

Prefaces

I have not had the time, or to be frank the inclination to write a single preface. Instead, here are all the attempts I have made so far to explain *The Red Telephone Box That Talks A Bit Like Me* and *Tuffin*. The two projects have become one and this has confused things. I have kept all the false starts and unrealised aspirations including a proposed appendix. The confusion has not been resolved but reading these prefaces may help you to understand what I had hoped to do and might still do with plenty of help from my extraordinary family and the NHS. I suggest a skim read.

I remember spending a night sleeping in a phone box with two friends called Stephen. We had deliberately contrived to be locked out of our youth hostel. The girls we were with thought we were stupid. One had chronic acne, and the other had large size breasts. The phone box smelt of urine and ash. It was just possible for all of us to sit so we sat on the concrete floor and talked. I don't remember what about, but I can guess. Fifty-five years later I have a phone box just like that one in my garden close enough to the road that people can pop in and listen to poetry and stories read by a computer-generated version of my voice. Well, they would if they could, but just at the moment I am working on it. Or I should be, but my cancer has relapsed and anything but sitting or lying is quite a struggle. So, I have contrived a comfy chair and a laptop with two screens from which I can reflect on these days and those days. By these means I can lace together a story that I hope one day will entertain visitors to 'The Red Telephone Box That Talks A Bit Like Me' or who read my poems and short stories.

So let's begin with that night in a phone box when I was about 14. Young enough that I had no idea what a period was until the spotty one showed me her entanglement of straps and pads which horrified and fascinated me in equal measure. Had I been sensitive to it at the time, that was my first exposure to the smell of sex had it not been for the urine and cigarette ash that overwhelmed it that spring evening with the stevens. After several hours on the floor adding to the layer of ash and a doze interrupted by an imagined or real bang on the glass door of the phone box we gave up and walked to Brighton via the middle of the dual carriageway and slept in a seaside shelter. I don't think we saw the sunrise but, in the poem, "Dreaming in Colour" we do and clearly, I was falling for spotty at least in my dreams.

I wrote poems at school. Yes, I was a bit of a Tuffin. An individual by default not design. Only one has survived and I cannot find it. It was inspired by the audience at the theatre and was very short cynical and bleak. My English teacher loved it but he was a communist arty type and only lasted a year at the school before being chucked out. I remember filling a notebook with spontaneous jottings during the lunch breaks – By then I was in love with Cheryl and so was Stephen T from the phone box. No rivalry as neither of us had a chance and the only way she would have known of our passion would have been if she had spotted us stalking her on her way home (always 50 yards behind her) or made out a whispered hello when we walked past her in the corridor. I was always able to churn them out probably regardless of quality until my friend (not called Steven) and rival poet discovered verse forms and rhyme. Given that he was much

cleverer than me his experiments were successful my feeble appropriations were not and when I submitted one as a 'fingers up' at an English essay on a book I almost certainly hadn't read the only comment back from the coolly unfussed teacher was 'the verse was rather laboured' – it was – he was right - and that was the end of poetry for me for 50 years when a diagnosis of incurable cancer reignited a willingness to speak unfettered by considerations of quality, form or rhyme.

In 2014 the poetry, the phone box and Tuffin appeared more or less at the same time. Both were a response to the illness which at the time seemed to have a bleak prognosis attached to it. A desire to say something publicly however small and uninterested the public were propelled productivity that I don't think I have ever experienced before. The two challenges, one largely technical and the largely artistic had to be addressed at the same time. How the phone box interacted with its audience and what form the content for that interaction took evolved simultaneously. The chronology despite only being 11 years ago has become quite confused but I can say the poetry started out as a mixture of nostalgia and anger. There was a bit of score settling for some bad experiences at primary school. It was as if I was reaching back as far as I could to find the same sense of indignation that I felt now. I didn't do the why me thing but I couldn't leave life without saying publicly how I felt even if it was just my fury at the policy of forcing young children to eat things they didn't want to eat such as in the poem "Grevitt"

Are those typical responses for someone dealing with serious life limiting illness maybe. Along with the poetry I was writing a blog. I tried not to make it a cancer blog but inevitably it became one, but it also leapt at any opportunity to display outrage at injustice. I read a lot of Anarchist literature and proclaimed myself one while not being completely convinced. I sided with the oppressed particularly those making the guardian headlines and along with lurid descriptions of my symptoms particularly those related to my bowels set about writing a blog to shock. Of course, it was peppered with anti-religious proclamations which perhaps surprisingly didn't tend to make it into the poems. I have vowed never to edit either the blog <https://gravityisahat.co.uk/> or the poetry <https://fleeting.gravityisahat.co.uk/> and consequently there are some true shockers up there. Evaluating the quality of any of my writing as long since eluded me. I can spot a substantial stylistic change brought about partly by a more positive prognosis and also as a result of advice from my literary children who I think suggested a smaller palette and greater simplicity of expression. I have an inclination to go quite operatic hardly surprising given that my wife is an opera singer and I spent my early career pre academia as an opera director. <https://chrisnewell.gravityisahat.co.uk/> From opera and a smattering of Shakespearean verse coaching using Peter Halls method (HALL, 2004) I had found my way to computer speech production with a proposition that computer voices could harness the power of actors to be effective speakers unencumbered by too much pressure to be 'real' (NEWELL, 2009)

The phone box was bought from Ebay. I was lucky to find one that could be delivered. Somehow the seller had the necessary original trailer used by the post office to install these wherever they were required as they featured a unique system which lifted the box from horizontal to upright allowing it to be placed in more awkward positions. My aunt had left me a small inheritance and so the cost was covered such that I had a decent budget to undertake the refurbishment and to

buy whatever equipment was required to make the 'art.' Old telephones had been the theme of some earlier installations I had shown at various conferences. I don't remember how I came to favour phones but I do know that I was keen to avoid any kind of visual accompaniment to the audio installations I had made, a sort of purist inclination to avoid an audience treating the installation as a computer game or as an interactive toy. This had led to some difficulties where it became necessary to provide some sort of visual framework for the exhibit, enough to draw attention to it but not too much to set up unrealisable expectations of visual treats. This problem persists with the current installation. From the outset I knew that the kiosk would have a phone of the same period, would look ordinary with as little as possible to give away its hidden capabilities but also it would not be a restoration of an authentic period telephone box. It would need various means of broadcasting sound, connectivity via the phone itself and various sensors to manage some simple interaction with the users. I didn't know how I would do this, but the restoration of the box itself gave me plenty of time to think about it. I am not sure if I always knew that the main voice would be a computer-generated version of mine, but that idea must have occurred early on because I don't remember creating a system for broadcasting any alternative voices despite having already worked with several others on earlier projects. I approached Cereproc who were kind enough to agree to make me a voice for no charge. A much more significant undertaking then than now. The hardware solutions were based on systems I had used previously that frequently boiled down to some sort of translation to MIDI data that could then be harnessed in music applications such as Pure Data to trigger events such as playing audio files. The telecommunication side of things was dealt with by Asterisk. A heavyweight application which created a powerful and authentic telephone network within a unix computer environment which enabled the user to use the dial phone as it would have been used with dial tones, rings, error tones etc. This was a long process involving a lot of trial and error but the system that eventually emerged did most of the things I wanted despite doing them in inelegant and inefficient ways.

Meanwhile the restoration had arrived at the decorative finishing touches, and I spent a short while in hospital after falling off a ladder painting the phone box roof. While concentrating on the technical side I dabbled with the creative side and had occasional visitors try it out as it evolved. The box acquired a certain notoriety in the neighbourhood; people were interested to know what it was all about and in general puzzled when I told them. I gave up disguising the fact that it was an artwork and found that regrettably 'art' as a shortcut to 'probably incomprehensible' was a quick way to close a conversation. A couple of teenage visitors pinched an apple each from our tree went into the phone box to eat them listened to a couple of numbers then left saying 'was that it.' This struck me as a beautiful summation of what to expect of an audio installation that does little but talk with a funny voice and perhaps a warning for future production decisions.

I found myself having to spend time documenting the technical development process so even more reason to neglect thinking about scripts, content, story and character. The K6 blog <https://k6.gravityisahat.co.uk/> came about as a means to record the processes required to make things work, particularly when things went wrong and I needed to rebuild or reprogramme something. Subsequently it served as an archive of technical materials with a view perhaps of giving it some sort of longevity once I was dead. This is unrealistic and I have since given that idea up however appealing it might be and have moved onto the video and this document as the

only platforms that could realistically be relied on to ‘keep it alive.’ While struggling to stay on top of the technical difficulties inherent in the build I filmed a sketch called ‘Ash’ based around the phone box. This came about because I was growing tired of speculating about what scripts might eventually work and wanted to just try something out. In retrospect I think this was a good decision. ‘Ash’ demonstrated to me the potential for a multi-dimensional approach. An artwork that straddled a number of different forms and presentation platforms without exclusively aligning itself to one. It would be a drama or more particularly a melodrama or even an opera, it would have some autobiographical content but would embrace fictional content as well. It would include research related content, but this would not be ring fenced away from the fiction. Ash was set on Halloween Night and featured a fake interaction between a visitor, me, and the voice or voices in the phone box. It played with themes that interested me such as my collection of smoking memorabilia and echoes of the night in the phone box with the Stephens. It was the first of many attempts that continue to this day, to relocate the phone box experience to the medium of film. Along with the telephone box material I was writing poems and stories for competitions or for pleasure. Merging the different materials into one consummate whole was yet to become a clear goal.

Should I be granted the opportunity (by the progress of my illness) to develop my work for the phone box then this will be the direction I pursue. The difficulty has always been to justify the various modes of delivery being employed and to marry the content (what the voices say) to those modes. The telephone voice is mine, mainly a now dated synthesis by (CEREPROC, 2018) pre recorded and therefore subject to various filters and effects and potentially live – delivered in real-time from the studio in the house to the handset or speakers in the phone box. The user has every right to know why that choice has been made. By making the narrative a conversation between Tuffin and other manifestations of Tuffin's voice the choice of voice ‘makes sense.’ The fact that Tuffin is a fantasy version of me is neither here nor there for the user.

I have always been a director motivated by music. If it comes to a choice between words or music, it will always be music for me. So, I want the experience to include not just sound but also music. The dial a disc device/conceit covers for that and will give me the opportunity to play non original musical material without apology.

In this case the chronology of the development of this artwork has had a direct bearing on the form it has taken. It is the product of a sustained period of development (10 years) during which I as the artist underwent a number of changes of mind not only relating to the main artwork (The Red Telephone Box That Talks A Bit Like Me) but also to other projects that I was pursuing at the same time, Tuffin, poetry, short stories, the blog, some music videos and a video essay. Eventually the only way I could manage all this was to think in terms of combining them into one. Hence this piece of writing. I want it to be writing, I want to leave a printed copy but as a document it is clammering constantly to include, video, audio, performance, interactivity and I may have to give in at some stage to those demands. I just don't know how best to do it. Meanwhile the document must be made.

It occurs to me now that I have already messed up the order in which the main characters (Me, Phone Box! Tuffin) in this drama appear. To dive in with Tuffin 1 without explaining how the telephone box was conceived and made would be missing an opportunity to show the kind of unity I have been striving for since recognising that I was interested in legacy and I am keen to leave something behind that represents a culmination of some sort of artistic quest that I would like to argue I have always been on but would probably have to concede that it was one that only came clear once I became ill. I also need to confess to the non aesthetic considerations that motivated me to embark upon the phone box project. Without knowing about those a whole dimension relating to my character as the lead artist would be missing, namely I am as motivated by tinkering with technology, the mechanical non aesthetic considerations that arise from that as I am by, let's sneer at art for a moment, "truth and beauty." The workings of a telephone dial from 1920 are as powerful a motivator to build to make to create art as the profound nostalgia I feel for that encounter with a phone box near Brighton and its connection to my teenage sexual awakening.

So I will swap my tweed jacket with leather arm patches for a Fred Dibner boiler suit and guide you through the phone box as $\frac{3}{4}$ of a ton of cast iron and bespoke red paint following byways from time to time to reveal the electronics and the coding that makes it talk and sing a bit like me.

Actually easier is to refer you to this interactive schematic. Click on the items to get a description and sometimes an image.

http://k6.gravityisahat.co.uk/?da_image=920

In addition, I have provided a comprehensive set of notes which constitutes a sort of manual for the phone box installation.

Which brings us to what was one to be the main subject of this piece. 'Tuffin.' Tuffin initially appeared as a character in passing in a poem in November 2014 "The eight fifty eight to Blackfriars."

So here is the first Tuffin or rather here is the first reworking of the first Tuffin that hints at the consummate approach yet to come.

Tuffin 1

My house is 'No. 4.' I prefer 'No. 4.' to 'Number four' although I am told that 'Number four' looks more like a writer. I don't agree. I prefer using numbers to words to get my point across. Outside No. 4. is a red phone box. This one.

On a faraway day from here, it was rainy I hear, my Dad telephoned the midwife to say I was ready. She arrived with her two corgi dogs, April and May and helped June (my Mother) push me out of her womb into the front bedroom.¹

As I arrive, I slip through a space time worm hole.² I zoom past mother's breast, terry nappies, Farley's rusks, whooping cough, jars of lamb and carrot, rides on the back of my mother's lady bicycle in a seat that rasps my thigh red and all that inconsequent crying, pucker as a four year old sporting a metaphorical tie that will grow bigger and bigger sizes and remain around my neck until a trip to Italy one August many years later persuades me, as a result of the inordinate heat, to take it off.

I emerge from the worm hole with my own Corgi dog called March and I am called Tuffin.

Tuffin thought a lot about thinking. Thinking was how he spent all the time left over after doing. He liked best to think about doing. So that way he didn't waste his thinking time.

Apart from the adjustments required to begin the relocation of the narrative to include the telephone box this Tuffin is less precious than the original. I slipped into an archaic style of language that was prevalent in my poetry and stories at the time. Its probably the result of a professional career spent in opera and classical theatre. Probably the most significant experience I had as a director was the time I spent with Peter Hall (HALL) coaching actors on his verse speaking method, the details of which can be found in the appendix. The principal innovation is to treat Shakespeare's verse in the same way as you would a musical score. Eliminating, at least in the early rehearsals acting choices and imposing a rigorous reading of stresses, pauses, breaths and inflections that discipline the individual performance and scenes with more than one actor speaking. I spent several months coaching actors to drop much of the naturalistic methods they had relied on throughout their careers. It was this stimulus that elicited the theme for my PhD (NEWELL, 2009) could computers be taught similar techniques to the actors I coached to deliver dialogue without recourse to naturalism. I like to think I have an affinity for language and rhythms that are not modern or naturalistic and were I ever to have been asked to direct a contemporary piece I believe I would have struggled. Over the duration of my writing career ie the last eleven years I have consciously sought to simplify and strip back the language that I use. I think I grew tired of trying to find clever ways of saying things when a simpler way worked just as well. This brought me up against the notion of good writing as I don't have the confidence to judge what good writing is, I have to assume it will announce itself in the way that good playing or good singing does. I get annoyed at the way people bandy the phrase around 'oh it's so well written' without explaining what they mean. An operatic aria well sung or a violin concerto well played is pretty obviously better than an example performed less well, good

¹ I note the coincidence, the processional nature of the dog's names leading to my mother's name as the first of many pleasing patterns, puzzles and serendipitous occurrences that provide my first dataset for a lifetime obsession with recording such happy accidents.

² The term wormhole was coined in 1957 by American physicist John Wheeler.

writing seems so much harder to spot but so much easier to claim with little expectation of being contradicted.

At this point in the development of the Tuffin character he is also relying on certain tropes that I subsequently lost interest in. Perhaps because they were not part of my character as a child. I was not meticulous in my dress, I had no interest in clothes until I was in my teens and needed to impress girls. I had no special relationship with numbers far from it – I was very much less than average at anything maths related. I did make lists and I think its reasonable to exaggerate this behaviour for dramatic effect but like a lot of things in my life these traits or obsessions were very transitory, I might make lists of all the tapes I had made of Radio 3 broadcasts but within a few weeks I would lose interest and never do it again. It is only recently that I have learned to stick with something and see it through to its conclusion but despite this slight upturn in my staying power I still have a frustratingly large collection of projects started and never completed. Here is a list of the main ones

- Photography (with chemicals)
- Playing a musical instrument (bass)
- Electronics
- Programming
- Music theory
- Rudimentary maths

But Tuffin is not me and were he to get too close to being me I think I would get bored. He needs to retain some theatricality and eccentricity for me to enjoy spending time with him. I see myself as a loser but neither I nor Tuffin see Tuffin as a loser, far from it, he believes in himself and never finds fault, he is incapable of self-criticism. I don't think I would be able to write about a loser.

Dogs featured prominently in my memories of childhood and the incident to which this one refers definitely happened, but the details may have been made more dramatic over time. I was told that Sykes our dog had been adopted by the kennel and was effectively on his holidays. The announcement happened in my parents' bedroom, somewhere I rarely went, so it bore a certain gravitas. I don't remember whether I believed it or not. I do know that I responded more dramatically than the announcement made me feel. I had a keen sense of drama and once I became aware of the difficulty they were having with relaying this event I would have wanted to punish them by appearing more upset than I really was. (Always bear in mind I was not a nice child – I hope I grew up to be a nicer adult). I do remember being aware that this was possibly a lie and if it was it was the first one my parents had told me that I had spotted. For that reason, it was quite an important moment. I believe the incident with the Pekinese dogs or dogs happened but what the outcome was I don't know, it may have been part of the story to legitimise the fate of Sykes. I had a thing about real things and it's true that I would have collected things that I deemed real, such as stones. For a short while I would nurture this collection by cleaning them, cataloguing them, I might even make a bespoke case for them – I was especially keen on making boxes for things – something I have continued to do to this day (perhaps the telephone box is just the most the elaborate manifestation of this impulse). At some point something would happen,

and I would stop collecting stones and move onto something else. I was particularly troubled by errors in the build, an ill-fitting hinge or a unintended split caused by a nail. This might be enough to cause me to abandon the project all together on the basis that nothing was better than a bad something. Only in adulthood have I learnt to manage imperfection. Had I not managed this I don't think any of my projects would ever have been finished. Of course the issue could have become critical because unlike the specialists in the repair shop I don't have the skills to do things properly so almost without exception my projects are full of imperfections some of them sufficient to cause my teenage self to abandon them and move on to a new project or collection which may well have eventually suffered the same fate. I am surprised that this trait did not cause me more frustration than it did but curiously I seemed to be able to maintain a belief that the right project, the one that would satisfy all the criteria I had imposed for that month was just around the corner and I just needed to get on with it.

Here is a list of projects in the order that they spring to mind.

An airport with aircraft made in balsawood. I think I ran out of glue, so the aircraft were held together with sewing pins and melted wax

Steam powered boats – they relied on a tin can of water heated by candles and a pipe ejecting the steam at the back giving propulsion. I made several of these and collected them in a cupboard next to my bed

A tripod for my telescope – much admired by my nan who compared the finish to the ones produced by her late husband – I obsessed with astronomical instruments and cameras for a long time, but it was always about the cleaning and making never the astronomy – that was too hard

The production of bombs, rockets, guns and various destructive devices. These will warrant a section of their own as they traverse so many facets of my struggle to define myself in my teens. A dangerous period that could easily have ended disastrously death injury or imprisonment were not out of the question.

At this point chronology really does slip away. There were three phases in my development all of which came about once I had moved from the lower to the upper school. In the lower school I tried quite hard but despite some effort in some subjects I was just not smart enough to do well. Accordingly, when I moved to upper, I decided with the stevens that we would abandon making an effort and 'drop out.' This was on trend at the time. Hendrix died in September 1970 which I believe would have coincided with my first term at the upper school. My first year as a teen at 13 years old. We were in a classroom after the lunch break and we all agreed that henceforth we wouldn't try we would 'Turn on Tune in Drop out.'

I developed a passion for music at about the age of 13 – at first it was Jimi Hendrix but then rapidly morphed into any music that would annoy my parents so that included the European contemporary avant-garde, Stockhausen in particular and then found its way to classical music in general (of course that didn't annoy my parents just confused them) and especially opera. I find this journey quite hard to reconcile with the person I was trying to cast myself as but underpinning it was a romantic inclination in which Zefirelli's Romeo and Juliet and Visconti's

Death in Venice both films with very prominent musical scores could comfortably share time and space in the desperate love lorn imagination of a teenage boy in search of a teenage girl . But that didn't account for the repertoire I gravitated toward. The late romantics were my preferred composers. I began with Mahler, then Richard Strauss, then Korngold thus cementing a fascination with Viennese music and culture. Delius was a discovery triggered by a fascination with Nietzsche and Freud that sprung from the same Viennese pool. I can only assume that my mum and my sister both very musical had embedded an appreciation of the classical repertoire in me without me being aware but I am still puzzled by the cultural pathway I chose for myself. I don't remember having a problem with coolness but I am surprised that a love of Berlioz Damnation of Faust as well as La Boheme and Prokofiev ballets was not ready ammunition for the 17-year-old the bullies looking for an easy target. Maybe I was more of a strong-willed individualist than I think. Nah I wasn't.

I remember planning my ideal house. It had features that our current home has today. Lots of speakers, a loggia (inside outside space) and a library mainly for LP's but also for books. It did not have a gym, a cinema, a rifle room or any of the features which would have scored more highly for coolness.

Somewhere in this flood of projects and passions emerged a band Le-Trec. I played Rhythm guitar. To pay for the guitar (from Woolworths) I sold two half sovereigns left to me by elderly neighbours. I never confessed to this my parents. They both died not knowing. Better that way.

I am writing this without a plan. My objective is to have a lot of material from which I will be able to assemble an edit that has an engaging and hopefully original form. I don't know what that will be but every now and then a hint of what could be drifts across the page. As I typed 'imperfections' such a hint swept across. I know that imperfections, mistakes, errors, serendipity, chance will become a significant theme in this piece. I will at some stage need to talk about it but it seems too soon, you know too little about Tuffin to be introduced to that critical part of him that he has no awareness of and consequently can't explain for himself. For now perhaps its sufficient to say the first book I ordered into my School library and then subsequently stole w. (CAGE, 1973). Of course, I didn't read it until I was in my 60's but I lived and dreamed it and so did Tuffin. Or did he?

I find it slightly annoying that when I write I have to contend with representatives from the innuendo spotting team. Childhood especially if you are a boy in a neighbourhood with a lot of girls is a time full of innocent sexual curiosity that lays down the ground rules for what then happens in early teenage. Unfortunately, I think most of us who grew up in the 1960's did not benefit from any sort of reassurance that what you are doing or feeling is normal and OK. The consequence is for early teenage experimentation to retain some of the grosser qualities of my childhood experiments, the phone box with the stevens and the poem illustrate this. I have yet to decide just how open I can afford to be in annotating those stories and poems that take teenage sexuality as a theme. If this is a legacy document, then does my family audience really need to know the grosser details of dad's behaviour with teenage girls even though for many years they were the primary driver of my behaviour and any creativity that coincided with it.

All these references to holes could be a problem but the delight Tuffin and Gill feel for the visceral connection with Tuffin's Dad prompts language that is endowed with sordid undertones. I am struggling to care at this distance from the real events upon which the section is based and their pertinence to the broader ambitions to the project I am trying to realise. I have to face up to the fact that this is likely to turn into a legacy project like the document my Dad produced summarising his life. I don't think the family was that impressed, I was, but that said I have no idea where my copy is.

It's been several days since I addressed this piece of writing (would it be better if I just said 'wrote.')

I keep dropping into my version of academic style. It comes quite easily and I don't much like the ease with which it flows onto the page. The last few days have been stressful as the news on my disease is not positive. I also got a visit from a specialist MacMillan nurse about managing my pain. I suppose I am getting signals from the professionals that hint at death whereas hitherto the signals have pointed toward treatment, the next appointment, the next chemo cycle. What would Tuffin do in these circumstances. To be frank I have no idea. That probably means I have an incomplete sense of who he is. I should know what he would do even if I don't know who he is. The best I can offer is that he would probably try to think himself away from the topic. Find something else to think about that he can manage. A making job or shopping or just going somewhere. I always tend toward the seaside when a character need to go somewhere and that would be an easy solution. "Tuffin receives a negative prognosis so goes to the seaside." - and collects some more stones.

I definitely have the glums today but writing about it is helping. If I could have a poo that would really help. I am hopelessly neurotic about constipation having been hospitalised with severe pain by it during the last illness flare up where I had to take a lot of pain killers. It's the opioids that cause it so you have a choice between pain and decent pooing or less pain but bad pooing. In addition I would say I have developed a neurosis about it such that my brain has become an incredibly effective anti-laxative, I can think myself into a state of complete bunged upness as readily as these words are flowing onto the page. Do I have a particularly effective mind at controlling my body. Certainly not in a positive sense. I can't do any positive mind over matter tricks but I can think myself ill or dizzy or in pain or unable to poo at the drop of a hat. What use is this skill, how can I direct it toward improving my life rather than bugging it up. That's a project for later.

During the last couple of days I have enjoyed corresponding with my niece who is training to be a councillor. I offered to share my experience of it with her and she seemed keen. I may copy some fragments from the correspondence into this document but I can't be bothered just now on a laptop wobbling around on my lap, its just too awkward. I grew up, at least from my teens onwards with an interest in psychology stimulated by reading the sexy bits in Freud with subsequently morphed into an ignorant cynicism that equated psychology with an approach to directing opera and drama which was longwinded and an indulgent and that I wasn't very good at. I think Tuffin is another response to that cynicism. Tuffin doesn't really do subtext. He is and does what the words say. Motivation doesn't interest him in the same way as it came to not interest me as a director. The problem was that the director who was most influential on me (Peter Hall) was very interested in truth, authenticity and motivation as long as it could be discovered in the text. I tried to emulate him only to discover that you need the genuine

inclination and the education to make a good job of that approach. I had neither. Fortunately, he had another side, the John Barton/Peter Hall verse speaking method that aligned much more closely with my inclination toward craft and technique as the first and last principal of acting. There is loads I could introduce here and I will find a way of doing so but I will just say that Tuffin is in part the product of that rejection of motivation as a driving force for narrative, character or drama. Tuffin tends to do things because he can or they just occur to him. It produces a sort of superficiality to the activities he engages in, to the world he participates in that hints at the absurdity which is the closest the work gets to have a philosophical underpinning.

I have been managing my own pain control along with the hospital and the GP and now the palliative care team. It's been something of a mess and I think my impatience to find a solution that doesn't leave me too gaga has not helped. Some of the stronger painkillers require that you move on and off them slowly to avoid mental health issues. I have not been doing that with the seriousness required and today I am feeling pretty lousy, somewhat panicky and depressed. I have managed to avoid these feelings for years now, obviously given the current turn for the worse it is explicable that I might feel a bit down but I think I may have triggered something with the way I came off gabapentin which appears to have a bit of a reputation for this side effect. Anyway, not much I can do about it except weather the storm and speak to the palliative care team on Tuesday. I am reluctant to use that term as it is associated with care of the dying but in fact its purpose is to manage pain you don't have to be dying, I am happy to say.

Its interesting managing the stylist gear changes I am indulging in when writing these sections. I continue to pursue the easiest and quickest path available to me which is to write a lot of material, not to worry about how it will all fit together or how the discordance will work. I don't think I have found the perfect approach but hopefully I am in the process of learning by doing and something fitting will emerge. Perhaps its worth setting out the vision for the work as it stands at this point.

The work will be a work of fiction however it will freely tap into fact and autobiography. It will retain some academic trademark features such as references, footnotes and a bibliography but not all of this will be legitimate academic content and there will be no way of telling whether a source is itself a work of fiction. My intention is for it to be a multimedia e-book. It will incorporate, sound, music, images and video. In theory it could also incorporate animation, tables and charts but I don't see that many opportunities for that. Its ambitious but constrained in so far as it will cover several of my key preoccupations of the last 12 years or so ('the illness years') but not venture before then. That means there are central roles for Tuffin, the phone box and my cancer. Other related topics that belong to earlier times may also get an airing as they are the subject of my poetry and short stories but I will avoid attempting to write an autobiography of Chris although I am writing an autobiography of Tuffin (who is a version of Chris). I have to admit it may be a condensed version of some of the materials on my websites a cheeky way of ensuring that they live on beyond me even in a substantially reduced form. The thematic links between the different websites (there are four covering: research, creative writing, the phone box and a blog that mainly details my illness) are not made apparent on the websites nor has the mixed fact and fiction approach been consistently applied.

Inspiration: Last week I was introduced to 10:04 by Ben Lerner. (LERNER, 2014) He is a major player in this form which I understand is called autofiction. I will be using aspects of this work to refine things I have attempted in the phone box film that he has done better than me. Other literary inspiration for the form and style of the work will include I Remember (BRAINARD, 1970) – who uses apparently trivial memories presented in diary list form to render an interesting and engaging narrative. I will also take any other recommendations for autofiction and auto ethnography (**Autoethnography - Wikipedia**, 2025)- I have yet to find out the relationship between these two approaches

PS: I was surprised to discover that I already had My struggle – several volumes (KNAUSGÅRD; BARTLETT, 2012) on my Kindle which is regarded as a significant contributor to the genre as well as being a bestseller. I seemed to have been drawn toward autofiction before discovering it as an approach that I might adopt. I had also been introduced to auto-ethnography for research in the social sciences and was investigating ways in which my project could be framed within this process. It seems that serendipity has played its part in determining an approach which I hope will be a good fit

I recently read the curious incident of the dog in the night, believe it or not, in German. It was suggested as a suitable text for a learner. I can see why but I can also see why not. The main character is autistic so his language is supposedly grammatically simple, why that should be I am not sure. The problem is he is also very smart and eccentric so while the words he speaks are simple the ideas they express are not. He also writes a lot of lists. Have I fallen into the trap of creating an autistic trope in the character of Tuffin. The thing is, should it matter? Tuffin is after all true to life. The fact that some of his behaviours resemble those of, dare I say, a similar character, is because there are some behaviours which characterise this kind of neuro divergence. Still to be honest I am still troubled by the similarity. Whether I do anything about it, well we will have to see.

I have never been an effective list maker or note taker. I have lots of notebooks in my studio with the beginnings of lists in them, but my enthusiasm usually tails off pretty quickly and they end up as incomplete reminders of projects not seen through. I have always admired those individuals who attend meetings or conferences and come away with a stack of easily legible, useful notes. I tend to leave with a heading a single note about something I can no longer place and a doodle. My excuse is that the act of taking notes causes me to not listen to what is being said, but I am not sure that's true. I think it shows how little I like the sound of other peoples' voices when competing with mine. I am usually quite bored when someone else is talking unless they are talking to me or about me. I have usually concluded that whatever they are saying is not something I need to know, I wouldn't need to remember it or refer to it in the future. During my first bout of illness, I was exceptionally impatient. I was rude to people by being silent. I confessed to those I could trust not to take offence, that due to my circumstances small talk really got on my nerves. By small talk I meant any topic that didn't happen to be of interest to me that day. The very act of saying 'nice day isn't it' made me bristle with frustration and impatience. I wanted to get home and not have to come up with any follow up material. It was as if I was impatient not to use up valuable serious talk time.

The start of an academic article

The telephone box, let's call it 'Chris', is part vocal cenotaph, part gramophone, part ventriloquist and part sound installation. Just occasionally it is a telephone and sometimes it pretends to be an oracle. It merges four ideas. The test devised by Alan Turing to validate whether a machine can successfully impersonate a human, known as the Turing Test (Turing, 1950). A method used in Human Computer Interaction (HCI) research in which a machine interface is controlled by unseen human operatives, known as The Wizard of Oz method (Kelley, 2018), the unrealized machine proposed by Thomas Edison for communication with the dead in his paper 'The Realms Beyond' (Edison, 2015) and a fascination and fear I share with many others for ventriloquism (Connor, 2000).

The motivation for the installation erupted when my cancer diagnosis in 2014 seemed drastic and I felt the need to leave some sort of memorial to myself and a record of my obsessions. Happily, that urgency has abated but the desire to bring the project to fruition has not.

The choice of a speech-based installation was inspired by my career in the vocal arts, mainly as an opera director, my research in computer generated speech and Auslander's observations on Liveness, (Auslander, 1999). In particular whether liveness (a quality of real-time live performance) can be faked in a non-live performance e.g. a recording. Knowing how to fake those qualities that make a performance feel 'live' was an aptitude I had seen in many professional actors. Of course, this met a different requirement from my telephone box as the performances were already live and the need was to create a sense of real-time spontaneity, of making every performance seem as if it is the first, but I speculated that the methods I saw exploited could be tried on non-live platforms such as computer voices. In particular I had become greatly enamoured by a method of speaking Shakespeare's verse that John Barton (Barton, 1984) and Peter Hall (Hall, 2004) had taught. The method required the actor to set aside factors such as character, situation and motivation and scrutinize the structure of the verse and prose, in particular observing line endings and full stops. This was a rigorous procedure required significant discipline on the part of the actor and needless to say some would rebel against its constraints, however those that persisted were often surprised when they discovered that the underlying 'musical score' of Shakespeare's verse, if followed, could produce some remarkably 'lively' results. I had the idea that this procedural method of creating this liveliness in speech was something that a computer, with no capacity for motivation or real emotion, might be able to replicate. Of course, there turned out to be so much more to it than that however a sense that the answer to convincing, emotional, characterful computer-generated speech could be something other than just aping human speech, still interests me.

It is a 1937 red telephone box known as kiosk no. 6 (K6) designed by Giles Gilbert Scott (Coltman, 2018) located in a quite North Yorkshire hamlet near the river Fleet. It was purchased from Ebay and restored by me. The telephone, model number 232 (Britishtelephones.com, 2018) looks and behaves like a normal telephone of the 1930's, it can ring, it has a dial, it has a dialing tone etc. Both the telephone and the box are iconic examples of industrial design much celebrated by the heritage community and in the case of the red telephone box, by the British tourist industry. I cannot deny the fact that these qualities acted as a draw for me. Tangible industrial objects, engineered to last, using materials like brass and Bakelite lend themselves to

reimagining in the way that many modern similar artefacts do not. Items such as these have given rise to Steampunk and the current vogue for decorative objects upcycled from vintage industrial detritus. Like any stage, the theatre in which it is situated, the world it inhabits beyond the proscenium arch is part of the experience. In this case the telephone box is both stage and theatre.

Dialing a number on the phone connects to a computer version of my voice. The voice was created by my good friends at Cereproc who are world leaders in this field. The method requires me to create recording of many hours of specific sample sentences from which all the sounds required for the production of intelligible speech using my voice can be extracted. The TTS Text to Speech Synthesis[1] technology then has to search for the right sounds and assemble them into words and sentences. It produces a slightly unreal version of my natural speaking voice. It certainly sounds like me but the emotion is largely gone and the inflection may sound rather false. Most clearly it doesn't understand what it is saying. This is a limitation of all TTS systems at present. While it is possible to create a decent human like effect using a machine the machine has no awareness of the meaning of the words it is delivering. This can result in small silly mistakes or more serious chunks of unintelligibility, but it always results in unbelievability, it simply isn't a credible person speaking, hence so far at least, TTS has not caught on for audio books. In theory any text can be passed to it programmatically and it will attempt to render it in my voice.[2] In addition to the computer voice, recordings of my real voice are used, some subject to significant digital signal processing to produce weird and wonderful effects. Finally, and only for specific scheduled performances, unbeknown to the user, my live voice can be added to the mix

Auslander, P. (1999) *Liveness: performance in a mediatized culture*. London, New York: Routledge.

Barton, J. (1984) *Playing Shakespeare*. London: Methuen.

Britishtelephones.com (2018) Tele No. 232. Available online:
<http://www.britishtelephones.com/t232.htm>

Cereproc (2018) Welcome to CereProc | CereProc Text-to-Speech. Available online:
<https://www.cereproc.com/>

Coltman, R. (2018) The Telephone Box | Kiosk No 6. Richard Coltman. Available online:
<http://www.the-telephone-box.co.uk/kiosks/k6/>

Connor, S. (2000) *Dumbstruck: a cultural history of ventriloquism*. Oxford: Oxford University Press.

Edison, T. (2015) Thomas Edison: The Lost Chapter • ITC Voices. Available online:
<http://itcvoices.org/thomas-edison-the-lost-chapter/>

Hall, P. (2004) Shakespeare's advice to the players. London: Oberon Books.

Kelley, J. F. (2018) Where did the term Wizard of Oz come from. Available online:
<http://www.musicman.net/oz.html>

Turing, A. (1950) Computing machinery and intelligence. Mind, VOL. LIX. No.236., 433-460

Another incomplete attempt at an academic article

The Red Telephone Box That Talks A Bit Like Me.p
A performance for nobody.

The installation

This article documents a digital public art performance project that never happened. At least not in the way it was intended.

The Red Telephone Box That Talks A Bit Like Me is a 1937 British K6 telephone box equipped with a vintage dial telephone connected to a computer-generated version of my voice and to various other sound sources. I built it to deal with a diagnosis of incurable cancer while pursuing a professional career as an opera director and an academic career researching computer generated voices. I intended it to be a platform for my unexpurgated performance of 'Man dying of cancer.' The installation took five years to build, and the design changed many times as I discovered new possibilities and abandoned things that didn't work.' Just as it was due to be presented to the public, the COVID lockdown wrecked all such ambitions, and an installation that had evolved as a platform to broadcast my most intimate musings gave way to a platform for me to talk to myself or a performance for nobody.

Introduction

In this article I consider how a project born out of a personal crisis and fear, oscillated between; a way of distracting me from my illness, a means of venting my emotions, a means of reconnecting me with my research preoccupations and a therapeutic tool to help me through lockdown. It is written using a loose auto ethnographic approach to capture a process where research and personal objectives changed according to the circumstances at the time. As such it may provide a case study for art that inadvertently interleaves very personal concerns with academic research, that sets out to be one thing and ends up another, as a digital performance piece that never finds an audience or as a failure in one respect that succeeds in another.

Despite the prolonged period in which the installation had to remain closed my intention is to open it to the public with new material in the future. At the moment I am preoccupied with recording its first failed incarnation which may turn out to be its most interesting.

The article is accompanied by a short video essay lasting fourteen minutes.

On Vimeo: <https://vimeo.com/1030480083?fl=pl&fe=sh>

On YouTube: <https://www.youtube.com/watch?v=z9OXN4AwKDM>

It illustrates many of the themes raised but in a more abstract, less academic style. I hope readers will feel inclined to watch the video, either before reading the rest of this article or after having done so.

Motivation

In 2014 I was given a diagnosis of multiple myeloma and amyloidosis. It could be treated but not cured. I would have to put my work as an academic at the University of Hull on hold and undergo extended chemotherapy. I had just completed a multidisciplinary project (The Creative Speech Technology Network CreST) (Edwards and Newell 2013)

<https://k6.gravityisahat.co.uk/media/>

This project explored ways to design computer-generated speech using creative principals. In common with much of my work it was highly interdisciplinary and was focused on delivering practice based outcomes. It included contributions from users of computer speech systems (people with cerebral palsy), computer scientists, engineers, artists, speech therapists, poets, musicians, actors and singers. One of the outcomes was a roadshow that featured performance, music, poetry, film, games and interactive installations using computer generated speech. After the project finished we hoped to get further funding to continue this work as a counterpoint to the then emergent industry drive to create computer voices indistinguishable from human voices. CreST had demonstrated that non-human speech had creative potential by giving voice to a new species of non-human or hybrid performer. This became the focus of my own creative work. A month after completing the roadshow I was given the cancer diagnosis.

Fortunately the chemotherapy was effective, but I was very vulnerable to infection and as a consequence the university agreed that I would teach from home on Zoom. Despite the illness I still had ambitions to use creative arts practice to develop my research so I purchased the red telephone box and set about building an audio centric performance space from which I could continue the work of CreST, conduct experiments, try out ideas and mount performances. Other personal factors played a significant part in the evolution of the project. I wanted somewhere that I could be myself the expressive artist rather than the patient with cancer. Ironically the phone box with its hybrid versions of me provided that.

The installation

The following sections specify features intended to enable interaction with an audience. This has yet to come to pass but rather than repeat this fact I will refer to these features as if they had operated as intended.

Other than the site for the box and the use of computer generated speech I had no specific plan for the installation. The design that emerged was the product of a number of factors:

- The box itself had to be restored first, and some discoveries helped determine the design such as the particular acoustic properties of a cast iron and glass box and the fact that it supported a wooden floor.
- Aesthetically I wanted it to look as close as possible to its original design. I felt it would be less engaging if its new purpose wasn't a surprise.
- Practical concerns regarding what I could safely do. This was brought into sharp focus when I fell off a ladder painting the roof of the box and was hospitalised.
- The project was entirely self-funded and was not supported by the university. It had to be done in my spare time with my own money
- My technical capabilities were those of an artist who could programme a bit, not those of an engineer.
- During the build passers-by would try things out. This evolved into informal testing and led to some changes.
- The only factor effecting the texts to be spoken was I determined that it would not be overtly about cancer. Although my illness would be a driver it would not be the subject.

Components

As of the writing of this article the following describes the key components of the installation.

The telephone box is installed on a quiet country lane in a village in York.

The lane runs next to my house, so it is situated on my property but with easy access (about 1 metre from the road) for passers-by. It has data, audio and video connectivity back to a studio in the house providing multiple channels by which I can monitor and control interaction with the user. The principal user interface is a 1930's Bakelite phone with a rotary dial.

No modifications are made to the phone thus the lo-fi sound quality is appropriate to the vintage technology. Four modern loudspeakers and amplification hidden from the user complete the sound distribution system. Various sensors monitor presence, door opening, dwell time and control the lighting at night. Other sensors trigger the telephone to ring and abstract sounds to play when users approach the box.

The computer speech is rendered in real-time using text to speech synthesis (TTS) with some additional colour and expression embedded using Speech Synthesis Mark-up Language (SSML) (W3C, 2005). For a more detailed description of the technology employed as well as an interactive schematic https://k6.gravityisahat.co.uk/?da_image=920

Evolution

It was the result of a chance occurrence that the project came to pass. Without my illness it would never have happened. My illness redirected my grander outward facing research ambitions such as another roadshow toward something more personal and intimate. The extremis of my personal situation as well as the absence of a deadline or the sort of official oversight a funded research project would necessitate, allowed me to experiment freely, and the unplanned nature of the installation, the lack of a robust design, my ignorance of the technological systems required led to a number of unintended outcomes.

- Originally, I had hoped that some sort of speech recognition would be built into the system but the technology available to me at the time and a very poor internet connection made that unviable.
- I hoped to broadcast environmental sounds in the vicinity of the box however these were deemed rightly to be noise pollution.
- I tried a number of different methods to inform users, under the age of about thirty how to use a dial telephone (a problem I had not anticipated). I was keen to avoid video of any kind as the project was an auditory one and any visual media was likely to create an expectation of more, resulting in disappointment when none was delivered. I also wanted to maintain a friendly welcoming tone rather than a proscriptive one.
- Having as much time to experiment and learn new things significantly advantaged some of the software solutions I eventually developed. I did not know any telecommunication programmes but in order for the old dial telephone to connect to a modern computer (with convincingly antique behaviors) I had to dedicate time to learning Asterisk and how to implement the associated hardware.
- This resulted in an authentic rhythm to the interaction with the user. Like the original analogue telephone system it was slow to connect, created some interesting sounds in the handset and was prone to error.

Voices, scripts, sounds and interactions

The installation resembles a service provided by the General Post Office that existed in the 1960's in the United Kingdom known as Dial-a-disc. <https://longlivevinyl.net/2020/05/07/the-completist-dial-a-disc/>

The user could dial a number to listen to the latest pop songs for which they would be charged. In The Red Telephone Box That Talks A Bit Like Me they access material performed by three different versions of my own voice. A computer-generated version (my voice synthesised by Cereproc <https://www.cereproc.com/>), a recorded version and a live version. It is largely spoken, sometimes sung, digitally processed and filtered. As already stated, the fact that the listener may not be aware of which voice they are hearing is the principal conceit of the installation.

Complex interaction with the user is provided by the ‘Wizard of Oz’ (KELLEY, 2018) opportunities inherent in the inclusion of my live voice. As previously stated, this is facilitated by a direct connection to a studio in my house from which I can see and hear everything the user does and says. So, while they may have the impression they are talking to a machine this can be disrupted when the machine appears to know more about them than a machine could. To avoid any ethical concerns the user is made aware when they enter that they are being recorded and surveilled live.

Creative themes

Liveness

During my research career I had become fascinated by the notion of liveness (AUSLANDER, 1999) and how an understanding of how liveness operated could be applicable to creating computer voices that while not attempting to be realistic could still be engaging. Being able to switch between different versions of the same voice with varying degrees of ‘liveness’ seemed a rich area for creative exploration. The platform gave me the opportunity to put some of these ideas to the test while also experimenting with a range of different combinations of media. Three research themes had that I felt worthy of further exploration had consolidated during CReST; (EDWARDS; NEWELL, 2013)

Melodrama

<https://www.theguardian.com/music/2005/aug/19/classicalmusicandopera.edinburghfestival2005>

<https://drfeezell.com/melodrama/melodrama-historicalcontext.htm>

(mixing music with notated speech),

Silence

The use of silence to evoke, tension, surprise or liveness and chance operations where control was subsumed to stimulate serendipitous occurrences (Newell 2009). I had already written extensively about these themes but had limited opportunities to test them in the field.

What is it?

What was less well defined was the domain in which this installation would operate. ‘As what sort of entity’ would it be viewed and evaluated? Is this research? Is this art? Is this therapy?’ What, if any audience would find it interesting. What was its purpose? This uncertainty in many ways reflected my own journey in developing the project. It starts as a distraction while I deal with a frightening diagnosis. Building it, gives me something demanding to do (the process turns out to be playful, like a very absorbing hobby with not much planning and a lot of trial and error). As it slowly materialises its role as a mouthpiece for my inclination to perform predominates. I have things I want to say, and I want to perform. As the immediate crisis of my diagnosis fades and I re-engage with my role as a researcher at the university it acquires more

serious career focused objectives. Could it provide a robust research platform? Could I gather some data and publish results? For example, comparing dwell times or gathering user feedback comparing the liveness of the different voice types. I believe these would have remained open questions probably resulting in a fusion of purposes had not lockdown brought about an abrupt curtailment of any ambitions to engage with a real audience and a radical change of purpose.

Lockdown

Prior to lockdown I was intent upon producing something that would sustain the interest of an audience and not just due to the novelty of the experience. It was essentially an offering directed at the public in the public space, that they may happen upon unexpectedly. Part of the pleasure I believed would be the incongruity. I predicted that the concept would be engaging. A vintage phone box, in the middle of nowhere, with a restored 1930's phone, making random noises and saying random things would have a superficial appeal whatever it said or did. However, I had decided from the outset that I wanted to use the platform to vent my performative voice, muted and frustrated by the illness. I wanted to say whatever came to mind when it came to mind, for it to be unexpurgated and not over considered. The scripts would be determined by my mood and the evolution of my illness and treatment. In part it would be a performative version of the blog I wrote to exorcise some of the emotion generated around my illness but it would do so freely using words, music, sounds, songs and poetry, with real life freely and randomly supplanted by stories. With that in mind I tried to write the scripts and create the audio quickly so that a quality of 'making it up as I went along' might be evoked. Inevitably a life-threatening diagnosis had also released waves of nostalgia and self reflection that provided an additional lyrical source.

Texts spoken using text to speech synthesis rendered by a computer version of my voice would provide most of the speech with recordings and live interjections adding to the mix. I surmised that no call would last more than three minutes and that most should be significantly less than this. This decision was confirmed by callers who would try out the installation during the development period with whom I would chat.

They were often going for a country walk and would pop into the box out of curiosity. Rarely would they stay for more than a few minutes but perhaps an impatient dog or young child had something to do with this. In addition, the very nature of computer-generated speech prior to some of the contemporary AI solutions made extended listening unappealing.

Talking to myself

Lockdown effectively locked the telephone box to all users except me. As a consequence I found myself talking to myself.

When lockdown came the installation was approaching readiness for exposure to the public. It quickly became apparent that it would be significant contagion hazard as it required close proximity speaking into the mouthpiece in an enclosed environment. There was no way round it. I locked the door and turned off the power. At first this was very disappointing. While I had no expectation of large numbers of visitors having just some would have fulfilled my need to vent publicly however, I felt bound to continue the project but with no expectation of an imminent

change to the lockdown conditions. Coincidentally I had undergone counselling to combat excessive anxiety and my councillor, and I had discussed the phone box and its significance to my mental well-being. He agreed that it could be an effective way of fictionalising my fears and potentially defanging the anxieties that I had always experienced but had been amplified by illness and then by lockdown. This became my new approach. No longer directed toward an external audience the project turned back on me and the scripts developed into conversations with myself. This was not a significant change to the content which as already stated was highly subjective but the liberating effect of knowing I no longer had an audience to serve, gave me the space to go further with the flights of fancy, less requirement to make sense and freedom to ask questions without providing an answer. I turned the power back on and began to regularly record conversations from within the box sometimes broadcasting them live to friends and family.

While I cannot claim that the phone box is a generalisable therapeutic tool I can vouch that the following applies in my case

1. The act of writing conversations between different manifestations of oneself and hearing them broadcast back to you does appear to help organise conflicting versions of the self. A pensive self might give way to an absurdist self, some tension may be released, some attempt to find the most authentic voice may occur and this may be illuminating.
2. The particularities of the space, intimate, enclosed, isolated and its performative nature made for a liberating environment where anything could be said and heard without recourse to any particular convention or style. As nobody else was listening it didn't matter whether the performance was 'good or bad' all that mattered was that it existed.
3. Wrapping together themes that represented cornerstones in my creative and academic life when facing a potential death sentence was important to me. I am not pursuing a legacy but I am pursuing completion. My illness interrupted an important outpouring of creative energy that I did not want to leave unresolved. Making the installation, making the video essay and writing this article has helped resolve it.

Determining whether these findings are truly meaningful ie. that there are mental health benefits to engaging with multiple representations of self, being able to sculpt them into 'characters' representing different levels of liveness or authenticity and broadcast them to yourself would be an interesting project, but it's not this one. This one started as escape and ended as consummation, it has provided closure, incoherent to everyone but me perhaps but then I never intended otherwise.

Sharing the space

Although my illness persists and my anxieties and preoccupations remain largely unchanged, the lockdown has been lifted and my desire to vent fiercely has abated so The Red Telephone Box That Talks A Bit Like Me can become a more traditional performance platform something I had never planned for it to be. The introspection remains, the experimentation with liveness, melodrama and serendipity remains but the personal extremis is no longer such a significant driver. You might say the installation has grown older and milder as I have grown used to the

precarious prospects for my life and more concerned to create ‘good’ performances. The material has evolved again, and the next iteration is designed to explore the uncanny possibilities (Mori 1970) of the multi voice format. I have also made moves to establish it as a venue for sound artists to experiment with its unique capabilities and limitations by inviting writer and musician colleagues to contribute new material using their own voices.

Discussion

While I am not recommending serious illness as a trigger for a creative rethink I believe in this case being forced to set aside interdisciplinary collaboration has allowed me to drill down on themes that underpinned much of my enthusiasm for the field. Notions of ventriloquism, the uncanny valley and the use of wizard of oz techniques to explore questions of liveness are particularly present in this installation in a way that I suspect my hitherto collaborative approach would not have revealed as effectively.

In retrospect I think the absence of sophisticated interactive choices for the user has allowed me to focus on trying to produce an environment where vibe and broadcast content are prioritised. Speech recognition even in its most advanced form so often reduces interaction into a contest between user and machine to optimise comprehension. This would potentially negate my attempt at blurring the line between real and synthetic and drive the experience of the installation toward that of a competition or game where the user attempts to confound the system.

Conclusion

In this article I have documented the development of an installation The Red Telephone Box That Talks A Bit Like Me. I have shown how a cancer diagnosis triggered a desire to assemble a consummate performance environment in which the twin strands of my career as an opera director and as an academic researching computer generated speech could be combined. I have detailed the three themes that drove the creative approach namely; utilising techniques to generate liveness, melodrama, the mixing of structured speech with music and sounds and stochastic operations that provide serendipitous opportunities. I have documented the changes that occurred when lockdown came and a live audience ceased to be a possibility and the emergence of some therapeutic benefits that have helped me work through aspects of my illness and different manifestations of self.

References

AUSLANDER, P. **Liveness: performance in a mediatized culture**. London, New York: Routledge, 1999. x, 179 p. p., v. Book, Whole). 0415196892 (alk. paper) 0415196906 (alk. paper).

Autoethnography - Wikipedia. 2025. Disponível em:
<https://en.wikipedia.org/wiki/Autoethnography>.

BRAINARD, J. **I remember**. New York: Angel Hair Books, 1970. [35] p. p.

CAGE, J. **Silence: lectures and writings**. Wesleyan pbk. ed. Middletown, Conn.: Wesleyan University Press, 1973. xii, 276 p., v. Book, Whole). 0819560286 (pbk.).

CEREPROC. **Welcome to CereProc | CereProc Text-to-Speech**. 2018. Disponível em:
<https://www.cereproc.com/>.

EDWARDS, A. D.; NEWELL, C. Creative Speech Technology: editorial introduction to this special issue. **Logopedics, phoniatrics, vocology**, 38, n. 3, p. 91-95, 2013.

HALL, P. **Shakespeare's advice to the players**. London: Oberon Books, 2004. v. Book, Whole). 1840024119.

KELLEY, J. F. **Where did the term Wizard of Oz come from**. 2018. Disponível em:
<http://www.musicman.net/oz.html>.

KNAUSGÅRD, K. O.; BARTLETT, D. **My struggle**. 1st Archipelago Books ed. Brooklyn, NY

LERNER, B. **10:04 : a novel**. First edition. ed. New York: Faber and Faber, Inc., an affiliate of Farrar, Straus and Giroux, 2014. 244 pages p. 9780865478107 (cloth).

NEWELL, C. **Place, authenticity, and time: a framework for liveness in synthetic speech**. 2009. (PhD) -, University of York.

W3C. **Speech Synthesis Markup Language (SSML) Version 1.0**. W3C, 2005. v. Book, Whole).

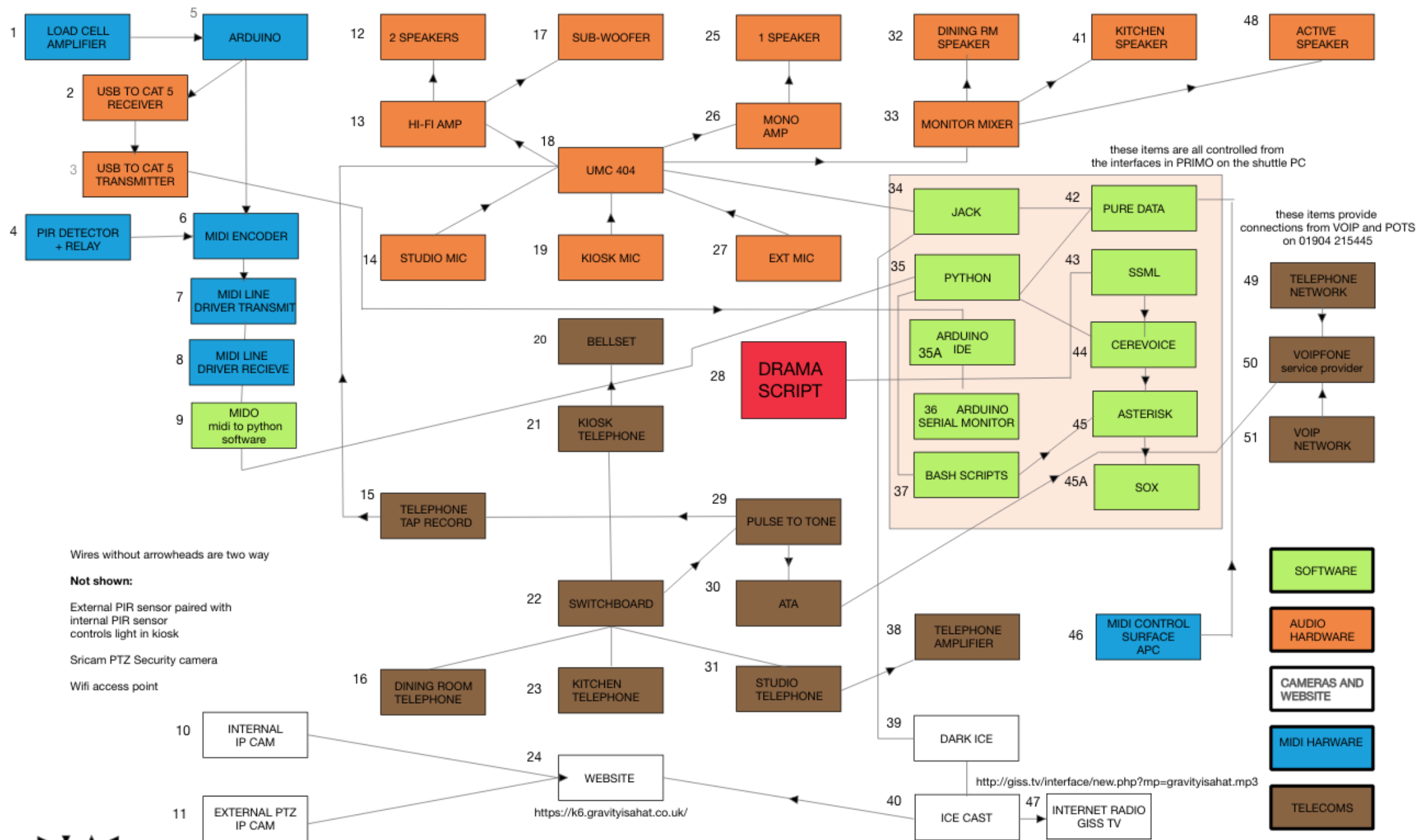
The telephone box that talks a bit like me

By Christopher Newell

The Critical Hardware

Key

- Title numbers refer to numbers on schematic



External PIR sensor – on pole L of kiosk (not on schematic)



Turns on and off the lights in the phone box. It is paired with one in the kiosk so that a someone moving in the kiosk keeps the light on. If they are very still the light goes off which is not ideal. Requires power from the kiosk.

11 - External PTZ camera



Focused through the left hand side window of the kiosk onto the telephone. Requires power from the kiosk.

27 - External Microphone



Picks up sounds external to the kiosk.
Requires power from the kiosk.

4 - PIR with relay



PIR sensor focused on the kiosk door and mat. It triggers a relay that closes a circuit and the midi encoder sends a midi note on to play a sound or to ring the telephone in the kiosk. Requires power from inside the kiosk.

1 - Underfloor Sensor – Loadcell amplifier



4 load cell amplifiers are connected to an Arduino uno connected to a relay that closes a circuit triggering the midi encoder to send a midi note on to play a welcome message in the kiosk.

21 - Phone in kiosk with 20 - bellset attached



Principal audio interface. Bellset is attached on the base. This is a conventionally wired telephone with a standard BT connector. It is directly connected to the studio switchboard

Picture on Canvas (not on schematic)



The picture hides 3 speakers that provide the principal ambient noise in the kiosk

12 & 25 - Speakers behind Canvas



These are connected to the left and right channels of the stereo amplifier and the single mono channel on the mono amplifier giving 3 semi independent mono channels

10 - IP Camera



Focused on the user. Also has sound but with significant latency issues.

19 - Internal kiosk mic



Mic picks up sounds in the kiosk. Used for recording user stories

Internal PIR (not on schematic)



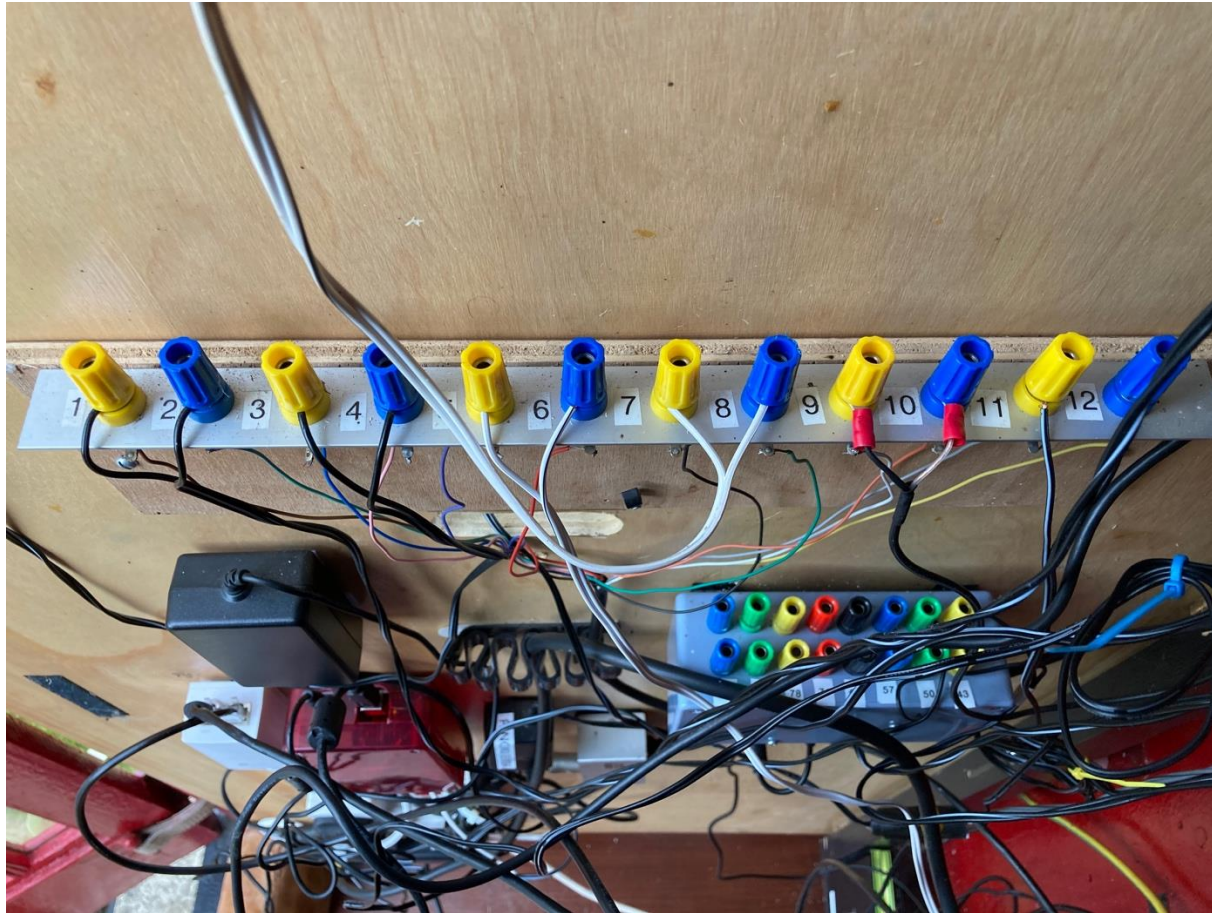
Paired with the PIR outside it keeps the light on in the kiosk providing the user moves about

25 - Speaker behind the canvas picture



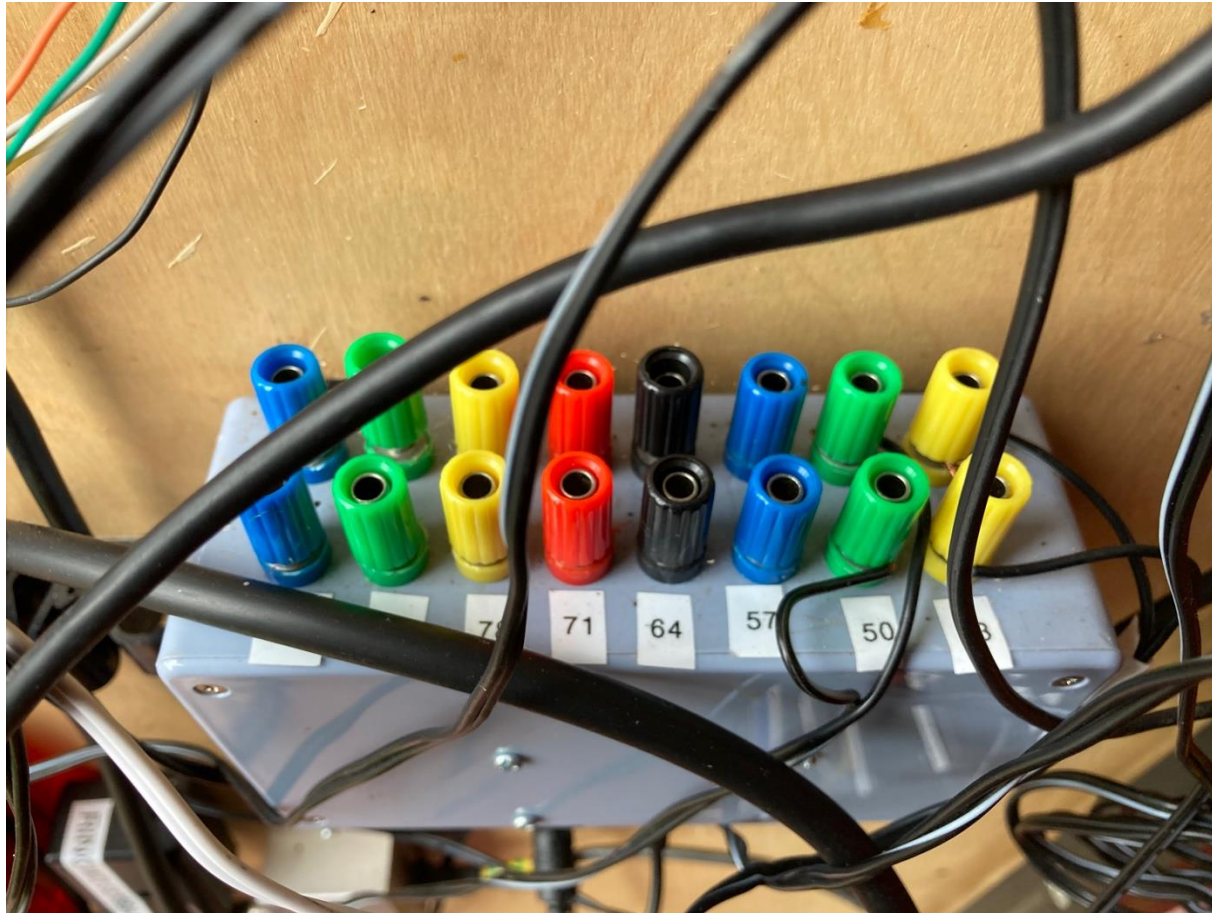
One of the 3 speakers distributing 3 separate mono channels

Audio patch board (not on schematic)



All audio is routed to and from the kiosk and the studio using this patch board and it's pair in the studio

6 - Midi encoder



This only uses two of the 8 pairs of circuits. Closing the circuit on any numbered pair sends the midi note on number indicated back to the studio. The PIR sensor that triggers audio and the underfloor sensor that triggers the welcome message send note on 50 and 43. The other channels could be used for other midi sensor devices in the future.

2- USB extender - Receiver



This extends USB connections via CAT 5. It is used to monitor the output from the Arduino. It needs frequent reconnecting at the studio end to be functional. Fortunately monitoring output is for interest only.

5 - Arduino



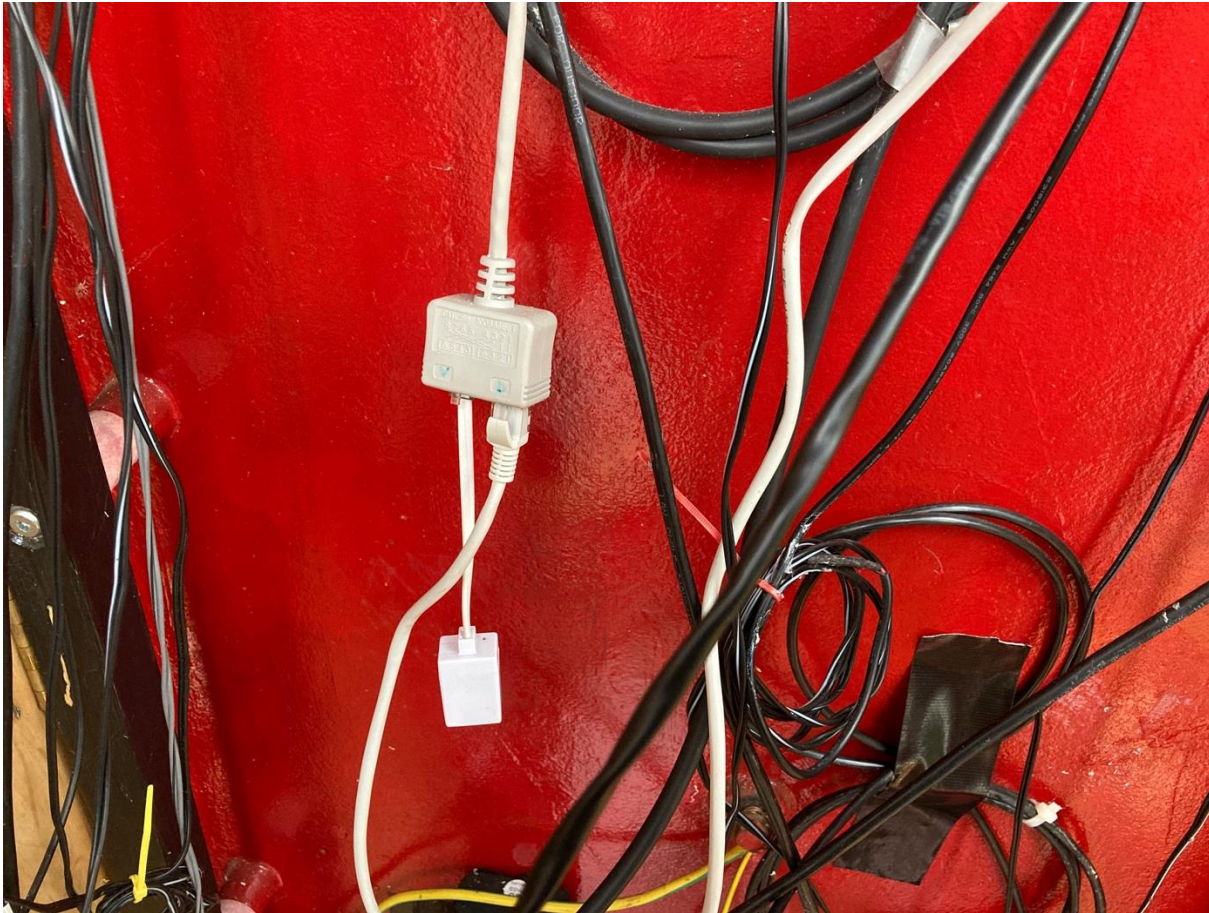
This connects to the loadcell amplifiers under the floor. When someone stands on the floor Arduino closes a relay that send a midi note value via the midi encoder back to the studio indicating that someone is in the kiosk and triggering a welcome message.

7- Midi line driver (slave)



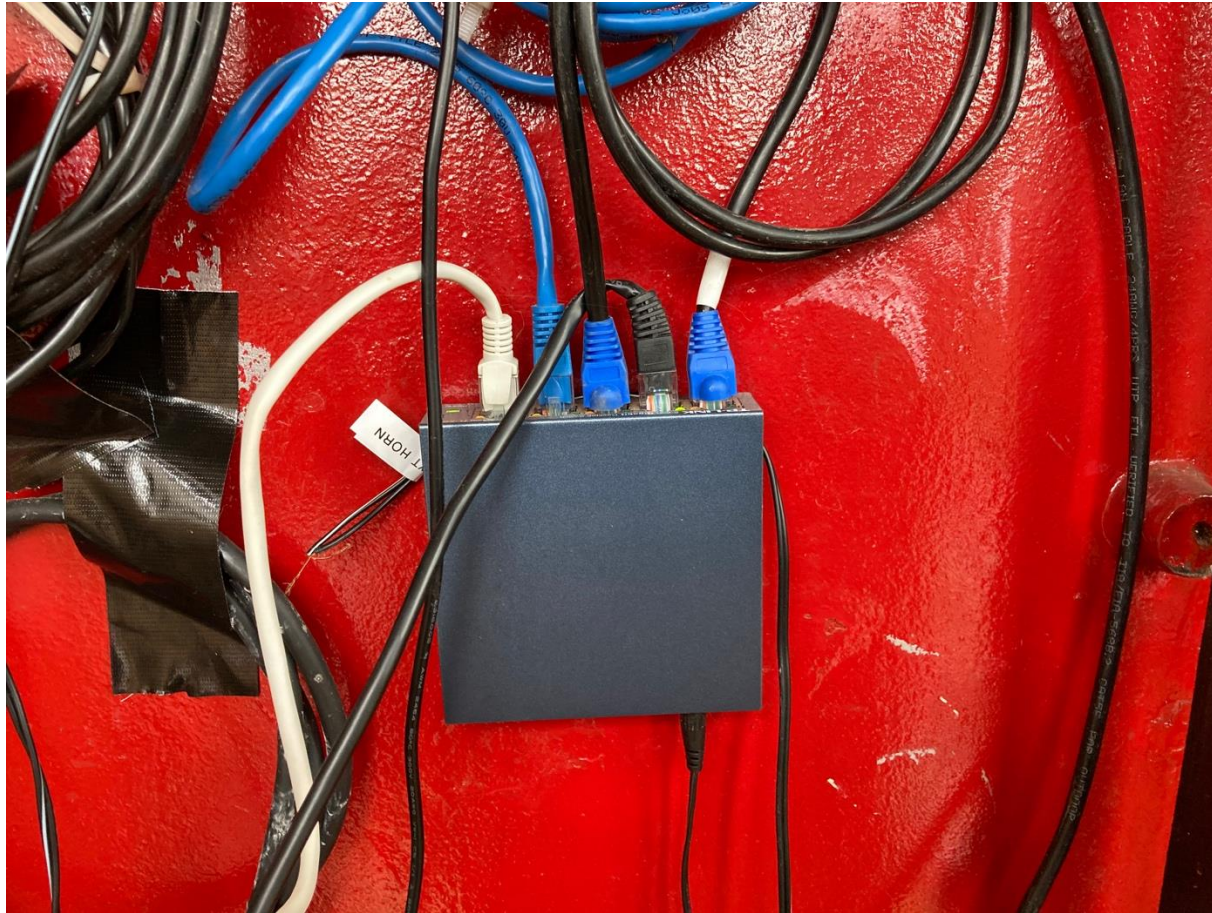
The midi line driver converts midi data so that it can be transmitted by CAT 5. It has a master connected at the studio end to convert back to a standard midi connector.

Data and Voice connection (not on schematic)



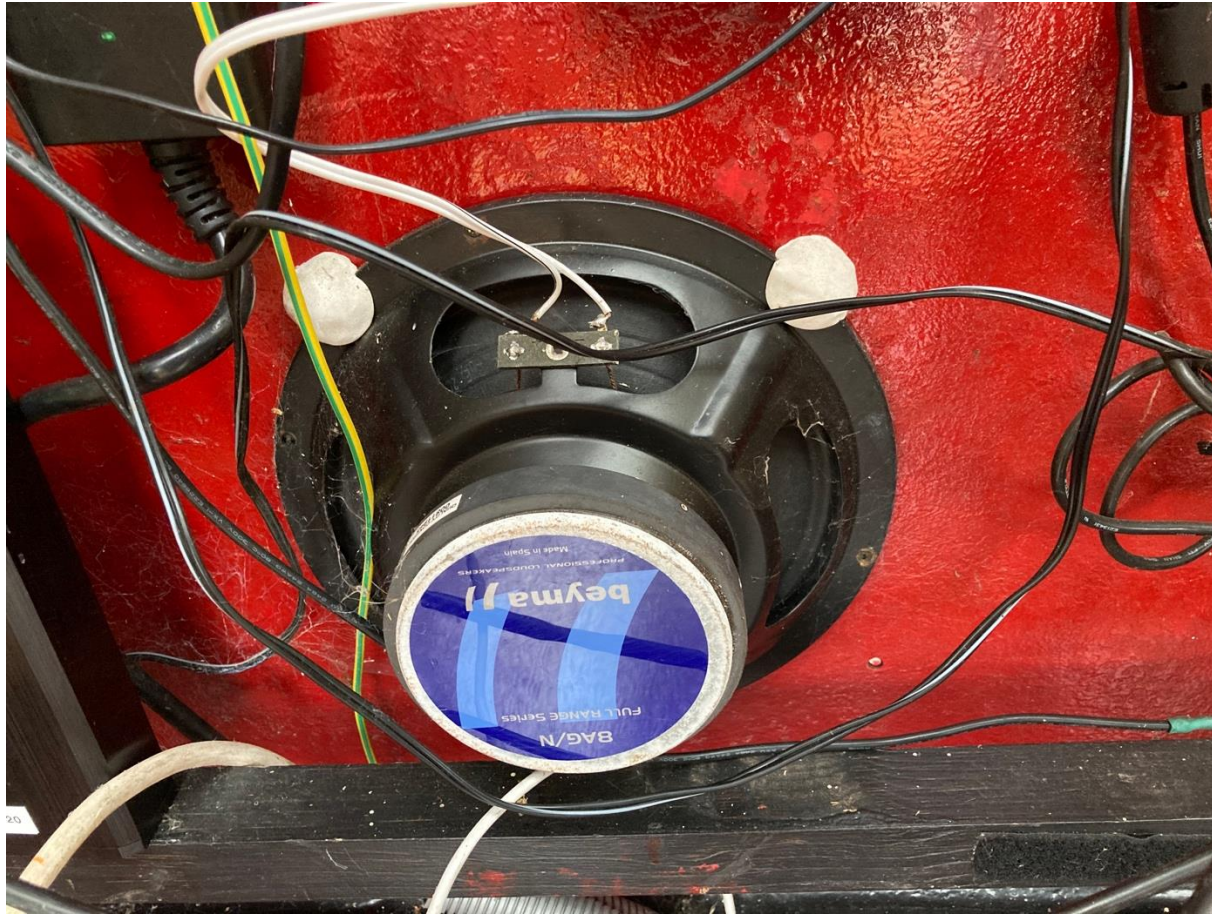
Data and Voice are relayed by one Cat 5 cable back to the studio. Here you can only see the CAT 5 cable coming from the network switch as the telephone is disconnected.

Switch (not on schematic)



A standard network switch distributes data to all the networked devices

17 - Subwoofer



A subwoofer signal is sent from the hi-fi amplifier in the studio. The speaker is mounted facing the back wall of the kiosk. I am not sure that this is ideal. A bass transducer maybe a better solution.

External power supply – Alarm – speaker (not on schematic)



Behind the kiosk is an external power supply for maintenance purposes a siren for the alarm and a currently redundant external horn speaker

Fanless PC's (not on schematic)



The software system is installed on a Shuttle Fanless Pc running Ubuntu. The windows XP machine shown is required to monitor the Foscam IP video cameras as there is no Linux compatible software. The other shuttle computers are for spares or testing.

KVM switch (not on schematic)



The KVM switch switches between the 4 computers, 3 monitors and the one keyboard and mouse

31 - Studio telephone, 38 -amplifier, 22 - switchboard, 14 – studio mic

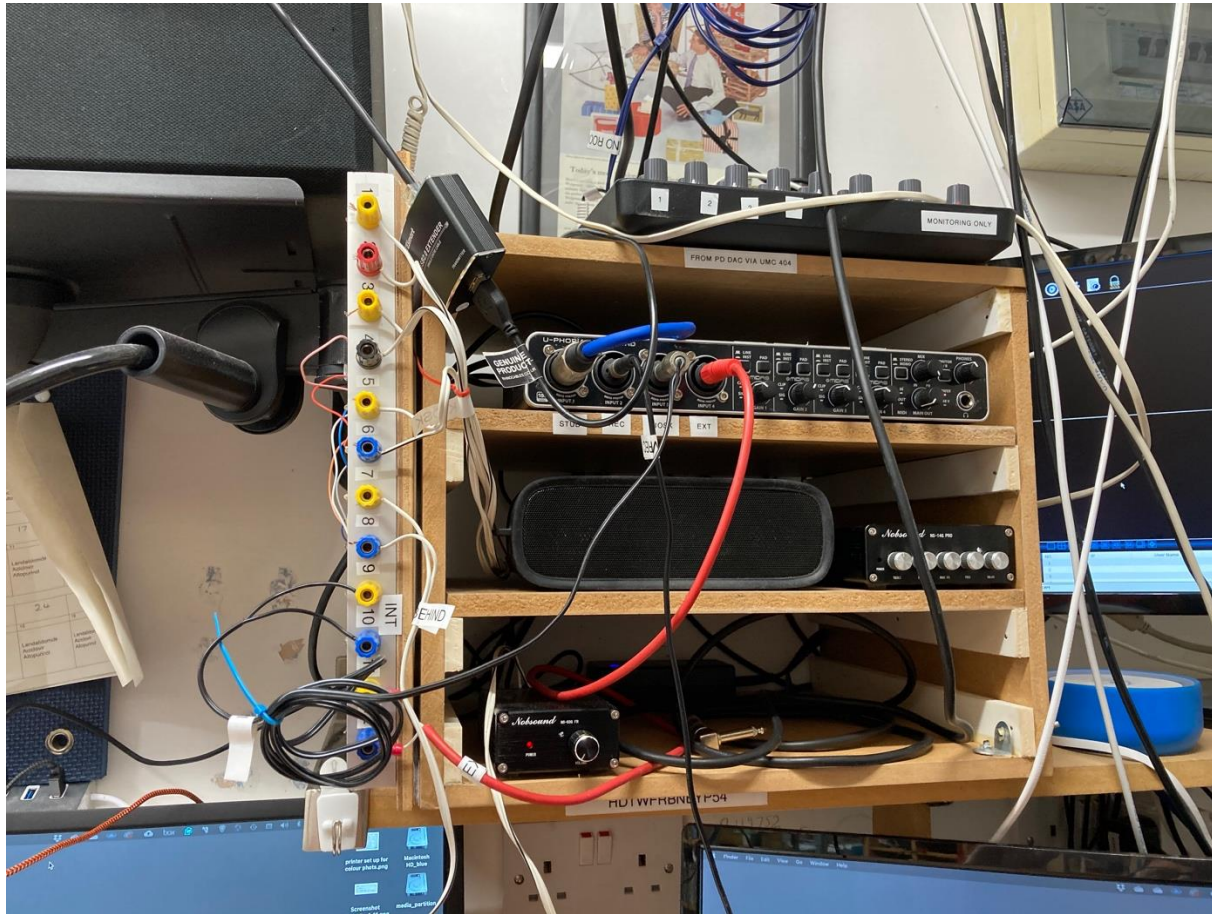


This is a general view showing

- A touchtone phone replicating the functionality of the rotary phone (just for convenience)
- A vintage switchboard that facilitates connections to the phone box as well as other phones in the kitchen and dining room
- A Bakelite local phone replicating the functionality of the phone in the kiosk
- A vintage telephone amplifier
- The studio microphone

Interaction between the operator and the user can all be done from this position

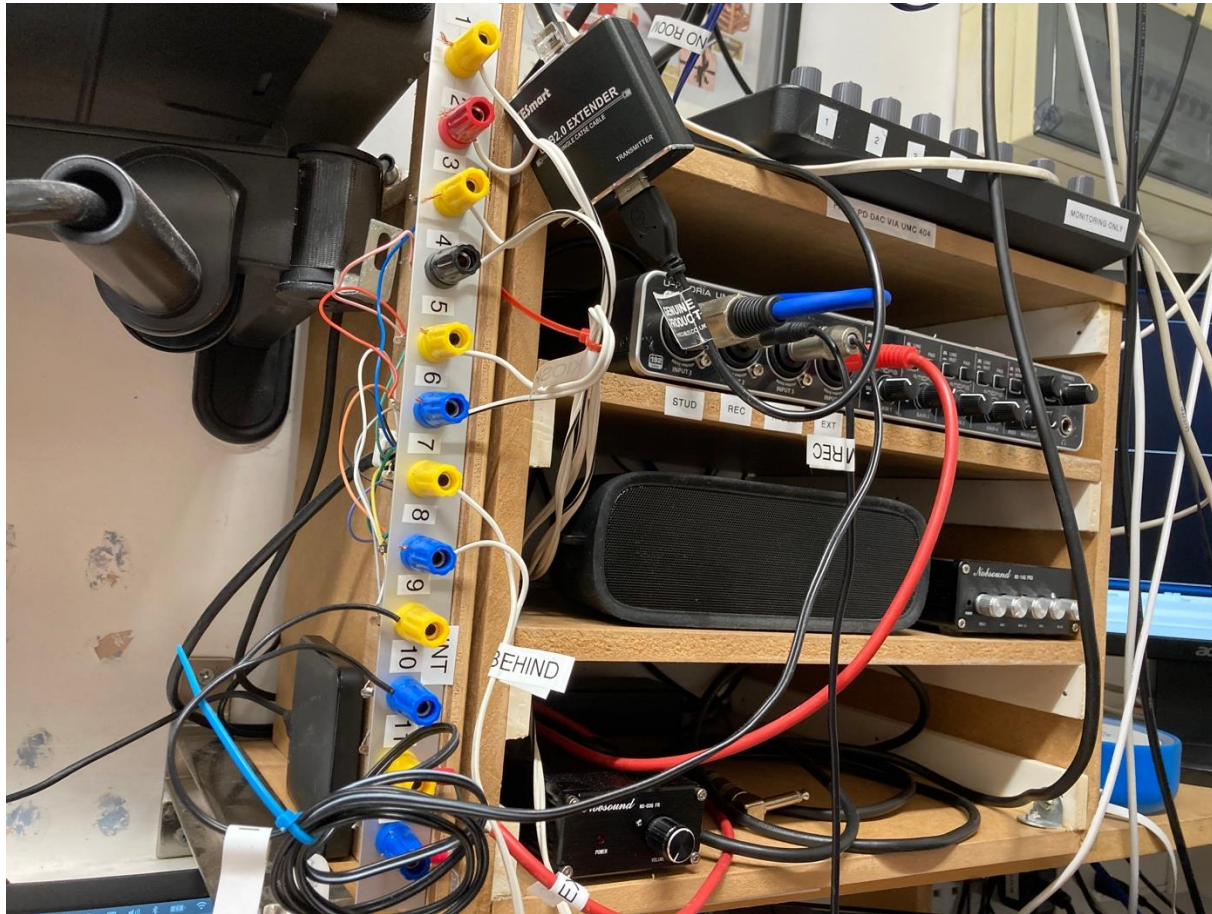
The stack of audio components (not on schematic)



This shows a stack of audio components

1. On the top is the monitoring mixer
2. Below that is the main audio interface with 4 input channels and 4 output channels
3. Then an active speaker for monitoring
4. With a stereo hi-fi amplifier connected to 2 speakers in the kiosk and the sub
5. On the bottom is a mono amplifier connected to a third speaker

Audio patch board (not on schematic)



The audio patch board has 12 separate channels matching the 12 channels in the kiosk. Audio to and from the kiosk is routed from here.

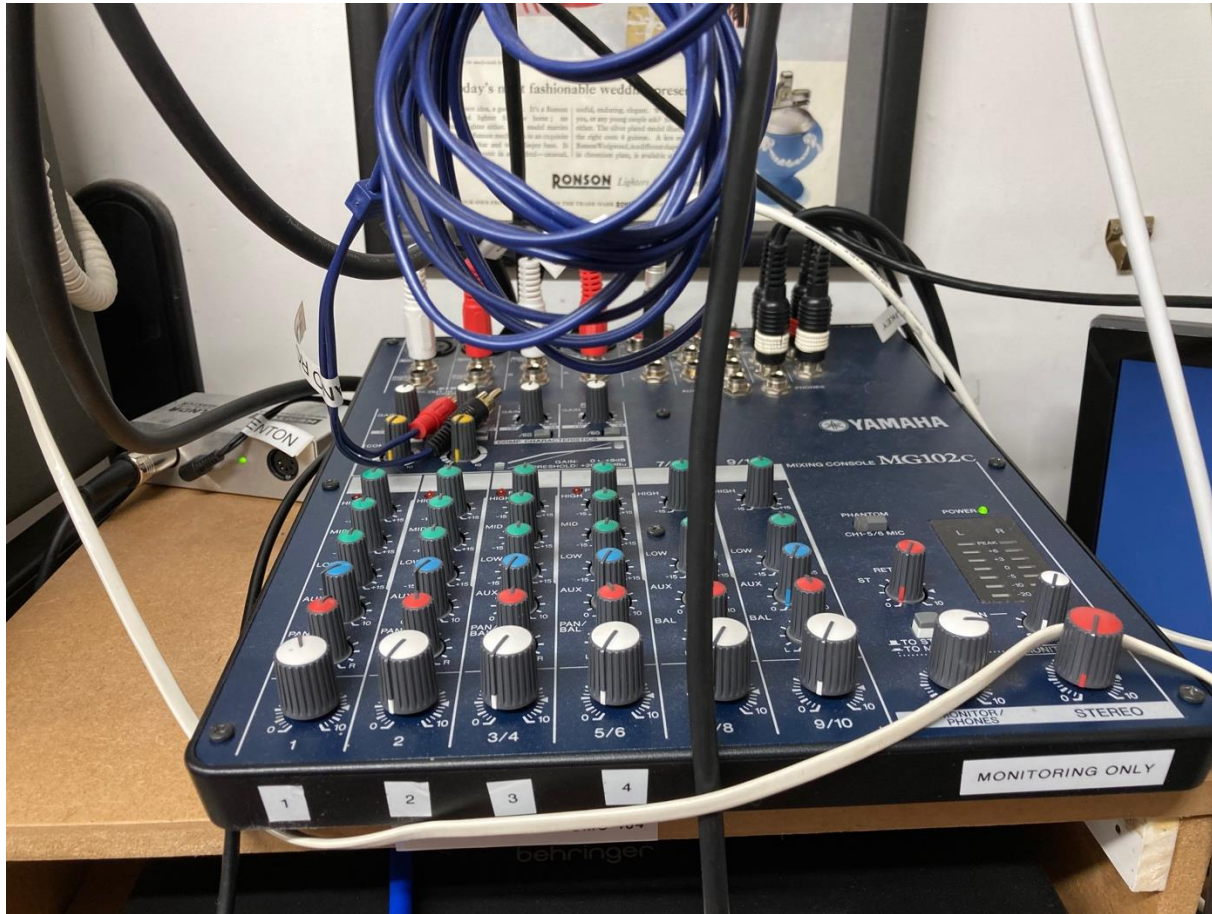
18 - U-Phoria UMC 404 HD – Audio Interface & 48 - Active speaker



A close up of the Behringer audio interface showing inputs from the studio mic, the tap from the handset, the kiosk mic and the external mic. Outputs are at the back of the device and are routed to the amplifiers and to the monitoring mixer by Pd .

Shown below the UMC 404 is the active speaker

33 - Mixer (for monitoring only)



This facilitates a monitor mix as well as routing to additional speakers in the kitchen and dining room. It may be possible and preferable to do away with stage in due course as all monitoring can be done directly from the UMC 404. The kitchen and dining room speakers could be dropped.

8 - Midi line driver receiver



This is the powered end of the midi line driver allowing midi to be transmitted by CAT 5.

3 – USB to CAT 5 transmitter



This plugs into the PC USB ports to provide serial data to the Arduino IDE

13 - Stereo Hi-Fi amplifier



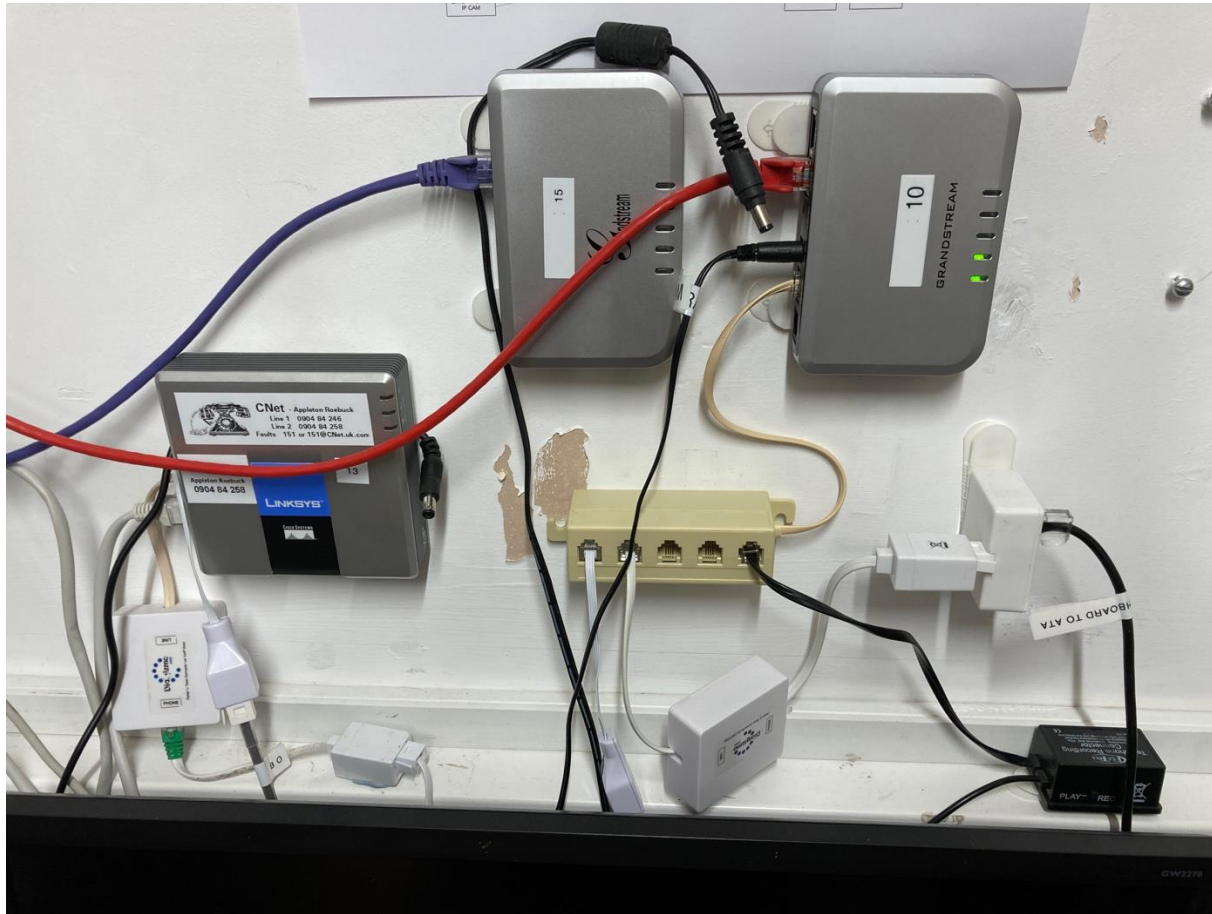
This stereo amp with subwoofer output is actually being used as a pair of mono channels which can be addressed separately using the software. 3 mono amps would probably have been a better solution rather than one mono and one stereo

26 - Mono amplifier



A mono amplifier feeding the 3rd speaker in the kiosk

30 - ATA's, 29 - Pulse to tone, 15 - Line tap



This shows the Grandstream Analogue Terminal Adapters that allow the old phones to connect to the digital system that supports the asterisk software. There are several spares and duplicates in this image. Also shown bottom R is the telephone tap that captures the audio from the telephone receiver and passes it through to the sound distribution system. (This is a compromise solution as I was unable to figure out how to do this using Asterisk.) Also shown is a Dialgizmo pulse to tone converter

22- Switchboard



The switch settings on the switchboard are correct for enabling the kiosk phone. Other phones can also be enabled by raising the switches on the top row – eg Kitchen or Local

46 - Midi control surface



This USB midi control surface is connected directly to the Shuttle PC running Ubuntu. It is used for triggering interjections according to the numbered buttons. The sliders control volume levels in the Pure Data software

23 - Kitchen phone



This phone duplicates the functionality of the kiosk phone. It has no great purpose other than convenience for testing

41 - Kitchen speaker



Speaker replicates the functionality of all the speakers in the Kiosk

16 - Dining room phone



This phone duplicates the functionality of the kiosk phone. It has no great purpose other than convenience for testing

32 -Dining room speaker



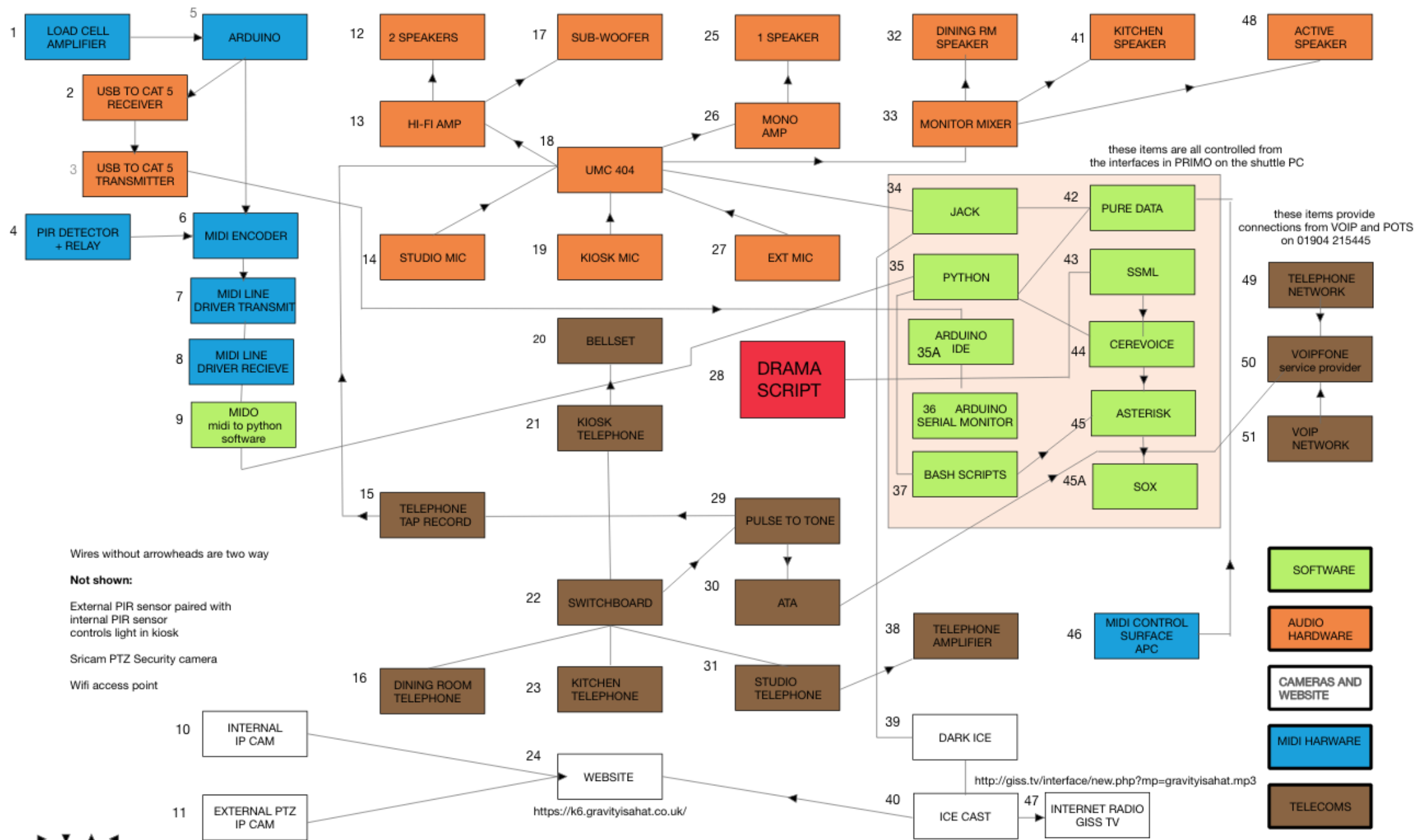
Speaker replicates the functionality of all the speakers in the Kiosk.

The telephone box that talks a bit like me

By Christopher Newell

The Critical Software

System Schematic



Start up sequence from studio PC

Open Jack and start Jack using the Jack icon on the Ubuntu sidebar
Then type the following commands in red from terminal

- To show the Asterisk console - chris@primo:~\$ **asterisk -rvvvvv**
- Start Pure Data - chris@primo:~\$ **pd -verbose -stderr**
- Start a Darkice stream locally - chris@primo:~\$ **darkice -c /home/chris/Dropbox/K6_primo/darkice/darkice3.cfg**
- Start a Darkice stream for GISS TV - chris@primo:~\$ **darkice -c /home/chris/Dropbox/K6_primo/darkice/darkice4.cfg**

darkice4.cfg starts a stream here
<http://giss.tv/interface/new.php?mp=gravityisahat.mp3>

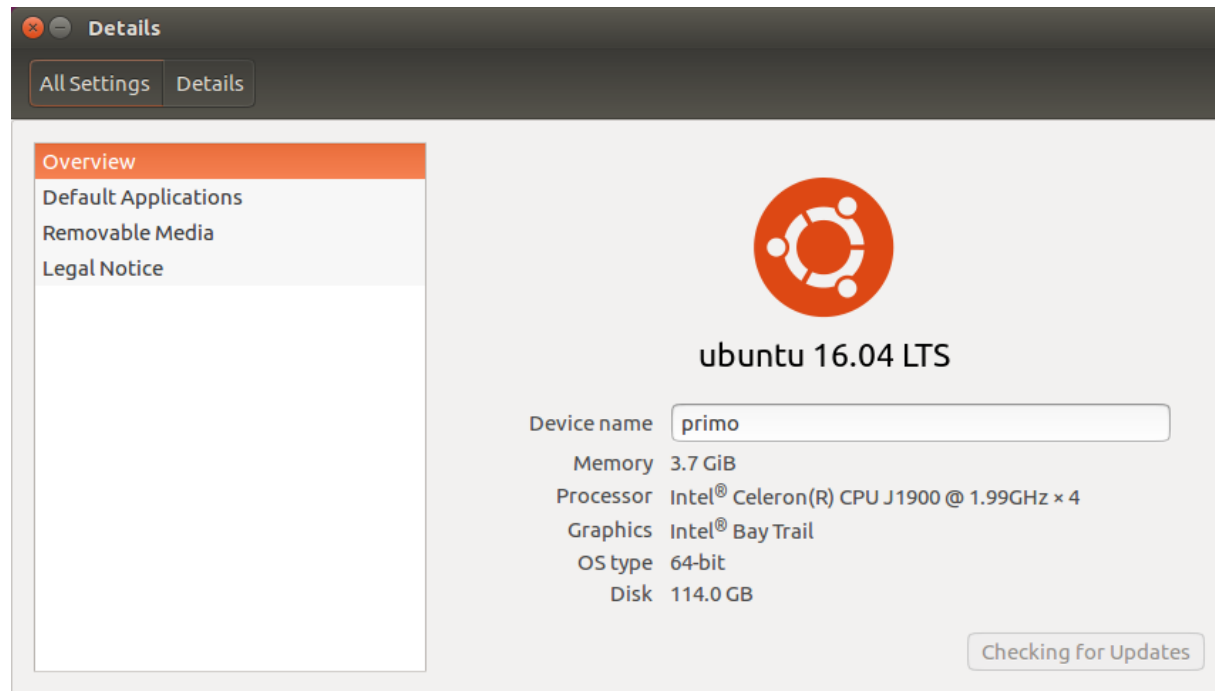
User Operations

1. User is encouraged to dial zero for instructions
2. The system will calculate the number of available extensions and offer the user the range of available numbers to dial – the full range will eventually be 101 - 199
3. Misdials result in an error message
4. User can leave messages by dialing 200 for instructions then dialing 20n (where n is the next available extension number 1 – 9). To listen to their message they can dial 40n (where n is the same extension number 1 -9)

The system explained

Title numbers refer to numbers on schematic

Ubuntu



The software is installed on a PC running Ubuntu 16. The memory and processor requirement is modest

<https://ubuntu.com/download/desktop>

Upgrading to a more recent version could have some detrimental effects on functionality.

The installation

Details of all the requirements and the original install process of key software is here

<https://k6.gravityisahat.co.uk/2020/12/30/installing-everything-afresh/>

Installation should be on a new installation of Ubuntu 16 LTS

The documentation is in the form of instructions derived from the internet and notes taken at the time of installation including identifying some problem areas. The installation is a prolonged and somewhat frustrating process.

The installation

Software required includes

- (optional) Synaptic – package management - <https://help.ubuntu.com/community/SynapticHowto>
- Dropbox – cloud storage – https://www.dropbox.com/en_GB/install-linux most critical files and packages are stored here
- 45 - Asterisk and all dependencies – a very big and complicated telecommunication program of which I only use a tiny part <https://www.asterisk.org/>
- 35 – Python (for compatibility with PD install version 2.7) <https://www.python.org/downloads/release/python-270/> It can be installed alongside more up to date releases
- 34 - Jack – audio server software - <https://jackaudio.org/>
- 42 - Pure Data (and extras) - <https://puredata.info/>
- 40 - Icecast - <https://icecast.org/>
- 39 - Darkice - <http://www.darkice.org/>
- 44 - Cerevoice Chris – made by Cereproc <https://www.cereproc.com/en>
- 45A - Sox - <http://sox.sourceforge.net/>
- 9 - Mido and rtmidi <https://mido.readthedocs.io/en/latest/installing.html>

A fair amount of tinkering is required modifying permissions etc. documented here

<https://k6.gravityisahat.co.uk/2020/12/30/installing-everything-afresh/>

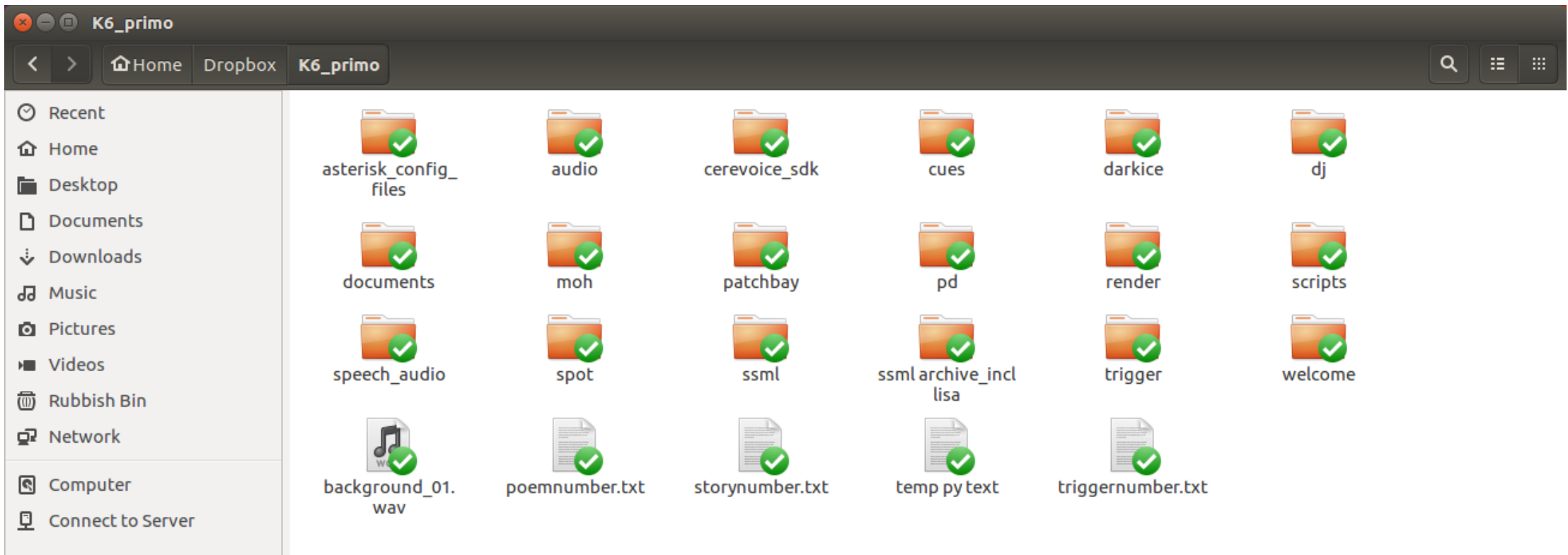
Drama scripts

- The drama scripts are written in Synthetic Speech Mark-up Language (SSML)
- The specification is here <https://www.w3.org/TR/speech-synthesis11/>

The file system on Dropbox

linux path = /home/chris/Dropbox/K6_primo

Note: the arduino folder containing the latest sketches is also here



The file system on Dropbox

Most of the important files other than Asterisk system and configuration files are located in Dropbox

1. **audio** – wav files that play in the kiosk includes a sub folder /stories that contains user contributed messages organized in folders 201/209 – these folders must be cleared from time to time
 2. **cerevoice_sdk** – all the Cerevoice files
 3. **cues** – a file generated by Cerevoice that sequences audio files in Pure Data
 4. **darkice**- Configuration files for Darkice/Icecast web streaming
 5. **dj** – audio interjections triggered by the midi control surface
 6. **patchbay** – configuration files for Jack
 7. **pd** – Pure Data files (the main interface)
 8. **render** – storage for the audio rendering process for Cerevoice
 9. **scripts** – Python and bash scripts with various functions
- **speech_audio** – audio rendered by Cerevoice
 - **spot** – audio files inserted into the Cerevoice speech stream
 - **ssml** – all the SSML files passed to Cerevoice
 - **trigger** – audio files selected randomly when users approach the kiosk
 - Poemnumber, storynumber, triggernumber are files generated by various scripts
 - Other folders may be ignored

45- The Asterisk file system

After a full install of Asterisk only a few files are customized they are:

Linux file references

`/etc/asterisk/extensions.conf`

`/etc/asterisk/sip.conf`

`/etc/asterisk/musiconhold.conf`

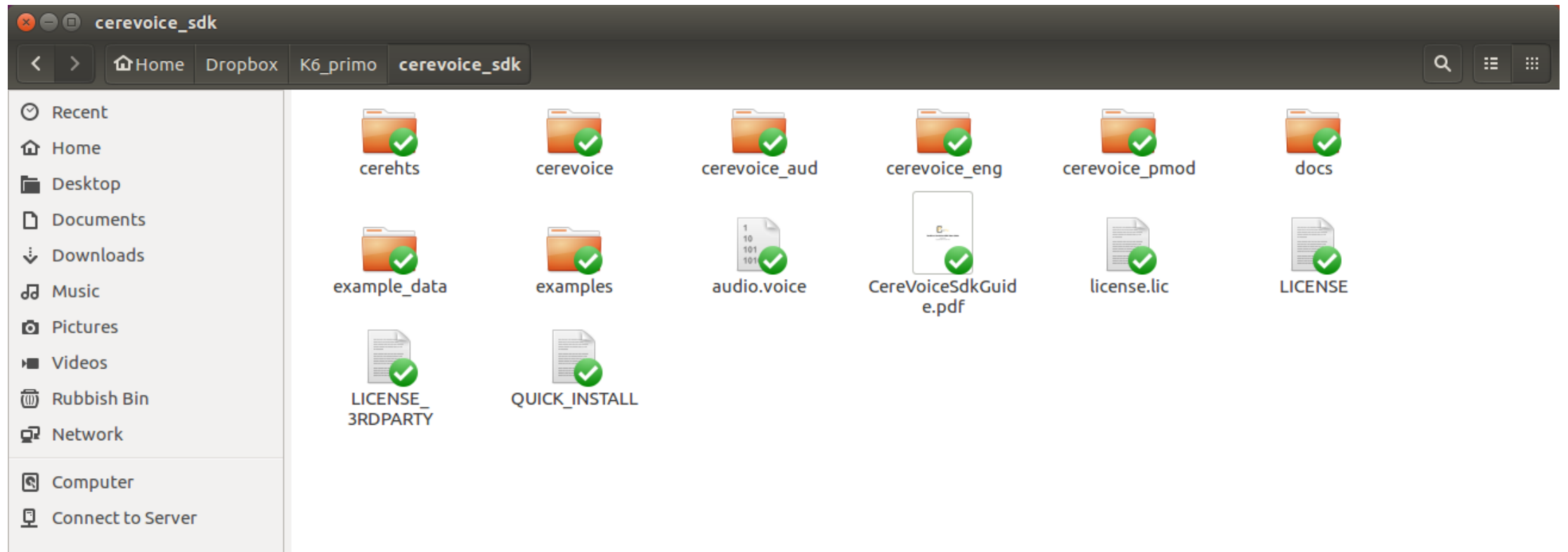
Copies of these may be found on Dropbox under
`asterisk_config_files`

45A - Sox

Sox is required by Asterisk to convert the wav files generated by Cerevoice into .SLN files that can be played using the Asterisk playback command

It is a command line tool accessible from the terminal in Ubuntu

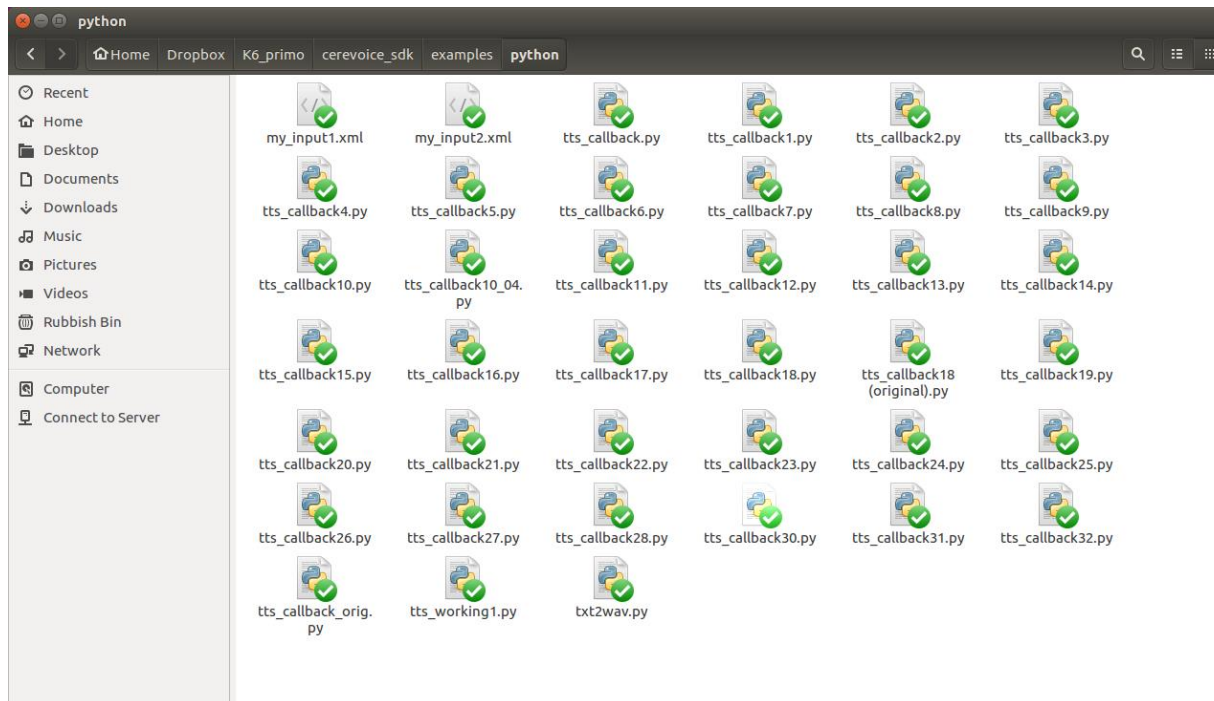
44 - Cerevoice – folder contents



44 - Cerevoice

The Cerevoice TTS system is located in Dropbox. It is bespoke with a specific license tied to my TTS voice

The key component is `tts_callback` situated in `examples/python` – this files has been modified by me to facilitate the use of SSML markers to trigger sequences of audio files in PD using the PD qlist object <http://pd-tutorial.com/english/ch04s02.html>



34 - Jack



Jack Audio – connect all the various audio hardware and software components.

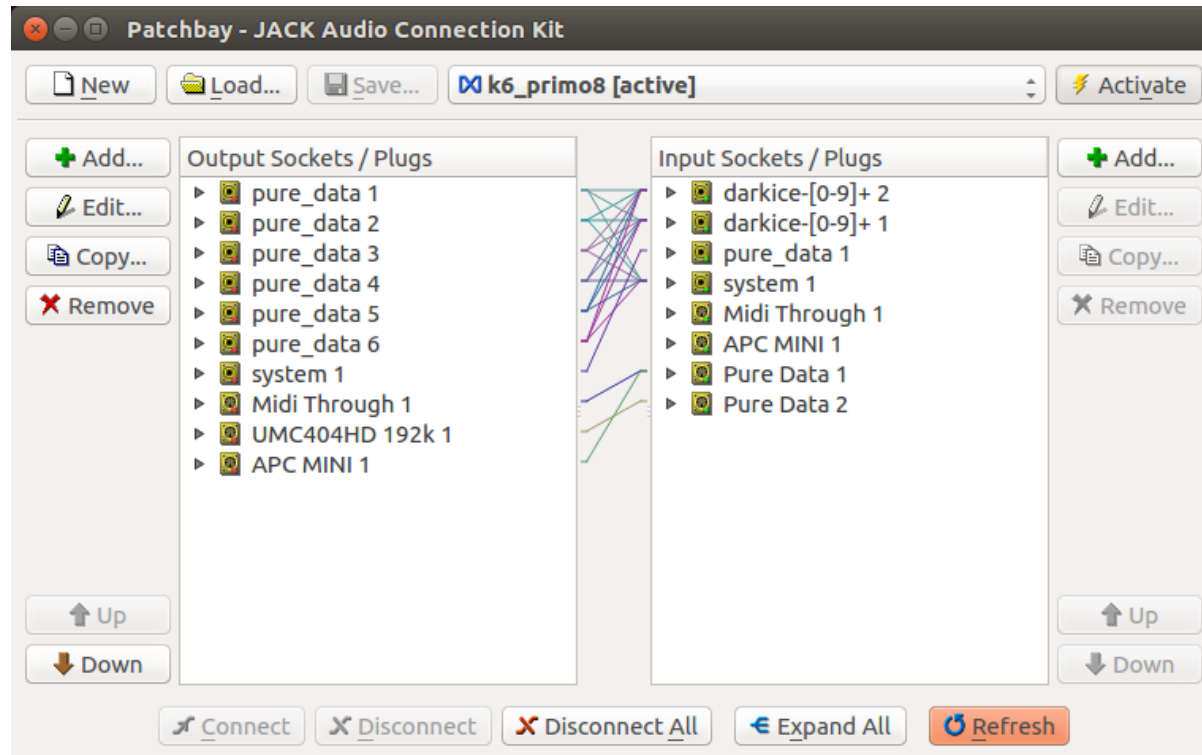
<https://jackaudio.org/>

In theory there are ways in which Jack and Asterisk environment can be connected within the Asterisk however I was unable to make it work.

Here is the link to app_jack

<https://www.voip-info.org/asterisk-cmd-jack/>

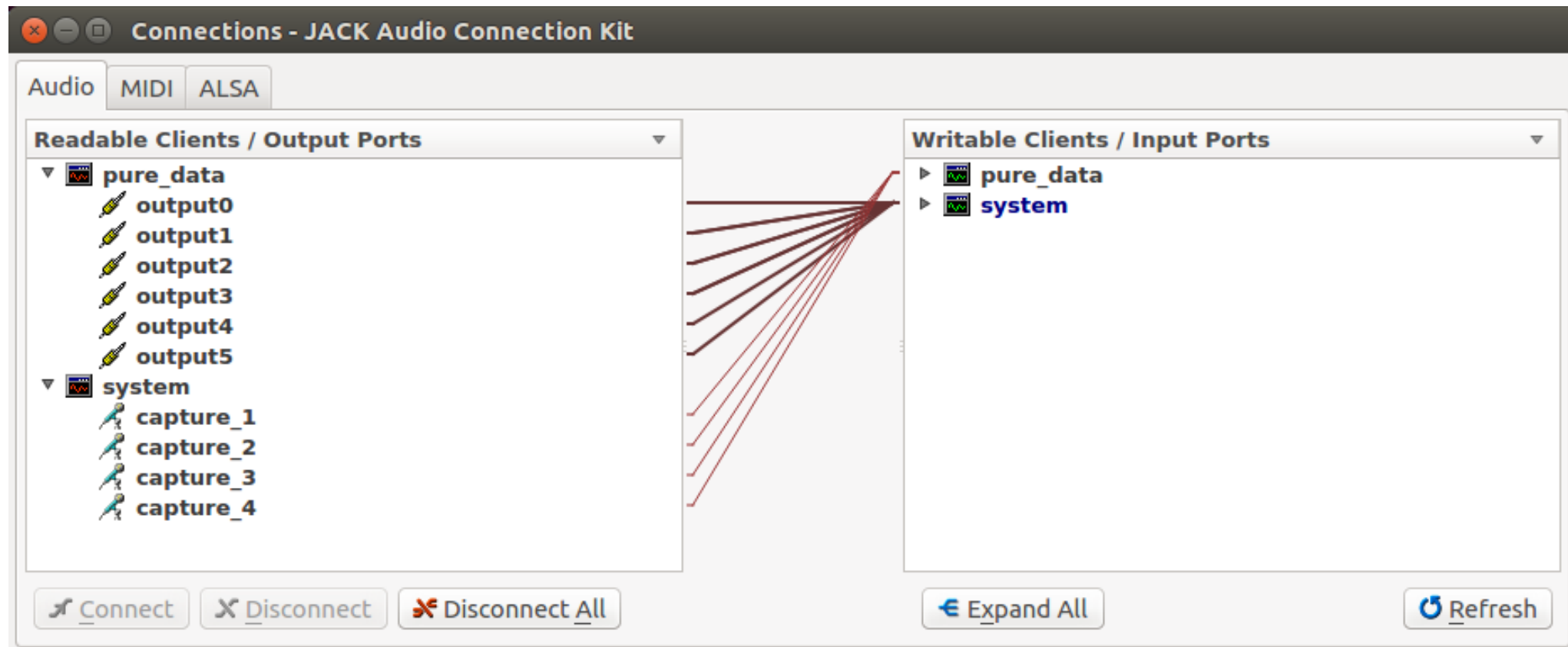
34 - Jack - patchbay



The Jack Patchbay shows the preset connections in graphical form. These can be loaded in advance or set as the default settings on start up.

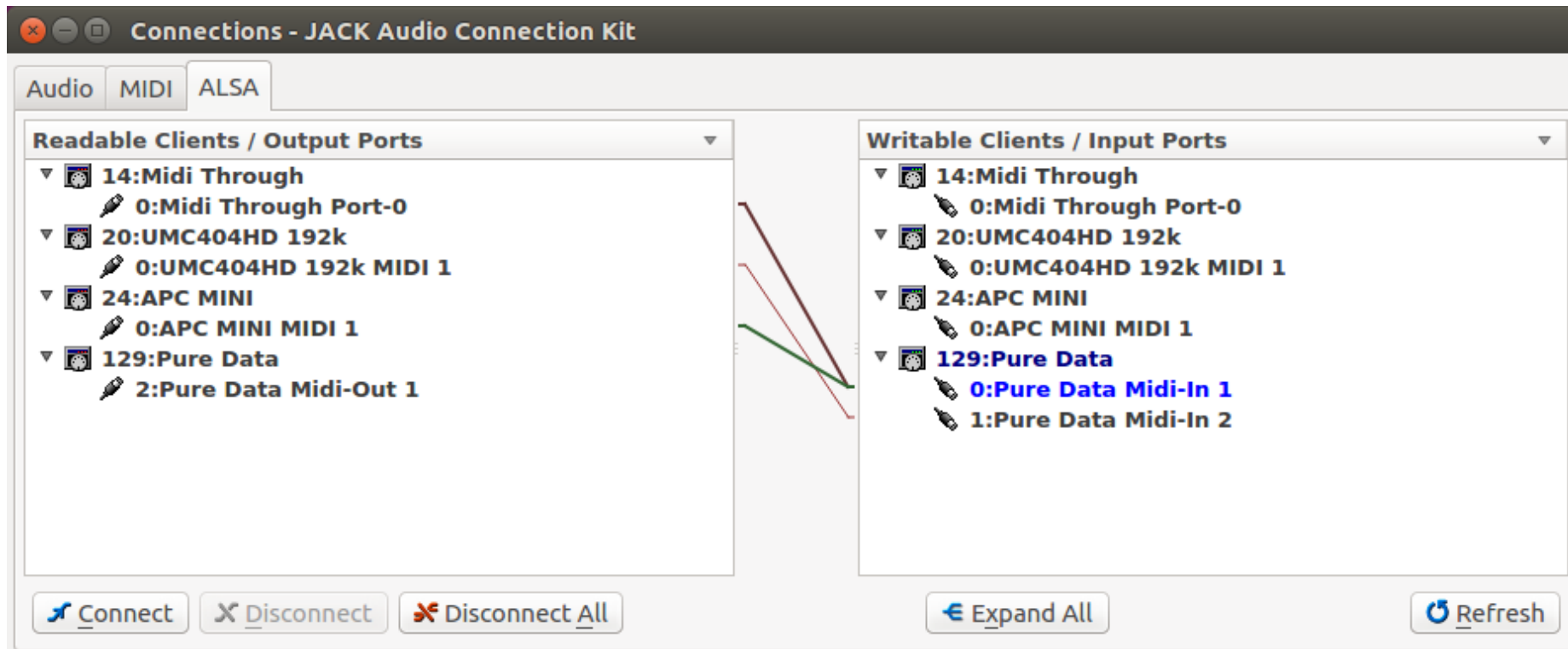
34 - Jack connect (Audio)

Jack connect shows the live connections in graphical form. More connections including MIDI are shown in the ALSA tab. The MIDI tab connections are not utilised



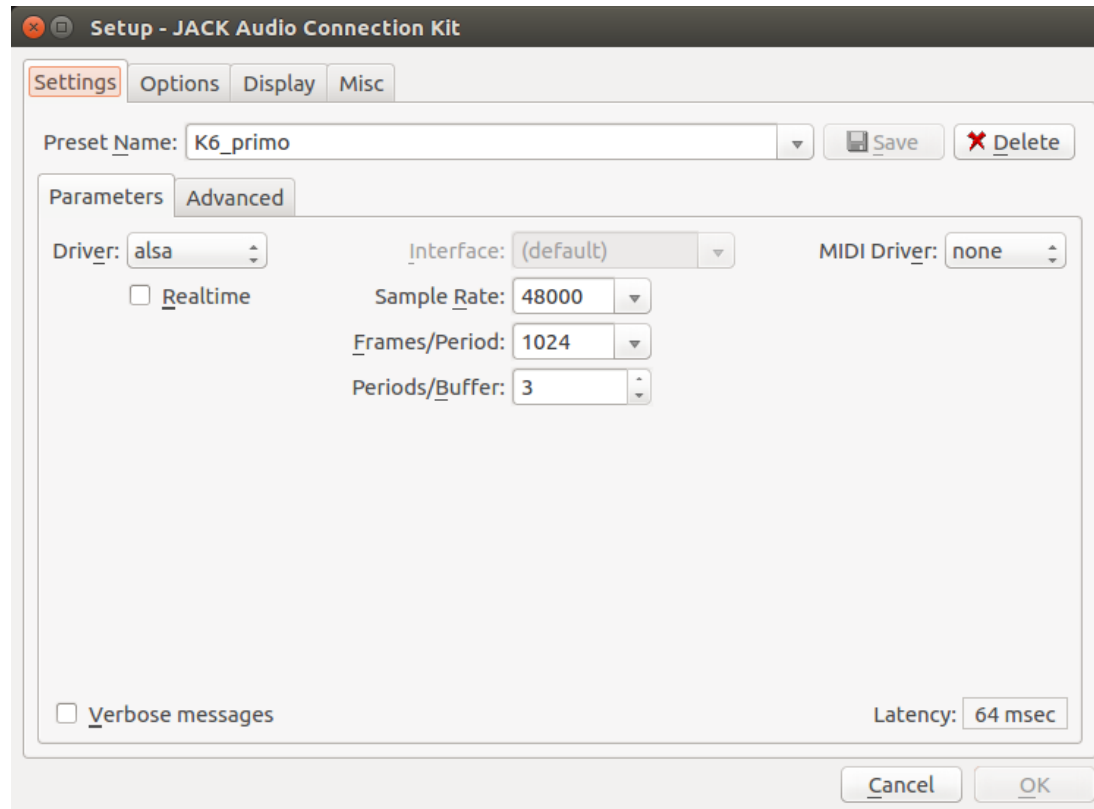
34 - Jack connect (Midi)

Jack connect shows the live connections in graphical form. More connections including MIDI are shown in the ALSA tab. The MIDI tab connections are not utilised



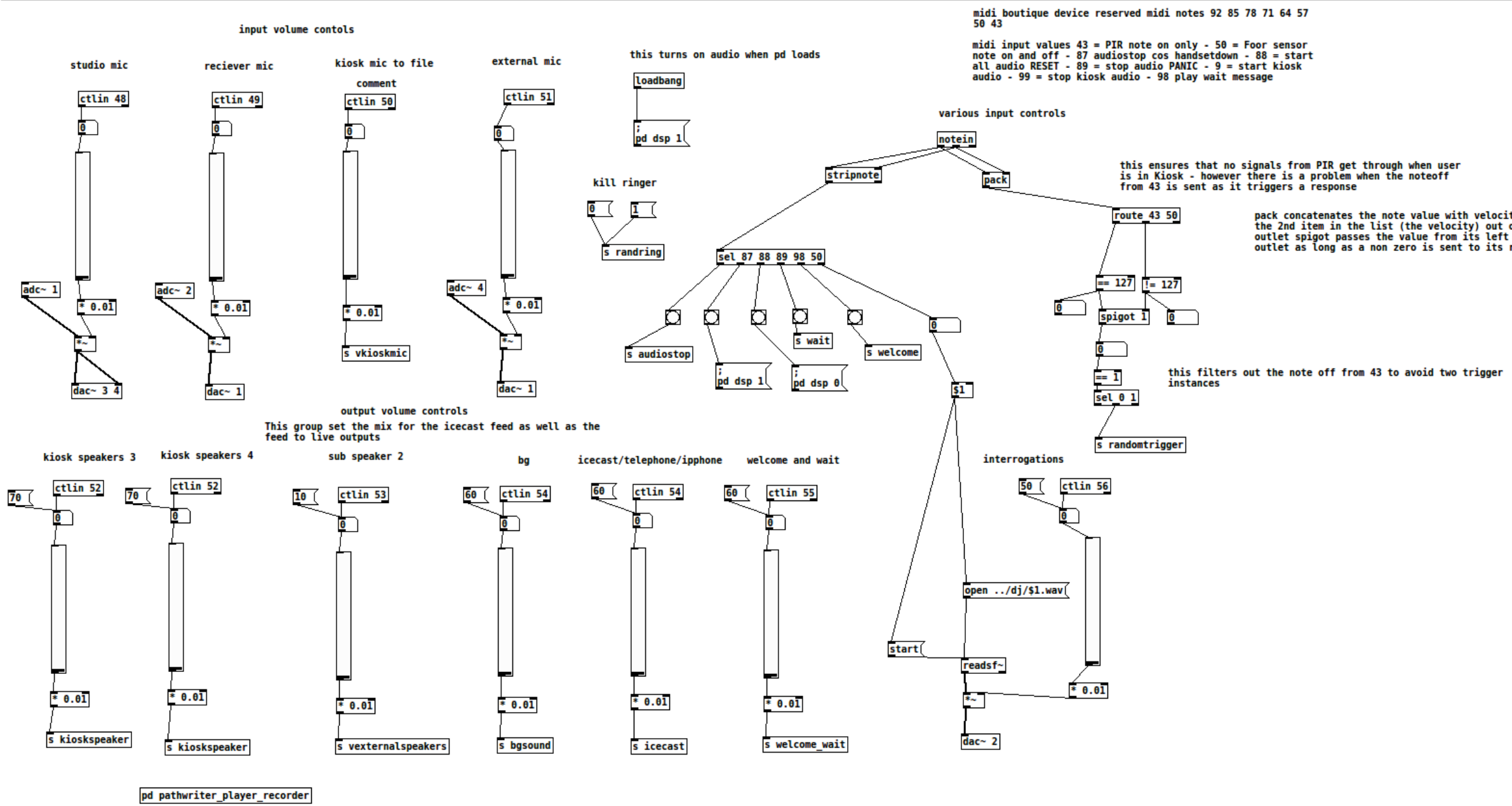
34 - Jack setup

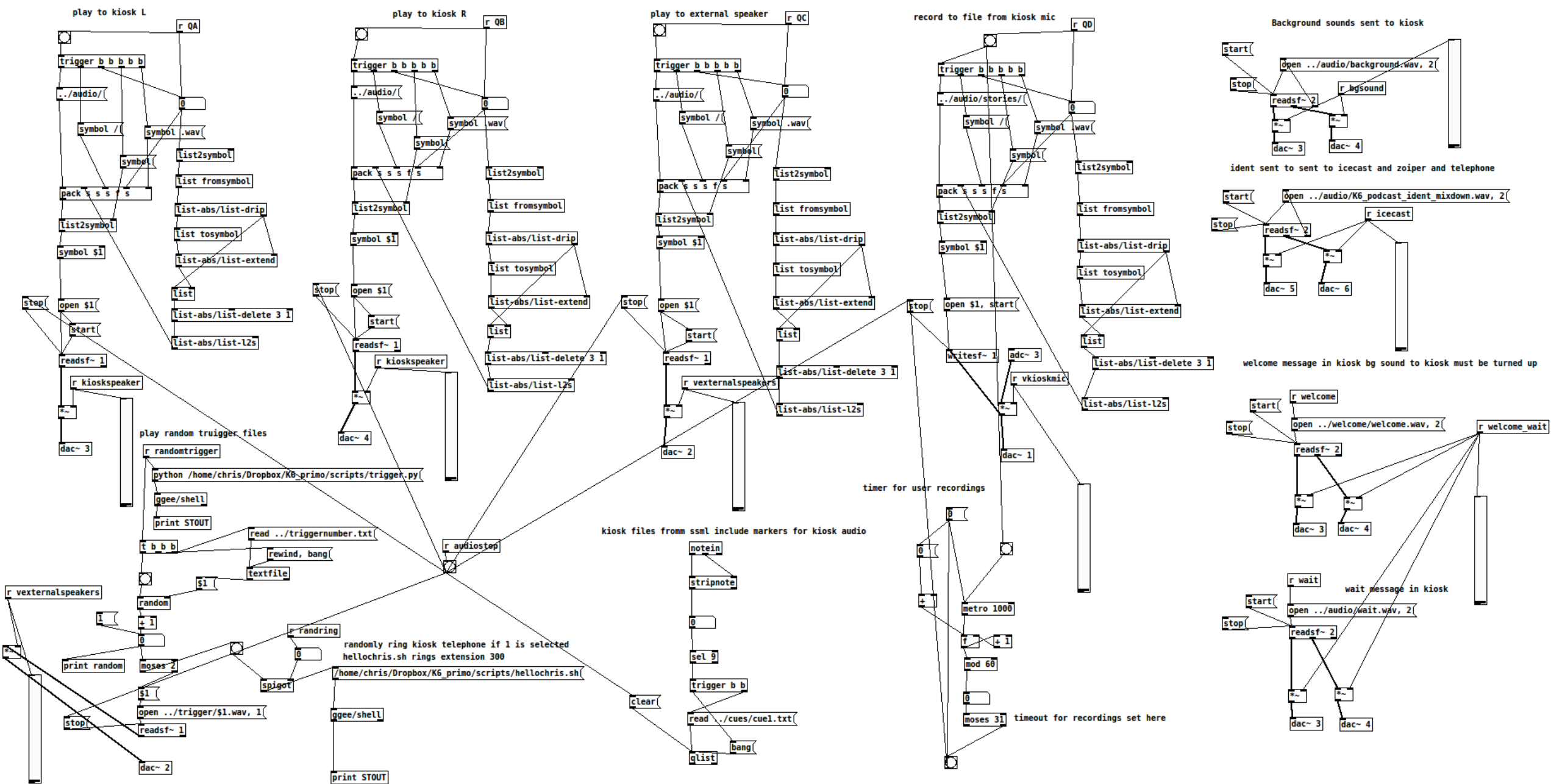
Jack setup shows the audio setup. Most of the default options are unmodified.



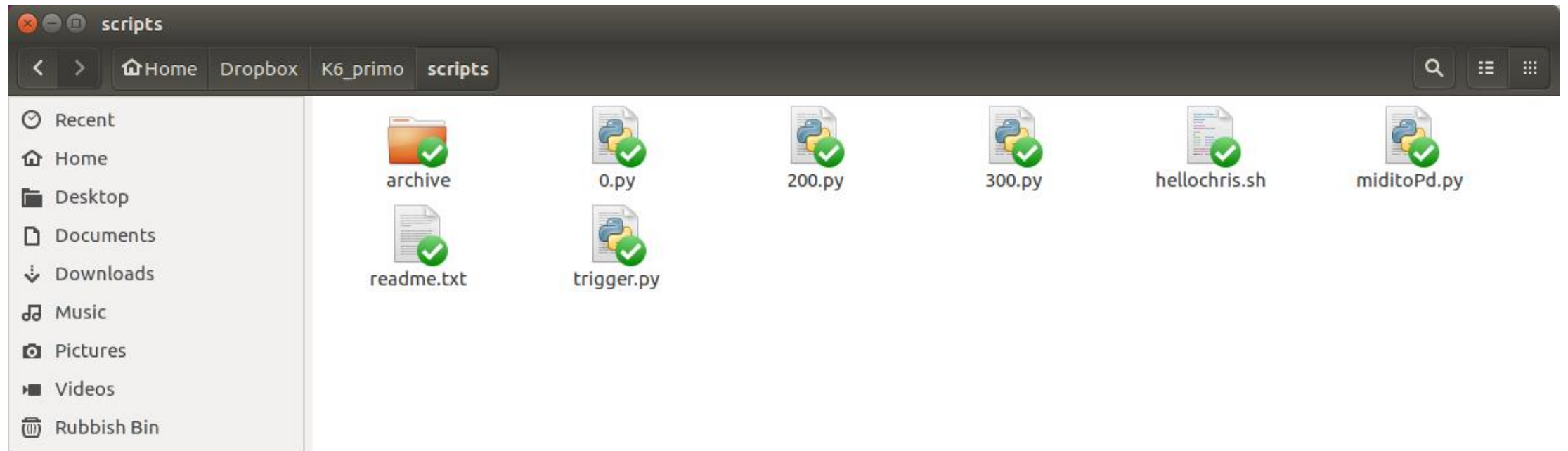
42 - Pure Data

- The Pure Data software provides the interaction between the midi devices and audio playback as well as a master control interface. It takes input from midi triggers generated by Asterisk, Cerevoice Chris, Midi sensors and the Midi control surface.
- There are two interfaces
 - interface_rev30.pd
 - pathwriter_player_recorder (launched from interface_rev30.pd)





35 & 37 Python and BashScripts



37– 35 Scripts

- There are several simple scripts assigned to extensions
 - 0.py – operator script when zero is dialed
 - 200.py – when 200 is dialed script to trigger recording of user stories
 - hellochris.sh – when PIR triggers kiosk phone (300) to ring
 - 300.py – creates an ssml file for Cerevoice Chris when user answers the kiosk phone
 - miditopd.py - sends a midi note value to Pd from Asterisk
 - Trigger.py - counts the number of trigger files available so that Pd can select one randomly

30 - Grandstream – ATA interface

The ATA web interface facilitates all the settings required to connect the analogue phones to Asterisk. Password and USER ID settings are under FXS PORT 1 Most other settings are default.

Grandstream Device Configuration

STATUS

BASIC SETTINGS

ADVANCED SETTINGS

FXS PORT1

FXS PORT2

MAC Address:

WAN-- 00:0B:82:93:E8:24 LAN-- 00:0B:82:93:E8:23 (Device MAC)

WAN IP Address:

192.168.1.10

Product Model:

HT-502 V2.0A

Software Version:

Program -- 1.0.14.1 Bootloader -- 1.0.0.18 Core -- 1.0.14.1 Base -- 1.0.14.1
Extra -- 1.0.14.1 CPE -- 1.0.1.48

System Up Time:

12:13:31 up 37 days

PPPoE Link Up:

Disabled

NAT:

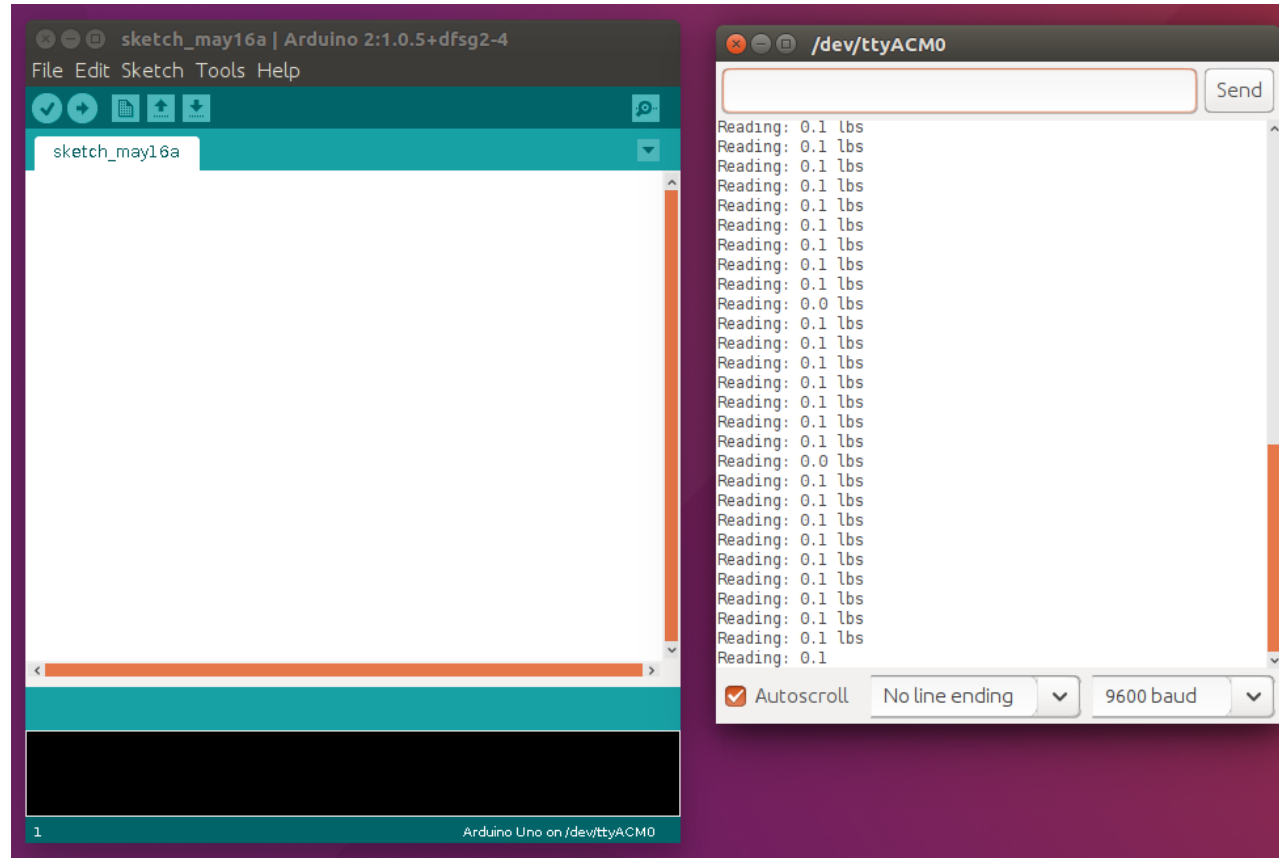
Unknown NAT

Port Status:

Port	Hook	Registration	DND	Forward	Busy Forward	Delayed Forward
FXS 1	On Hook	Registered	No			
FXS 2	On Hook	Not Registered	No			

All Rights Reserved Grandstream Networks, Inc. 2006-2015

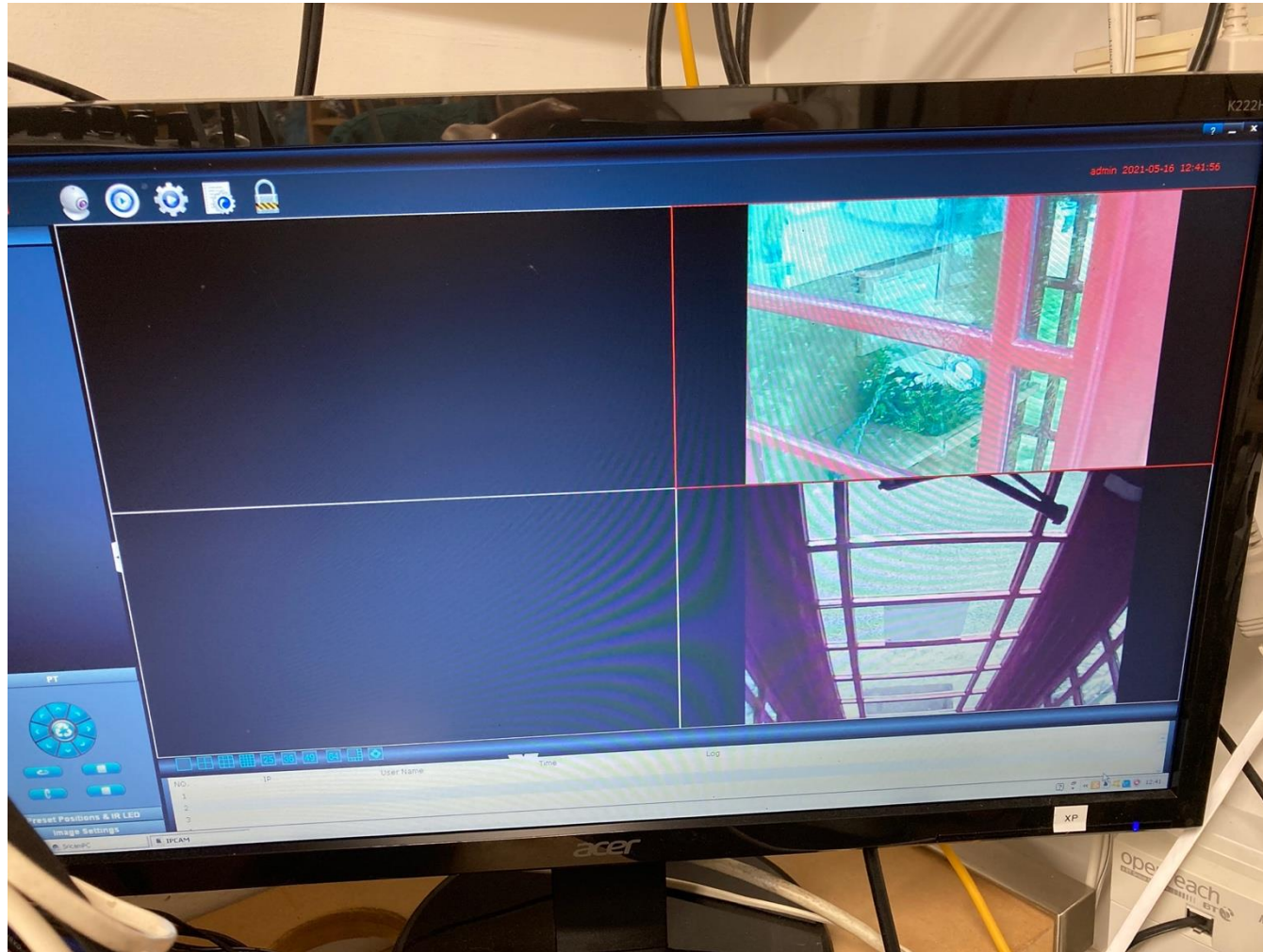
5, 35A, 36 - Arduino



The Arduino IDE facilitates the upload of 'sketches' to the Arduino Uno. It is also possible to monitor the serial port to show the read out from the the load amplifier system under the kiosk floor.

The connection is unreliable but unplugging and re-plugging the USB extender will normally fix it.

10 & 11 IP Camera - Foscam



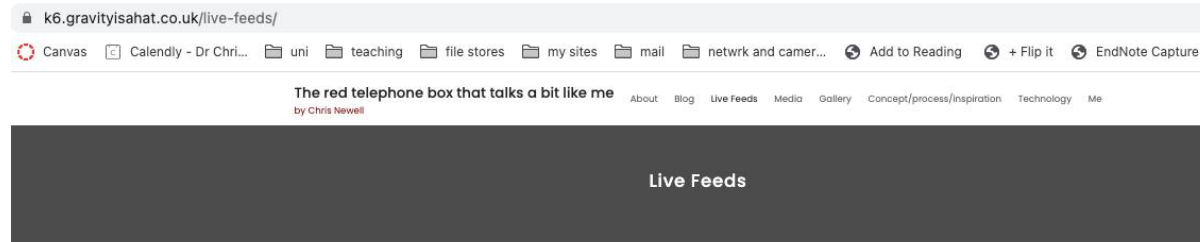
The Foscam IP cameras can be controlled by bespoke software installed on the Windows XP machine, by apps or by the web interface

IP Camera - Sricam



The Sricam IP cameras can be controlled by bespoke software installed on the Windows XP machine, by apps but do not have a web interface

24 - Website



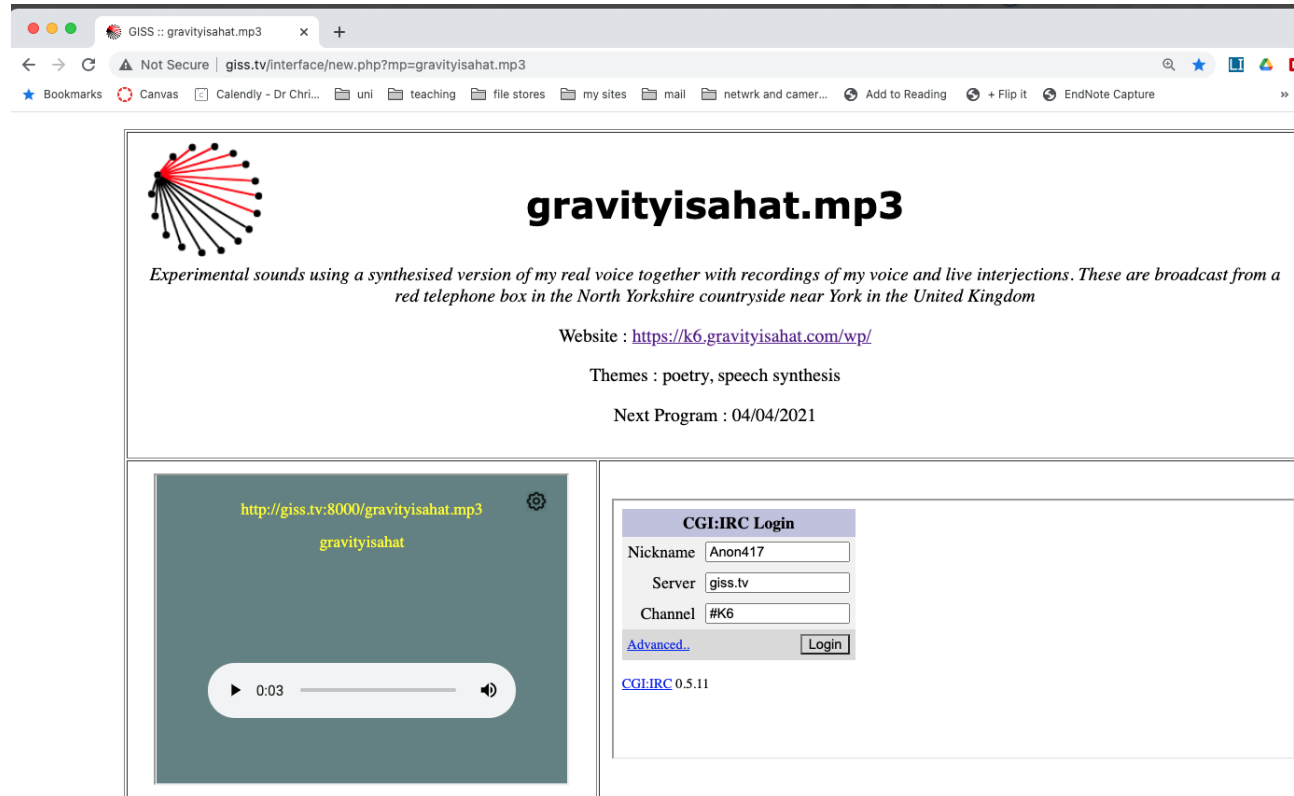
The website is hosted by Media Marmot at <https://k6.gravityisahat.co.uk/>

Live Feeds

Live feed on Easter Sunday 8:00 pm - RESURRECTION - (DURATION 10 MINS) - YOU MISSED IT SO HERE IS A RECORDING



47 – GISS TV live web radio



The screenshot shows a web browser window with the address bar displaying `giss.tv/interface/new.php?mp=gravityisahat.mp3`. The page title is "gravityisahat.mp3". The main content area features a logo of a red and black network diagram, a description of the experimental sounds, and a list of themes. Below this is a section for the "Next Program" and a "CGI:IRC Login" form. The login form includes fields for Nickname, Server, and Channel, along with a "Login" button and a "CGI:IRC 0.5.11" version indicator.

gravityisahat.mp3

Experimental sounds using a synthesised version of my real voice together with recordings of my voice and live interjections. These are broadcast from a red telephone box in the North Yorkshire countryside near York in the United Kingdom

Website : <https://k6.gravityisahat.com/wp/>

Themes : poetry, speech synthesis

Next Program : 04/04/2021

<http://giss.tv:8000/gravityisahat.mp3>

gravityisahat

0:03

CGI:IRC Login

Nickname

Server

Channel

[Advanced..](#)

[CGI:IRC](#) 0.5.11

The GISS TV URL for web radio broadcasts is

<http://giss.tv/interface/new.php?mp=gravityisahat.mp3>

The Red Telephone Box That Talks A Bit Like Me

by Chris Newell

Posts published on September 16, 2025, from k6.gravityisahat.co.uk. Printed on September 16, 2025 using [Print My Blog](#)

Bums On Seats

June 5, 2019

Categories: Production



Users that I need to figure out how apply the theatrical adage of keeping 'bums on seats.' A surreal, alienating piece of audio experimentation stuck in a country lane in North Yorkshire does not keep people entertained long enough to justify the notion of a public theatre and while I have no unalterable desire to serve a public, I also don't have a desire to bore them rigid, show them how clever I am or simply frustrate them. Thus, the content of the material spoken, the script if you like, has gone through many, many rethinks and is still being rethought as I write this.

People Under 30 Cannot Dial

June 5, 2019

Categories: Production



Interaction with the artwork has proved annoyingly problematic. I did not expect users to find a telephone dial difficult to use. I should have predicted this given the technology is now 30 years out of date. Many younger people have never 'dialed' in their lives. I should have taken account of the fact that when it was invented the British Post Office precursor of General PO produced short information films showing people where to stick their finger in the dial mechanism. In my box the knock-on effect of user error created a perfect storm of system failures. The technology of the 1930's, the user and software of 2018 struggled to come to terms with differing expectations of system speed and responsiveness causing much bad-tempered slamming down of handsets and walking away moaning about having heard nothing.

My predicament is that I want the telephone box to continue to remain a bit of an enigma or a mystery to those that encounter it. If I were to 'prop it up' it with copious operating instructions some of the mystery would be undermined. It would become an arcade game or a gadget. Something to be solved or competed against. I am hoping to provide the somewhat debased concept of 'an experience', as something the user can discover for themselves. Obviously this throws up issues of usability on the assumption that the less information the user is given, the more errors they are likely to make and the less satisfactory the experience will be. Conversely too much information overwhelms the user with the same result. The unwillingness to wait for things to happen, analogue electro mechanical technology being so much slower than digital, was initially a problem, requiring the judicious use of audible messaging such as 'please hold the line' or wait '3 seconds.' That said, even when they are given instructions users tend to ignore them, so I have reconciled myself to the inevitable slamming down of handsets. The time in rehearsal has helped solve some of these problems but by no means all.

Bodged Technology

June 5, 2019

Categories: Production



The technical solutions came about as solutions to problems that occurred in the build rather than as part of a plan. As no one, to my knowledge, has attempted anything similar some bodes and crude cutting and pasting of code has occurred. In my defence connecting a telephone from the 1930's with an exchange from the 1950's to digital devices from today is likely to require some original and, far from ideal work-arounds.

Inspiration

June 5, 2019

Categories: Production



The telephone box, let's call it 'Chris', is part vocal cenotaph, part gramophone, part ventriloquist and part sound installation. Just occasionally it is a telephone and sometimes it pretends to be an oracle. It merges four ideas. The test devised by Alan Turing to validate whether a machine can successfully impersonate a human, known as the Turing Test (Turing, 1950). A method used in Human Computer Interaction (HCI) research in which a machine interface is controlled by unseen human operatives, known as The Wizard of Oz method (Kelley, 2018), the unrealized machine proposed by Thomas Edison for communication with the dead in his paper 'The Realms Beyond' (Edison, 2015) and a fascination and fear I share with many others for ventriloquism (Connor, 2000).

The motivation for the installation erupted when my cancer diagnosis in 2014 seemed drastic and I felt the need to leave some sort of memorial to myself and a record of my obsessions. Happily, that urgency has abated but the desire to bring the project to fruition has not.

The choice of a speech-based installation was inspired by my career in the vocal arts, mainly as an opera director, my research in computer generated speech and Auslander's observations on Liveness, (Auslander, 1999). In particular whether liveness (a quality of real-time live performance) can be faked in a non-live performance e.g. a recording. Knowing how to fake those qualities that make a performance feel 'live' was an aptitude I had seen in many professional actors. Of course, this met a different requirement from my telephone box as the performances were already live and the need was to create a sense of real-time spontaneity, of making every performance seem as if it is the first, but I speculated that the methods I saw exploited could be tried on non-live platforms such as computer voices. In particular I had become greatly enamored by a method of speaking Shakespeare's verse that John Barton (Barton, 1984) and Peter Hall (Hall, 2004) had taught. The method required the actor to set aside factors such as character, situation and motivation and scrutinize the structure of the verse and prose, in particular observing line endings and full stops. This was a rigorous procedure required significant discipline on the part of the actor and needless to say some would rebel against its constraints, however those that persisted were often surprised when they discovered that the underlying 'musical score' of Shakespeare's verse, if followed, could produce some remarkably 'lively' results. I had the idea that this procedural method of creating this liveliness in speech was something that a computer, with no capacity for motivation or real emotion, might be able to replicate. Of course, there turned out to be so much more to it than that however a sense that the answer to convincing, emotional, characterful computer-generated speech could be something other than just aping human speech, still interests me.

Auslander, P. (1999) *Liveness: performance in a mediatized culture*. London, New York: Routledge.

Barton, J. (1984) *Playing Shakespeare*. London: Methuen.

Britishtelephones.com (2018) *Tele No. 232*. Available online: <http://www.britishtelephones.com/t232.htm>

Cereproc (2018) *Welcome to CereProc / CereProc Text-to-Speech*. Available online: <https://www.cereproc.com/>

Coltman, R. (2018) *The Telephone Box / Kiosk No 6*. Richard Coltman. Available online: <http://www.the-telephone-box.co.uk/kiosks/k6/>

Connor, S. (2000) *Dumbstruck: a cultural history of ventriloquism*. Oxford: Oxford University Press.

Edison, T. (2015) *Thomas Edison: The Lost Chapter • ITC Voices*. Available online: <http://itcvoices.org/thomas-edison-the-lost-chapter/>

Hall, P. (2004) *Shakespeare's advice to the players*. London: Oberon Books.

Kelley, J. F. (2018) *Where did the term Wizard of Oz come from*. Available online: <http://www.musicman.net/oz.html>

Turing, A. (1950) Computing machinery and intelligence. *Mind*, VOL. LIX. No.236., 433-460.

A 1937 K6 Telephone Box

June 5, 2019

Categories: Production



It is a 1937 red telephone box known as kiosk no. 6 (K6) designed by Giles Gilbert Scott (Coltman, 2018) located in a quiet North Yorkshire hamlet near the river Fleet. It was purchased from Ebay and restored by me. The telephone, model number 232 (Britishtelephones.com, 2018) looks and behaves like a normal telephone of the 1930's, it can ring, it has a dial, it has a dialing tone etc. Both the telephone and the box are iconic examples of industrial design much celebrated by the heritage community and in the case of the red telephone box, by the British tourist industry. I cannot deny the fact that these qualities acted as a draw for me. Tangible industrial objects, engineered to last, using materials like brass and Bakelite lend themselves to reimagining in the way that many modern similar artefacts do not. Items such as these have given rise to Steampunk and the current vogue for decorative objects upcycled from vintage industrial detritus. Like any stage, the theatre in which it is situated, the world it inhabits beyond the proscenium arch is part of the experience. In this case the telephone box is both stage and theatre.

Scary – ‘Its Me Speaking To Me’

June 5, 2019

Categories: Production



Dialing a number on the phone connects to a computer version of my voice. The voice was created by my good friends at Cereproc who are world leaders in this field. The method requires me to create recording of many hours of specific sample sentences from which all the sounds required for the production of intelligible speech using my voice can be extracted. The TTS Text to Speech Synthesis technology then has to search for the right sounds and assemble them into words and sentences. It produces a slightly unreal version of my natural speaking voice. It certainly sounds like me but the emotion is largely gone and the inflection may sound rather false. Most clearly it doesn't understand what it is saying. This is a limitation of all TTS systems at present. While it is possible to create a decent human like effect using a machine the machine has no awareness of the meaning of the words it is delivering. This can result in small silly mistakes or more serious chunks of unintelligibility but it always results in unbelievability, it simply isn't a credible person speaking, hence so far at least, TTS has not caught on for audio books. In theory any text can be passed to it programmatically and it will attempt to render it in my voice. In addition to the computer voice, recordings of my real voice are used, some subject to significant digital signal processing to produce weird and wonderful effects. Finally, and only for specific scheduled performances, unbeknown to the user, my live voice can be added to the mix.

The voice was created by Cereproc. Cereproc (2018) *Welcome to CereProc / CereProc Text-to-Speech*. Available online: <https://www.cereproc.com/>
These dynamic capabilities are not exploited in the installation yet.

Operator?

June 5, 2019

Categories: Production



[The-Scenario_rev2](#) Download

The Setting

June 7, 2019

Categories: Production



Given the persuasiveness of the box itself (often referred to as an iconic architectural object representing Britishness) a sensible objective is to provide a setting in which the telephone box itself is displayed to full advantage and thus provides a credibly realistic as well as atmospheric experience. Happily, it is set in a relatively remote place, in some respects a likely location for a phone box, outside my house on the side of a quiet no through road with five adjacent houses. Given its remoteness most users will probably stumble upon the installation when out walking as cars are rare.

This is a walk-up installation in which the user is encourage to participate by the ringing of the telephone bell as they pass the box. If this feature is not switched on (which it frequently isn't) the user can choose to enter the box voluntarily and lift the receiver. Written instructions are provided to direct the user to dial zero for the operator and on so doing they are given spoken instructions about the basic operation of the telephone. Many younger users are unfamiliar with dial techniques and the need to proceed slowly and patiently. This has proved to be a persistent problem particularly as children tend to be the predominant users.

For older users there are probably nostalgic associations with this type of telephone box. I have speculated that for some, despite it not being a blue police box, there could be an association with Dr Who and time travel which could also be useful. Some of the first scenarios I developed played on these qualities.

The box is for kissing, for emergencies, for good news, for bad news, for smoking, for pissing, for sheltering, for waiting.

Software/Programming Plan

July 1, 2019

Categories: Production



[k6_software_plan_rev2](#) Download

VNC, Python, Woodwork And The Like

July 15, 2019

Categories: Production



I have yet to get used to working with the Linux operating system. Sometimes stuff works and sometimes it doesn't. Of course there are reasons why this is the case – Linux is free, it is supported by a community of enthusiasts, there are many flavours, it is under constant revision, it is fiendishly complicated (to those like me who cannot be bothered to do the work to learn it properly), the apps it supports are similarly inclined to temperament, it is not always compatible with new or old hardware, it is nerdy, it supposes intelligence, it doesn't really want you to bother with the GUI (the screen with the mouse and the icons), it tries to be very secure, it tries to be very flexible – I could go on but instead by way of aide memoire here are a few highlights of my technical trials and tribulations.

I may have solved the problem of detecting when someone is in the phone box using load cells and Arduino – I made one of these

<https://www.instructables.com/id/Arduino-Bathroom-Scale-With-50-Kg-Load-Cells-and-H/> connected up a relay

<http://www.circuitbasics.com/setting-up-a-5v-relay-on-the-arduino/> that triggers my midi encoder [https://www.midiboutique.com/MIDI-](https://www.midiboutique.com/MIDI-Encoders/mkc64x)

[Encoders/mkc64x](https://www.midiboutique.com/MIDI-Encoders/mkc64x) to send a note on to Mido (Python) <https://mido.readthedocs.io/en/latest/> that can be interpreted in various ways by Pure Data (Pd)

<https://puredata.info/>

Now I am seeking to adjust a Python script by Cereproc (the people that created my Text to Speech voice) <https://www.cereproc.com/> so that it passes the timing of SSML markers to Pd.

Ubuntu 18 Abandoned

October 24, 2019

Categories: Production



Its nearly November. I have had a long break from the K6 but today I was able to spend a bit of time reacquainting myself with the issues I left hanging in June. Needless to say I had forgotten where I was and have not been taking adequate notes. Any hope of getting it all to work on my most up to date computer were dashed by the fact that Pure Data does not seem to be compatible with Ubuntu 18. I have had to go back to another machine, much older that still runs Ubuntu 16. I had made some other configuration changes that I had forgotten about that foxed me for a bit but I am writing this with the beginnings of a restored test machine upon which I can start to solve the Python issues I left in June – hopefully I can do some more tomorrow

Recording The Screen

October 25, 2019

Categories: Production



I have installed RecordMyDesktop on Ubuntu it seems to work fine but is very slow to render probably because of the limitation of the Shuttle PC Ubuntu is running on.

Dropbox – Files Moved

October 26, 2019

Categories: Production



I have reconfigured all the function calls to go to files on Dropbox – making them accessible to me from anywhere. Previously they were hidden in the bowels of the linux system now only the asterisk extension and sip files are hidden in the linux bowels and have to have accessed locally or via VPN

Monitors In My Office

October 26, 2019

Categories: Production



DELETE monitor connections 1

<https://youtube.com/watch?v=RtiaUf3eJ7c>



<https://youtu.be/3Usk2v-coZ4>

https://youtu.be/9bk0UV3R_mA

<https://youtu.be/nPgveHdkFaw>

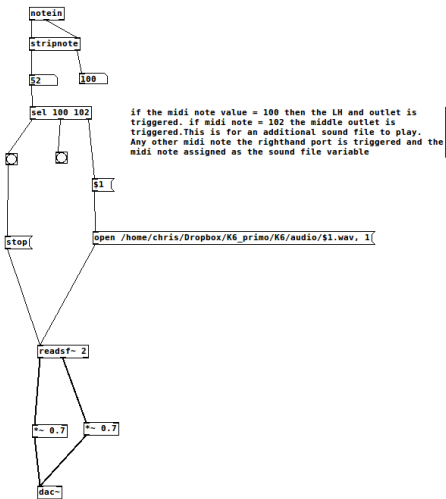
Midi Into PD

October 27, 2019

Categories: Production



this should have been straight forward but my code comments were not adequate and it took me a while to figure out what I had done. Anyway finally got it to work and tally with what was going on in Asterisk.



```
*extensions.conf (/etc/asterisk) - gedit
Open Save

[PRIMO]
SetLanguage(En)
;-----
; 3 digit calls starting with one
exten => _1XX,1,Answer()

;midi note value 102 sent to PD to play "please hold" file
exten => _1XX,n,System(python /home/chris/Dropbox/K6_primo/scripts/miditoPd.py 102)

;cereproc application text2wav references audio.voice and license.lic to read exten.xml and output ttsotput.wav

exten => _1XX,n,System(/home/chris/Dropbox/K6_primo/cerevoice_sdk/examples/basicctts/txt2wav /home/chris/Dropbox/K6_primo/cerevoice_sdk/examples/basicctts/audio.Voice /home/chris/Dropbox/K6_primo/cerevoice_sdk/examples/basicctts/license.lic /home/chris/Dropbox/K6/${EXTEN}.xml /home/chris/Dropbox/K6_primo/sounds/chris/ttsoutput.wav)

; convert wav file format to sln file
exten => _1XX,n,System(sox /home/chris/Dropbox/K6_primo/sounds/chris/ttsoutput.wav -t raw -r 8000 -s -2 -c 1 /home/chris/Dropbox/K6_primo/sounds/chris/render/ttsoutput.sln)

; send pd a midi note number for 3 digit number minus 100 (eg.103 becomes 3)
exten => _1XX,n,System(python /home/chris/Dropbox/K6_primo/scripts/miditoPd.py ${EXTEN}-100))

; play TTS output using playback command
exten => _1XX,n,Playback(/home/chris/Dropbox/K6_primo/sounds/chris/render/ttsoutput)

; midi note value 100 sent to PD to stop playing file
exten => h,1,System(python /home/chris/Dropbox/K6_primo/scripts/miditoPd.py 100)

;-----
Plain Text Tab Width: 8 Ln 8, Col 54 INS
```

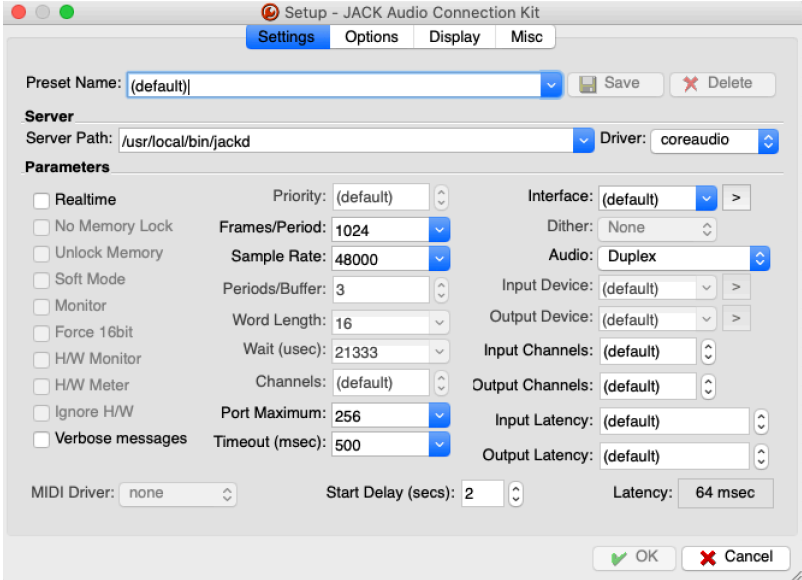
PD And Jack On OSX

October 29, 2019

Categories: Production



I have been struggling to get PD and Jack to work on my MAC OSX – in the end it was a simple of setting the correct path to the server.



VNC

October 31, 2019

Categories: Production



allows me to control the desktop of my Ubuntu machines from a MAC. the software of choice is X11VNC – reasonably easy to enable just a few stumbles to get it to load at boot – code below is copied from here <https://tecadmin.net/setup-x11vnc-server-on-ubuntu-linuxmint/>

```
1. make file x11vnc.service in /etc/systemd/system :
gksudo gedit /etc/systemd/system/x11vnc.service

Description=x11vnc remote desktop server
After=multi-user.target

Type=simple
ExecStart=/usr/bin/x11vnc -auth guess -forever -loop -noxdamage -repeat -rfbauth /home/****/.vnc/passwd
-rfbport 5900 -shared

Restart=on-failure

WantedBy=multi-user.target

2. sudo systemctl daemon-reload
sudo systemctl start x11vnc
sudo systemctl status x11vnc

3. if it's worked
sudo systemctl enable x11vnc.service

et voila
```


Asterisk JACK – Failure

October 31, 2019

Categories: Production



None of these worked

```
; Zero call to check Jack - none of this worked
;exten => 0,1,Answer()
;exten => 0,n,JACK()
;exten => 0,n,Set(JACK_HOOK(manipulate)=on)
;exten => 0,n,Set(JACK_HOOK(manipulate,i(pure_data:input0)o(pure_data:output0))=on)
;exten => 0,n,Jack(o(pure_data_0)i(pure_data_0))
```

I checked that the jack module had been installed – change to astrisk src directory and make menuselect –it was installed correctly

Tts_callback

November 2, 2019

Categories: Production



managed to get Asterisk to call tts_callback and cereproc chris to speak – here is the dialplan code

```
; cereproc application tts_callback references audio.voice and license.lic to read exten.xml and output
tts_callback.wav

exten => _1XX,n,System(python
/home/chris/Dropbox/K6_primo/cerevoice_sdk/examples/python/tts_callback18.py -L
/home/chris/Dropbox/K6_primo/cerevoice_sdk/examples/basic tts/license.lic -V
/home/chris/Dropbox/K6_primo/cerevoice_sdk/audio.voice /home/chris/Dropbox/K6/${EXTEN}.xml)

; convert wav file format to sln file

exten => _1XX,n,System(sox /${EXTEN}.wav -t raw -r 8000 -s -2 -c 1
/home/chris/Dropbox/K6_primo/sounds/chris/render/tts_callback.sln)

; play TTS output using playback command

exten => _1XX,n,Playback(/home/chris/Dropbox/K6_primo/sounds/chris/render/tts_callback)
```

Disorganised File System

November 30, 2019

Categories: Production



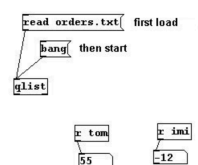
Today I discovered the perils of a disorganised file system.

The `tts_callback` routine in the `cereproc` python examples folder has undergone a certain amount of hacking by me. It is creating a file 'cue1.txt' that contains timing data gleaned from the `xml` file relating to marker files. I believed it was modifying a file in my home directory – it wasn't it was modifying a file in the root directory. I need to reorganise the Asterisk and Cereproc files so they are all in obvious places.

In addition I need to undo the work i did on generating absolute timing values for the triggering of `pd` cues based on `xml/ssml` markers so that it works with `qlist` in `PD`

A practical expansion to "textfile" is "qlist". This can be used to send chronologically ordered messages with a text file to "receive" objects. The file "orders.txt" has these contents:

```
0 tom 55;
1000 imi -12;
4000 tom 3;
2000 imi -2;
```



At the beginning, "tom" receives the number 55; one second later, "imi" receives -12; four seconds later "tom" receives 3; two seconds later "imi" receives -2. It works the same way with symbols.

Otherwise, "qlist" has the same functions as "textfile": add, add2, rewind, clear.

You can also modify the tempo using "tempo" and a factor:



Jack Breakthrough

December 5, 2019

Categories: Production



Alistair’s mere presence caused a break-though – here is the dialplan

```
exten => 300,1,Answer()  
;exten => 300,2,MusicOnHold()  
exten => 300,n,JACK()  
exten => 300,n,Set(JACK_HOOK(manipulate)=on)  
  
;END OF EXTENSIONS.CONF -----
```

More On Jack

December 7, 2019

Categories: Production



My new solution to exercising more control over the playback of audio to the different kiosk channels is to pass playback of the cereproc rendered file over to PD and then route it through app_jack to the handset rather than rendering it directly through Asterisk playback – the first few lines of code are:

```
; answer 3 digit calls starting with one

exten => _1XX,1,Answer()

;cereproc application tts_callback references audio.voice and license.lic to read exten.xml and output
tts_callback.wav

exten => _1XX,n,System(python
/home/chris/Dropbox/K6_primo/cerevoice_sdk/examples/python/tts_callback18.py -L
/home/chris/Dropbox/K6_primo/cerevoice_sdk/examples/basic tts/license.lic -V
/home/chris/Dropbox/K6_primo/cerevoice_sdk/audio.voice /home/chris/Dropbox/K6_primo/K6/${EXTEN}.xml)

;Enable Jack

exten => _1XX,n,JACK()
```

once the jack channel is available then pd can play the wav file created by cereproc and placed in the / root directory – it may be better to modify tts_callback to locate the file somewhere else

Another Step With App_jack

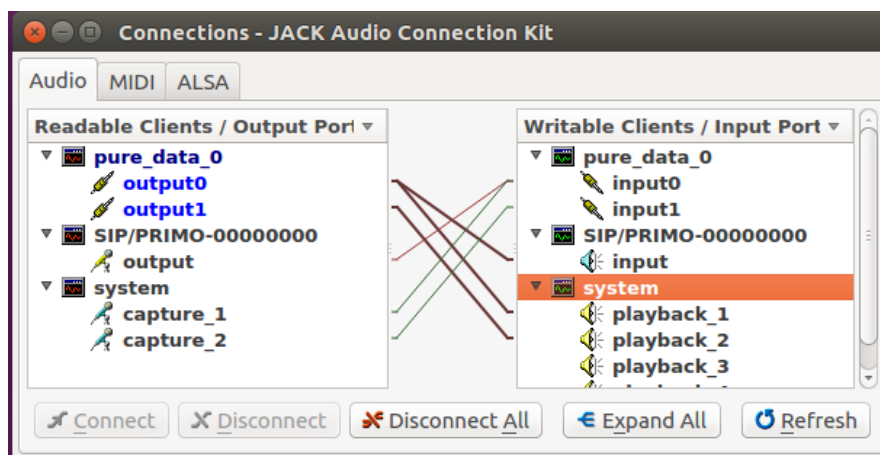
December 8, 2019

Categories: Production



much to my amazement this code worked – connecting an asterisk I/O channel to Pd I/O channels

```
exten => _1XX,n,JACK(o(pure_data_0)i(pure_data_0))
```



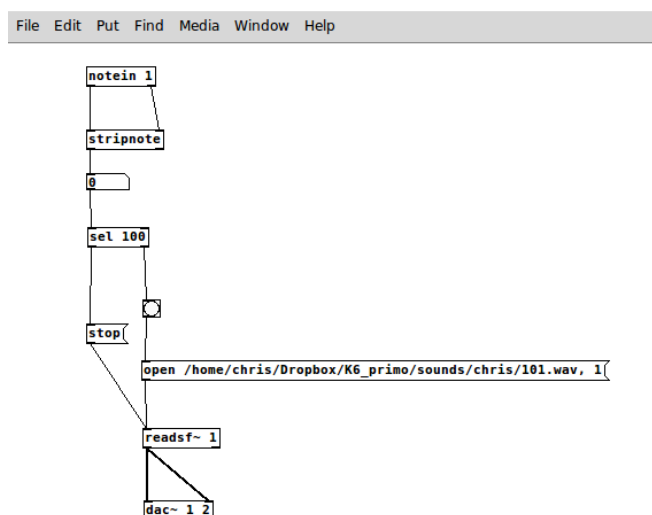
PD Next Step

December 11, 2019

Categories: Production



the connection between app_jack and PD both input and output appears to work and the quality is fine – the python script to send midi data to PD has stopped working from the command line at the moment – banging the readsf below will play the file through the handset and the handset audio come into PD – ignore the midi trigger



This is not working as it should

```
python /home/chris/Dropbox/K6_primo/scripts/miditoPd.py 100
```

Tidying File Locations

December 21, 2019

Categories: Production



a slight modification in the call to `tts_callback` adding the 'o' option will locate the output file where it is wanted

```
python /home/chris/Dropbox/K6_primo/cerevoice_sdk/examples/python/tts_callback19.py -L  
/home/chris/Dropbox/K6_primo/cerevoice_sdk/license.lic -V  
/home/chris/Dropbox/K6_primo/cerevoice_sdk/audio.voice -o /home/chris/Dropbox/K6_primo/sounds/chris/  
/home/chris/Dropbox/K6_primo/cerevoice_sdk/examples/python/my_input1.xml
```

Start-Up Sequence

December 22, 2019

Categories: Production



this one works – and provides verbosity at the asterisk CLE

```
1. qjackctl
2. activate patchbay
2. start
3. show connect window to show operations
4. asterisk at prompt
5. Pd at prompt
6. alsa-midi settings
7. start audio in Pd
8. pd open file
9. sudo /etc/init.d/asterisk start
10. asterisk -cvvvvv
```

Python Call

December 23, 2019

Categories: Production



reorganized file system

```
python /home/chris/Dropbox/K6_primo/cerevoice_sdk/examples/python/tts_callback19.py -L  
/home/chris/Dropbox/K6_primo/cerevoice_sdk/license.lic -V  
/home/chris/Dropbox/K6_primo/cerevoice_sdk/audio.voice -o /home/chris/Dropbox/K6_primo/speech_audio/  
/home/chris/Dropbox/K6_primo/ssml/100.xml
```


Xml Test File

December 23, 2019

Categories: Production



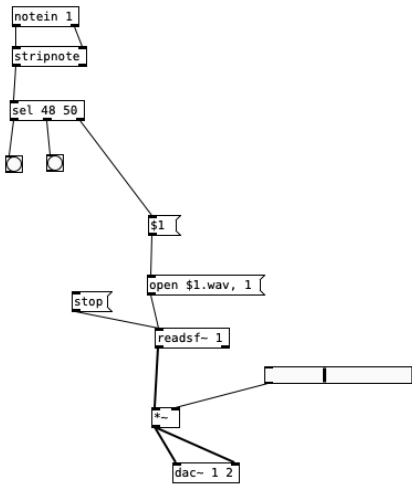
```
<?xml version="1.0" encoding="UTF-8"?>
This is speech over the sound effect mark one. <mark name="audplay, 100a.wav, 0, 10, 0"/>
This is file number 100.
It is triggering a kiosk file
A one second break from here<break time="1000ms"></break> to here.
This is a sound effect file. <audio src="/home/chris/Dropbox/K6/fx/105/5_2.wav"/>
This is speech over the sound effect mark two. <mark name="audplay, 100b.wav, 0, 10, 0"/>
This is speech over the sound effect mark three. <mark name="audplay, 100c.wav, 0, 10, 0"/>
This is the end of the file.

</xml>
```

Pd Basic Use Of Variables

December 23, 2019

Categories: Production



Python Code To Send Instructions To Pd

December 28, 2019

Categories: Production



```
#put g_end+start into list
    cue_count = cue_count+1
    print(cue_count)
    time_list.append(g_end+start)
    file1 = open('/home/chris/Dropbox/K6_primo/cues/cue1.txt', 'a')
    if cue_count ==1:
        string1=('%s', '%s' % ((time_list), name))
        print("This is string 1 '%s'" % string1)
        print(string1.replace(", ", ' '))
        string2 =(string1.replace(", ", ' '))
        print("this is string2 '%s'" % string2)
        string3 =(string2.replace("'", ' '))
        print("this is string3 '%s'" % string3)
        #for char in string.punctuation:
            #string3=string3.replace(char, ' ')
        #file1.write("%s' \n" % string3)
        lst =
        # Open the file with a context manager
        with open("/home/chris/Dropbox/K6_primo/cues/cue1.txt", "a+") as myfile:
            # Convert all of the items in lst to strings (for str.join)
            lst = map(str, lst)
            # Join the items together with commas
            line = ",".join(lst)
            # Write to the file
            myfile.write((line) + "\n")
        print("cue1.txt first time file written")
    if cue_count >1:
        string1 = ('%s', '%s' % ((time_list)-(time_list), name))
        print("This is string 1 '%s'" % string1)
        print(string1.replace(", ", ' '))
        string2 = (string1.replace(", ", ' '))
        print("this is string2 '%s'" % string2)
        string3 = (string2.replace("'", ' '))
        print("this is string3 '%s'" % string3)
        #file1.write("%s' \n" % string3)
        lst =
        # Open the file with a context manager
        with open("/home/chris/Dropbox/K6_primo/cues/cue1.txt", "a+") as myfile:
            # Convert all of the items in lst to strings (for str.join)
            lst = map(str, lst)
            # Join the items together with commas
            line = ",".join(lst)
            # Write to the file
            myfile.write((line)+"\n")
        print("cue1.txt second time file written")
```

Python Code + Rounding

December 28, 2019

Categories: Production



```
string1 = ("%s", '%s' % ((round(time_list,2))-(round(time_list,2))), name))
```

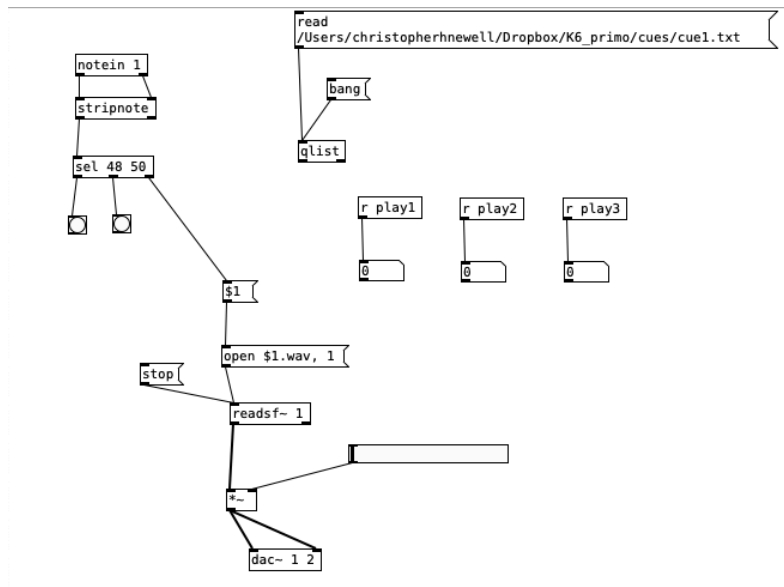
Code That Works

December 29, 2019

Categories: Production



```
cue_count = cue_count+1
print(cue_count)
time_list.append(g_end+start)
file1 = open('/home/chris/Dropbox/K6_primo/cues/cue1.txt', 'a')
if cue_count ==1:
    string1=('%s', '%s' % ((int(round(time_list,2)*1000)), name))
    print("This is string 1 '%s'" % string1)
    print(string1.replace(", ", ''))
    string2 =(string1.replace(", ", ''))
    print("this is string2 '%s'" % string2)
    string3 =(string2.replace("'", ''))
    print("this is string3 '%s'" % string3)
    #for char in string.punctuation:
        #string3=string3.replace(char, '')
    #file1.write("%s' \n" % string3)
    lst =
    # Open the file with a context manager
    with open("/home/chris/Dropbox/K6_primo/cues/cue1.txt", "a+") as myfile:
        # Convert all of the items in lst to strings (for str.join)
        lst = map(str, lst)
        # Join the items together with commas
        line = ",".join(lst)
        # Write to the file
        myfile.write((line) + "\n")
    print("cue1.txt first time file written")
if cue_count >1:
    string1 = ('%s', '%s' % (((int(round(time_list,2)*1000)))-
((int(round(time_list,2)*1000))), name))
    print("This is string 1 '%s'" % string1)
    print(string1.replace(", ", ''))
    string2 = (string1.replace(", ", ''))
    print("this is string2 '%s'" % string2)
    string3 = (string2.replace("'", ''))
    print("this is string3 '%s'" % string3)
    #file1.write("%s' \n" % string3)
    lst =
    # Open the file with a context manager
    with open("/home/chris/Dropbox/K6_primo/cues/cue1.txt", "a+") as myfile:
        # Convert all of the items in lst to strings (for str.join)
        lst = map(str, lst)
        # Join the items together with commas
        line = ",".join(lst)
        # Write to the file
        myfile.write((line)+"\n")
    print("cue1.txt second time file written")
```



Some Confusion

February 10, 2020

Categories: Production



The instructions in the ssml file are read by TTS_callback. The markers in the ssml file are read by the supplementary code i have added to tts_callback and a cue.txt file is output to the cues folder. The cue.txt file contains a time in msec, a file name (+trigger 'extension number' 'io number'). The io numbers are 1 = receiver, 2 = kiosk, 3 = external, 4 = record from kiosk mic.

There will need to a limit on the number of trigger receivers available in PD and thus the number of trigger in any extension sequence.

```
<!-- the mark name format is 'filename channel' io channels are designated by numbers 1 = receiver, 2 =  
kiosk, 3 = external, 4 = kiosk mic  
--> <?xml version="1.0" encoding="UTF-8"?>
```

```
This is an fx file embedded into an synthesis stream <audio  
src="/home/chris/Dropbox/K6/fx/100_1/100_1.wav"/>  
This is audio file play routed to receiver.<mark name="triggerA 1;"/>  
This is audio file play routed to kiosk. <mark name="triggerB 2;"/>  
This is audio file play routed to external. <mark name="triggerC 3;"/>  
This is audio file record from kiosk mic.<mark name="triggerD 4;"/>  
This is record file play routed to receiver  
This is record file play routed to kiosk.  
This is record file play routed to external.  
Now dial another number.  
</xml>
```

Clear Cue File

February 12, 2020

Categories: Production



added the following to the TTS_callback file

```
open('/home/chris/Dropbox/K6_primo/cues/cue1.txt', 'w').close()
```

Triggers

February 12, 2020

Categories: Production



need to resolve resetting the qlist in Pd – it seems to cache the previous iteration

K6 Tech Sequence

February 14, 2020

Categories: Production



[K6_tech_sequence](#) Download

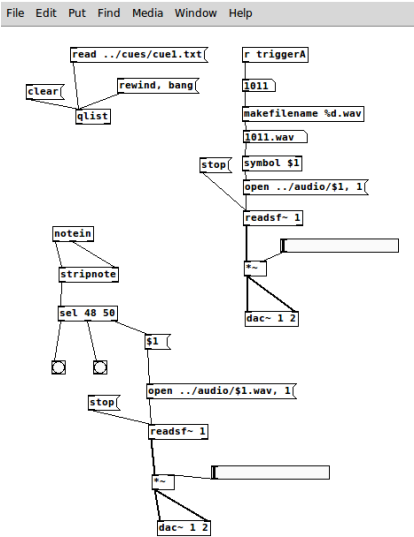
Pd Progress

February 16, 2020

Categories: Production



i have made progress in connecting the cue.txt file generated by tts_callback to PD



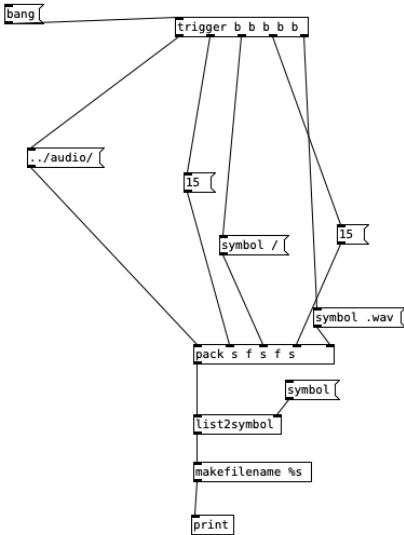
Pd Generating A File Path

February 20, 2020

Categories: Production



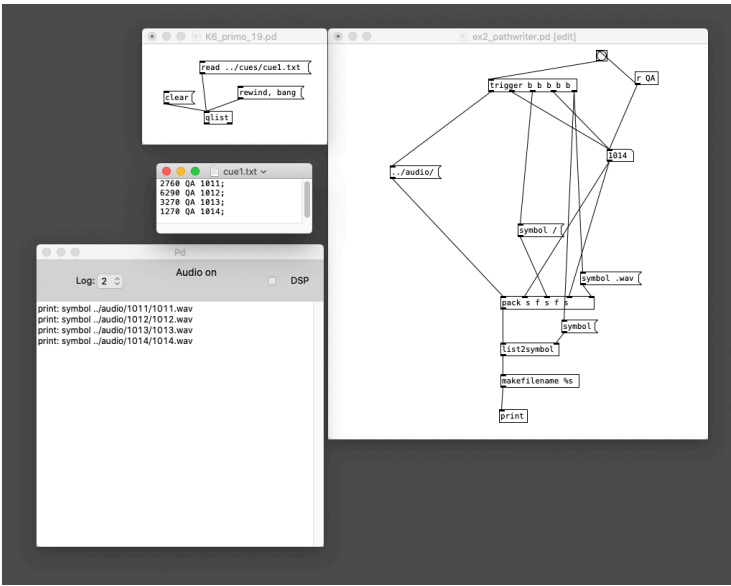
managed to botch together something that works in 3hrs at 4 am – here its is.



Pathwriter Working

February 20, 2020

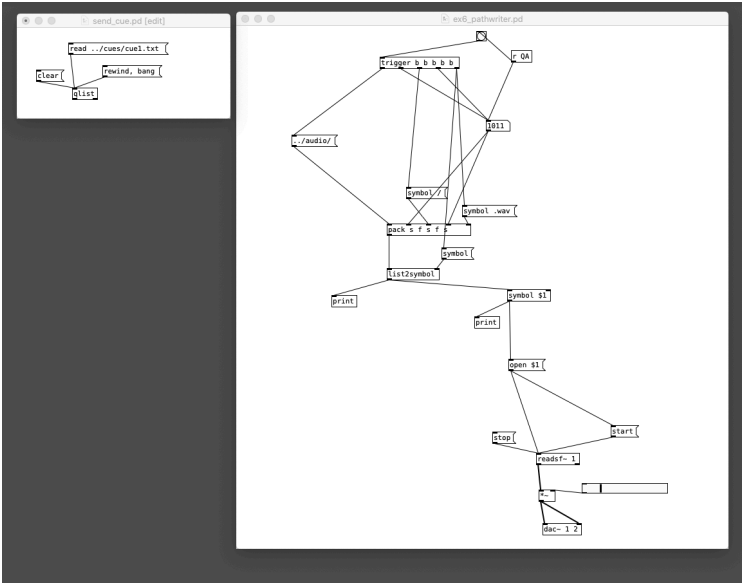
Categories: Production



Playing A File Triggered Within Tts_callback

February 22, 2020

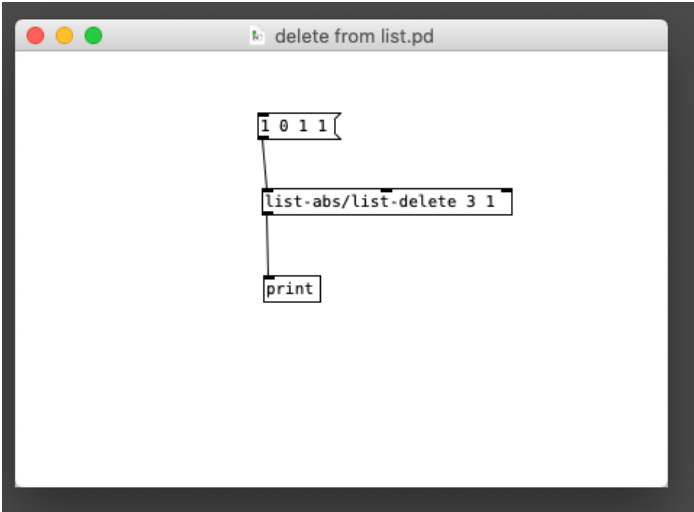
Categories: Production



Delete Item By Index From List

February 23, 2020

Categories: Production



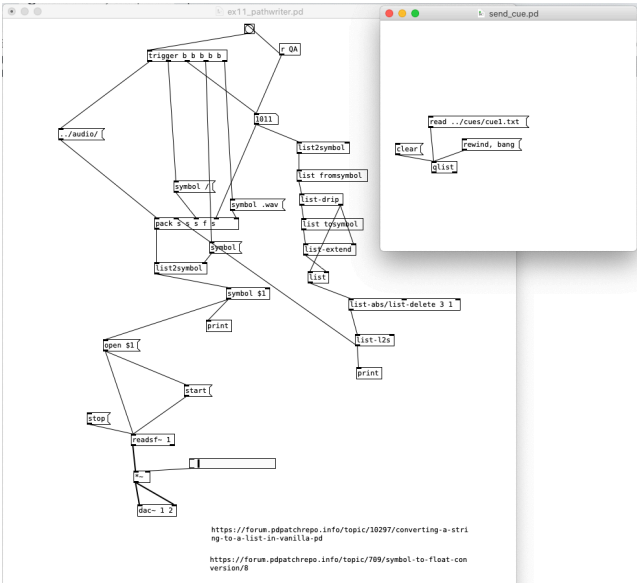
Full Path To Audio Files In Pd

February 24, 2020

Categories: Production



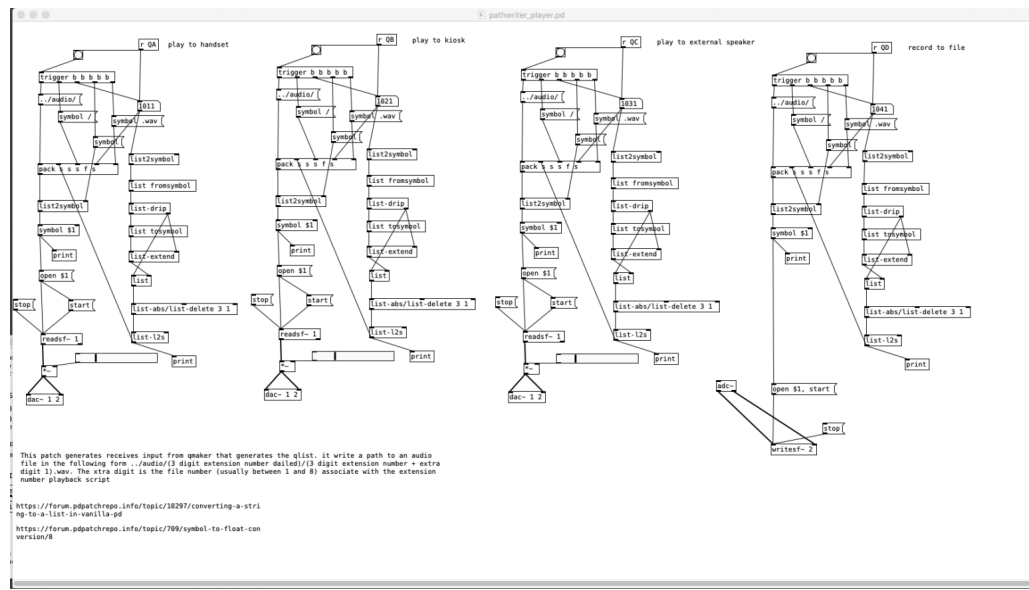
i have probably one of the messiest solution to resolving the problem rendering a valid path for Pd to play audio files – i am sure there is a much more elegant way to do this but at least this seems to work in a theoretical set up



Multi Channel Playback And Recording

February 26, 2020

Categories: Production



Lockdown Recap

April 5, 2020

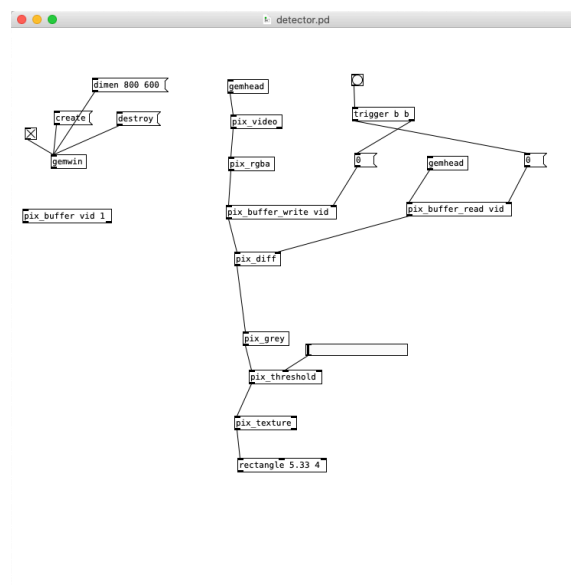
Categories: Production



Had to recap on work done in February – wasted time figuring out that the pathwriter player wouldn't work on Linux because i didn't have the libraries installed in the right place – this will need sorting out – more foolish was a hour spent looking for a solution because forgot that a double click was required to trigger the glist not just a single click.

A managed to get the example gem/pd file to work for presence detection – chapter 5 of Chung's brilliant book

<https://www.packtpub.com/gb/hardware-and-creative/multimedia-programming-pure-data>



PD Externals Paths

April 6, 2020

Categories: Production



still struggling to get this to be logical. the two different versions for linux 46 and 50 have different paths to externals – some externals seem to require a path as part of the object others don't – it may be that the two different versions are sharing a config file and that is confusing things – anyway the attached patch is work again now on the linux machine and app_jack has managed to locate the correct pd-channels – see notes below.

Pd version 50.2 – terminal pd

paths

1- /home/chris/.local/lib/pd/extra – nilwind and zexy are installed here

paths

2- path used by earlier version 46.7

/usr/lib/pd/extra – Gem, list-abs, pix_drum, pix_fiducialtrack, pix_mano

ACTION – consolidated to 1 – NOT RESOLVED

rewritten testringmido script to point to correct sip PRIMO

python /home/chris/Dropbox/k6_primo/scripts/testringmido.py

entry to extensions.conf added

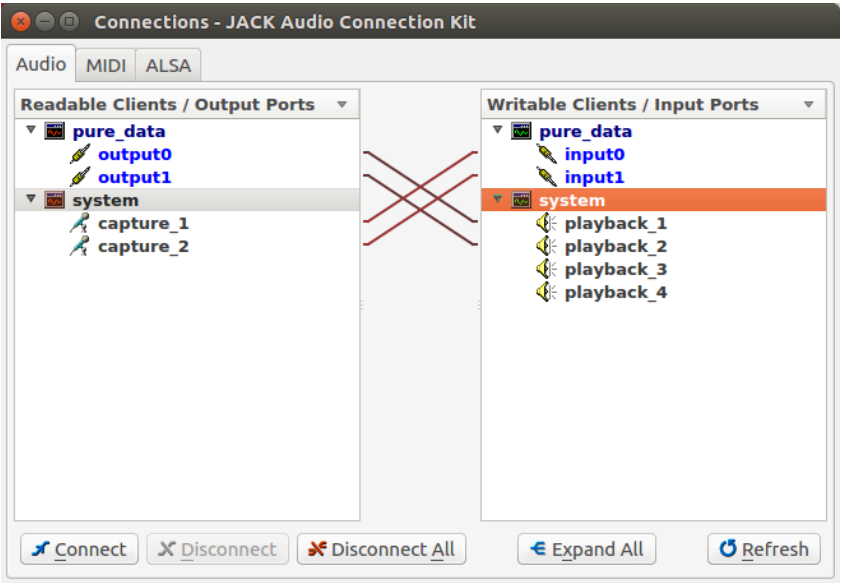
; to respond to PIR trigger from ringmido => ringbash

exten => 300,l,Answer()

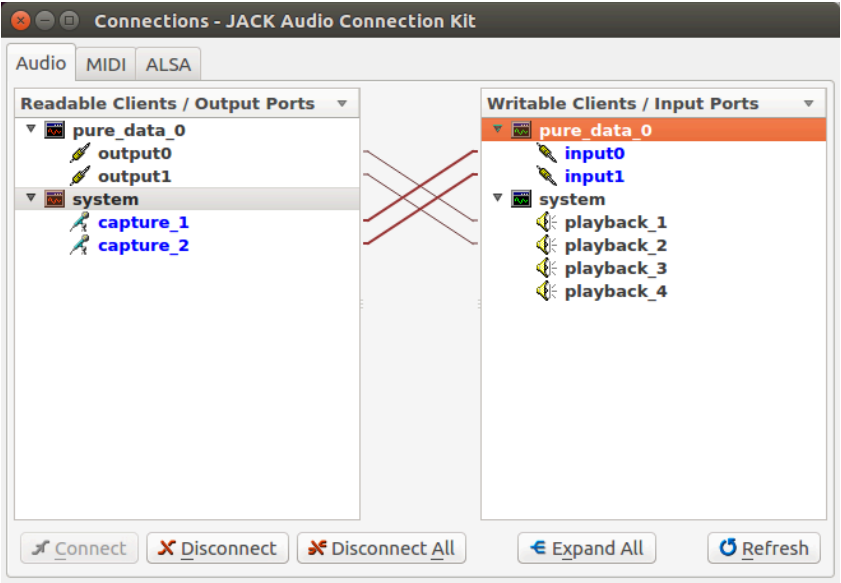
RESOLVED – resolved only operational with specific phone type – most bizarre

issue with app_jack unable to recognise latest version of PD Ports

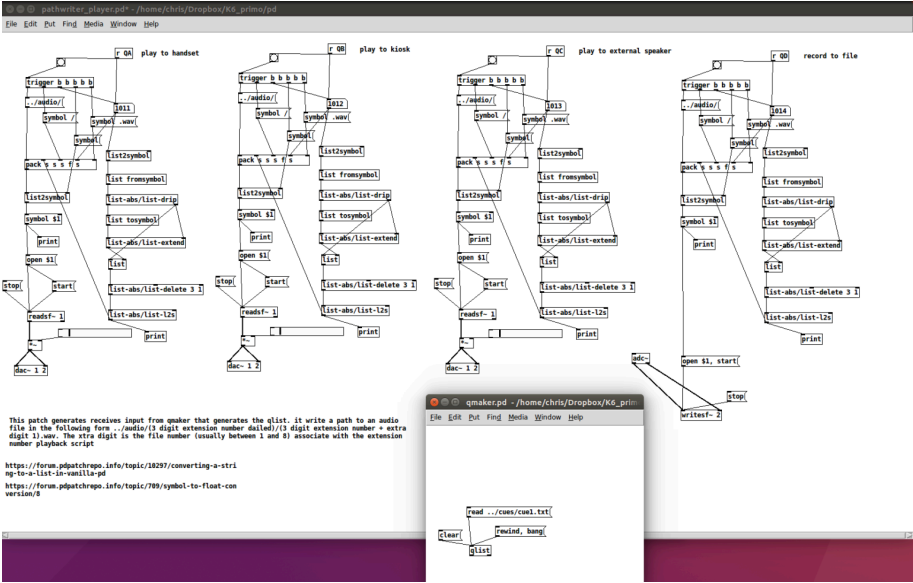
PD Ports ver 46.7 names pd ports **pure_data_0** – whereas ver 50.2 names them **pure_data**



version 50



version 46



Trigering A Ring

April 7, 2020

Categories: Production



```
asterisk -rx 'originate SIP/PRIMO extension 300@K6_PRIMO'
```

Followed a blind alley thought the problem with triggering a ring was a context issue in the dialplan with the sip and context both having the same name “PRIMO” – changed the context to K6_PRIMO – no difference.

Then i thought i had solved this when i discovered that for some reason the telephone i was using would not ring when connected to one of the two ATA's – strangely it worked on the old one but not the one dedicated to the PRIMO version of the system. Changed to the working phone.

Later on: still got problems with this – it may have something to do with the mode that Asterisk is running in – in the working version Asterisk runs as if on a remote terminal -r, however on the primo version it runs in console mode -c. – the solution may be to adjust the permissions so i did this

“Just change the Asterisk Permission in the asterisk.conf”

```
;astctlpermissions = 0660
```

```
astctlpermissions = 7777
```

```
astctlowner = root
```

```
astctlgroup = apache
```

```
astctl = asteriskctl
```

<https://community.asterisk.org/t/asterisk-unable-to-connect-to-remote-asterisk-solved/40662/5>

and this meant for the first time ever i seem to be able to logon to a console and a remote console at the same time – this may solve several problems – we will see!

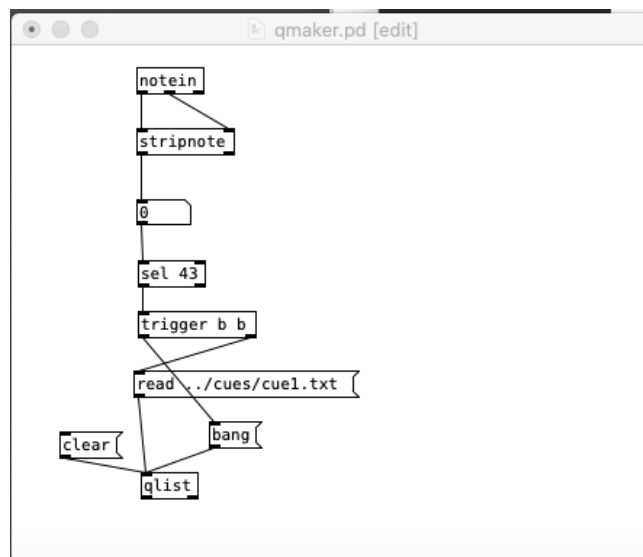
Tts Playback With Audio File Triggering Working With Asterisk

April 9, 2020

Categories: Production



i suppose this is a big day – i abandoned two day of trying to get the ring trigger to work and worked on the asterisk tts triggers with pd. it works perfectly! i am resigned to not using app_Jack (again – although i have written to the developer to see if he can help) and thus losing elegant audio to handset capabilities – although it may be possible using the tap boxes i still have installed –without the app_jack requirement to run in console mode the ring into the box feature will work again. i wasted half the morning messing =up the file paths yet again which triggered a bunch of errors from python that were highly misleading although they did reveal a tiny error made by the original developers at cereproc. i need to decide on a sensible numbering system for midi note triggers as they are pretty random just now – eg 43 – triggers the qlist generator and the phone to ring – whoops!



On Leave

April 19, 2020

Categories: Production



I have been on leave which has provided a good amount of extra playtime. I have given up with app_jack – i believe it would probably provide the best way of accessing the telephone transmitter and receiver but i just cannot figure it – it may be one for future development. The tts_callback modifications that give the cue points to asterisk appear to work well and can be used to trigger playback or recordings. I have a usb via cat 5 connection to the phone box that sporadically gives an arduino IDE connection (unreliable in both XP and Linux) – i think this is an arduino IDE problem – it can provide a usb camera feed which could be used with GEM (future development if required). I reinstalled Ubuntu Asterisk and everything else and by ensuring that it runs as user Chris I believe i have solved the problem with the PIR detector ringer. Had a silly problem with Python – basically a typo in one of the scripts that eluded me. I think the solution to the dramatic script is in sight. done some work on triggering user recordings form the kiosk mic that sound fine – anything down the telephone is dreadful. i belive the underfloor sensor will work better – not a bad couple of weeks

More Python And Pd

April 20, 2020

Categories: Production



Uncovered some errors made with my python script all related to not closing files. Here is the revised code

```
import os
path = "/home/chris/Dropbox/K6_primo/ssml/"
def fcount(path):
    """ Counts the number of files in a directory """
    count = 0
    for f in os.listdir(path):
        if os.path.isfile(os.path.join(path, f)):
            count += 1
    return (count-2)+101

count_files = (fcount(path))

print count_files

ninety-nine = open("/home/chris/Dropbox/K6_primo/ssml/99.xml", "w")

ninety-nine.write("There are %d in the ssml folder" %count_files)

ninety-nine.close()

poemnumber = open("/home/chris/Dropbox/K6_primo/poemnumber.txt", "w")

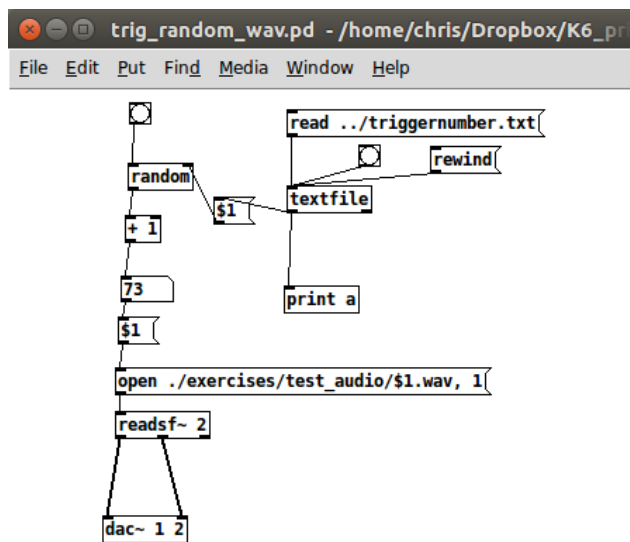
poemnumber.write('heloo world %d' %count_files)

poemnumber.close()

number_as_string = str(count_files)

print("ssml files %d" %count_files)
```

developed a simple way of random playing of trigger files from the PIR – not yet complete.



Interface Progress

April 25, 2020

Categories: Production



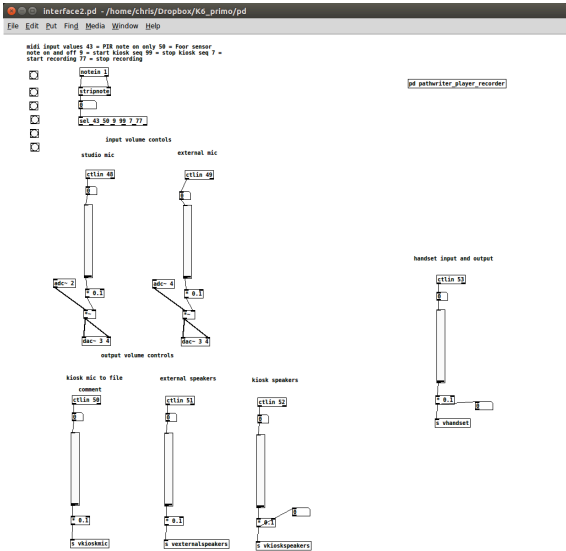
midi mapping from the midi boutique device.

92 85 78 71 64 57 50 43



midi mapping from APC Mini see image above

interface in pd so far



Spot Effects And Spigots

May 7, 2020

Categories: Production



Resolved an issue whereby spot effect wav files triggered by ssml and processed by cerevoice didn't work. it was all do with the format 48,000 hrz mono

had a depressing time failing to figure out the logic to process and block midi note on and note off – resorted to asking on the pure dat forum and the solution was stupidly straight forward . i still dont know why my 3 days of trying came to nothing –

<https://forum.pdpatchrepo.info/topic/12793/help-capturing-and-blocking-midi-events>

More Scripts

May 12, 2020

Categories: Production



Three new scripts give bespoke configuration for specific extensions

```
#!/usr/bin/python
# -*- coding: utf-8 -*-
import os

path = "/home/chris/Dropbox/K6_primo/ssml/"
def fcount(path):
    """ Counts the number of files in a directory """
    count = 0
    for f in os.listdir(path):
        if os.path.isfile(os.path.join(path, f)):
            count += 1
    return (count)

count_files = (fcount(path))

zero = open("/home/chris/Dropbox/K6_primo/ssml/0.xml", "w")

zero.write("""<?xml version="1.0" encoding="UTF-8"?>
You have dialed zero. <break time="1000ms"></break>
You may dial any number between 101 and 10""""""%d""""""
.</xml>"""" %count_files)

zero.close()

poemnumber = open("/home/chris/Dropbox/K6_primo/poemnumber.txt", "w")

poemnumber.write("%d" %count_files)

poemnumber.close()

number_as_string = str(count_files)

print("ssml files %d" %count_files)
```

0.py – for calls to operator

note the requirement to specify encoding as UTF 8 in order for XML to be rendered correctly and note the crazy number of quote marks required

```
#!/usr/bin/python
# -*- coding: utf-8 -*-

import os

path = "/home/chris/Dropbox/K6_primo/audio/stories/"
map = {}
def fcount(path, map = {}):
    count = 0
    for f in os.listdir(path):
        child = os.path.join(path, f)
        if os.path.isdir(child):
            child_count = fcount(child, map)
            count += child_count + 1 # unless include self
    map = count
    return count

count_files = ((fcount(path))+201)

twohundred = open("/home/chris/Dropbox/K6_primo/ssml/200.xml", "w")

twohundred.write("""<?xml version="1.0" encoding="UTF-8"?>
You have dialed 200. <break time="1000ms"></break>
To leave your story dial """"""%d""""""
.</xml>"""" %count_files)

twohundred.close()

storynumber = open("/home/chris/Dropbox/K6_primo/storynumber.txt", "w")

storynumber.write("%d" %count_files)

storynumber.close()

number_as_string = str(count_files)

print("stories %d" %count_files)

# make folder for story files to be stored

os.mkdir("/home/chris/Dropbox/K6_primo/audio/stories/%d" %count_files)
```

200.py – this deals with user recordings – note it generates the directory ready for PD to make the recording – there has got to be a better way to do this

```
#!/usr/bin/python
# -*- coding: utf-8 -*-

import os
path = "/home/chris/Dropbox/K6_primo/ssml/"
def fcount(path):
    """ Counts the number of files in a directory """
    count = 0
    for f in os.listdir(path):
        if os.path.isfile(os.path.join(path, f)):
            count += 1
    return (count)

count_files = (fcount(path))

print count_files

threehundred = open("/home/chris/Dropbox/K6_primo/ssml/300.xml", "w")

threehundred.write("Thank you for picking up. There are %d in the ssml folder" %count_files)

threehundred.close()

poemnumber = open("/home/chris/Dropbox/K6_primo/poemnumber.txt", "w")

poemnumber.write('%d' %count_files)

poemnumber.close()

number_as_string = str(count_files)

print("ssml files %d" %count_files)
```

300.py – deals with users picking up when the phone rings

Backups

May 29, 2020

Categories: Production



finally managed to figure out clonezilla – so i have a complete backup of the system on a separate machine – clonezilla is not user friendly!!

<https://clonezilla.org/>

Icecast2 And Darkice

May 29, 2020

Categories: Production



spent half a day configuring the live broadcast – icecast and darkice can be installed via synaptic – then there is a bit of configuring of files required, (details in darkice folder) but not too arduous

this is the URL for the stream http://81.136.203.155:7000/di_stream.mp3

in theory the same code can be used in the MOH config file

mode=custom

application=/usr/local/bin/mpg123 -q -s -mono -r 8000 -f 8192 -b 0 -@ http://81.136.203.155:7000/di_stream.mp3

but i am not sure how useful that will be given the potential network delays

Jack Patchbay

May 29, 2020

Categories: Production



another non intuitive system – i have created a file but the patch cables don't appear to be complete in the visualisation having said that it seems to work – created a new patchbay with the darkice stream connectivity

MOH With Live Stream

June 9, 2020

Categories: Production



is possible! – add this to MOH Config in etc/asterisk

mode=custom

application=/etc/alternatives/mpg123 -q -s -m -r 7000 -f 8192 -b 0 -@ http://81.136.203.155:7000/di_stream.mp3

Percent Character Problems

June 24, 2020

Categories: Production



If the % percent character is included in SSML to be rendered by Python it has to be formatted correctly otherwise it throws things out when used in conjunction with %d variables. i don't yet know how to get round that issue

Pause

June 28, 2020

Categories: Production



after a long period of development i have to pause and get on with other things. so that i don't forget here are the things that need doing

- position the external speaker for optimum effect
- ensure that a "please wait" message precedes the relevant connection
- figure out how to pre set jack with all the relevant connections
- automating the recording of broadcasts
- polish existing extension stories and create more
- create trigger files

I'm Back – And Inspiration

August 1, 2020

Categories: Production



i have some holiday from the university so i am back on the project. i still need to resolve a few things from the list on my last post but i am broadly satisfied with the technical setup. i did a test broadcast of lisa's new album from the box , well actually as if from the box, and the icecast system for web radio worked pretty well. i have been preparing a script for Halloween somewhat influenced by DEVs and Samuel Beckett – so some modest progress

It's October

October 24, 2020

Categories: Production



Since my holiday on August I have been having a painful time creating content rather than resolving technical problems or contributing to this blog. My 10 day holiday was modestly productive and I produced a script that has moved completely away from what I planned a few months ago. This process should have been fun but was actually very arduous with only about twenty minutes worth of words produced and they are certainly not great words. That said I am satisfied that I am onto something interesting but it will be work in progress on October 31st for the halloween special. here are the SSML files for future reference

[halloween_scripts](#) Download

Broadcasting Live From The 'Telephone Box That Talks A Bit Like Me' On Halloween Night At 8 Pm

October 28, 2020

Categories: Production



Copied from <https://www.gravityisahat.com>

There is so much I could say about it, apologies and pathetic justifications to alleviate the pressure to show something good, worthy, arty, entertaining... but instead i will say nothing except its only 20 minutes long:

<http://giss.tv:8000/gravityisahat.mp3>

and then recordings and videos

<http://k6.gravityisahat.co.uk/live-feeds/>



Video Of The Live Performance For Halloween

November 28, 2020

Categories: Production



Ash

<https://youtube.com/watch?v=6CWYuAlhrek>



Voice To Score

December 16, 2020

Categories: Production



To send from Onyx to Yamaha Voice to Score on old Dell

Note Dell very temperamental – unplug from mains and reconnect if desktop does not appear

Set audio out on computer to Onyx

Connect Behringer mixer in to Alt 3-4 on Onyx

Set channel 15-16 to Alt 3-4 (mute button)

Ensure that firewire 1-2 is set as the input to channel 15-16

Behringer mixer main out goes to Yamaha card input

Adjust levels accordingly

Installing Everything Afresh

December 30, 2020

Categories: Production



update May 24

did not go too well

abandoned upgrade to ubu 24 after disk failure went back to ubu 20 with Asterisk 18

followed the instructions contained in this document (for the most part) with these more up to date ones

<https://reintech.io/blog/setting-up-asterisk-voip-server-ubuntu-22>

seemed to hit problems related to user groups and settings

The edits below -cause problems – so i have revised them in the instructions

`sudo gedit /etc/default/asterisk runuser = chris ; The user to run as. rungroup = chris ; The group to run as.`

`sudo gedit /etc/asterisk/asterisk.conf runuser = chris ; The user to run as. rungroup = chris ; The group to run as.`

update January 2022

Managed to reinstall everything on UBU 20

In general all went quite well.

Issues with screen resolution on the VGA monitor resolved

<https://askubuntu.com/questions/1075157/unable-to-set-my-screen-resolution-higher>.

and major issues **finally resolved** with mido -

install Python 2

install Pip 2 -

<https://linuxize.com/post/how-to-install-pip-on-ubuntu-20.04/>

install build essential (with synpatic)

rtmidi installation instructions

<https://spotlightkid.github.io/python-rtmidi/installation.html#requirements>

asterisk showed an error (during install)

```
chris@chris-UBU20:/usr/src/asterisk-16.23.0$ sudo contrib/scripts/get_mp3_source.sh
```

```
svn: E170013: Unable to connect to a repository at URL 'https://svn.digium.com/svn/thirdparty/mp3/trunk'
```

```
svn: E670003: Temporary failure in name resolution
```

```
chris@chris-UBU20:/usr/src/asterisk-16.23.0$
```

This may relate to issues later encountered when i forgot to install 123mpg and thus the MOH failed

Notes for the upgrade to UBU 20 in Jan 2022 as I remember them - details are in the asterisk reinstall afresh

Asterisk MOH relies on the icecast server running. The MOH config file will need updating for UBU 20

The two servers PRIMO and UBU20 use two different ports for the ice cast server- check that the various files that contain references to ports 8000 or 7000 are updated

Network - clashes occurred in NAT open ports with some open ports allocated to more than one IP - open ports for PRMO and UBU20 must not be duplicated

The right version of Python (2.7) must be installed a made default for any of the cereproc stuff to work. and Pip2 must be installed so that MIDO works.

GISS TV appeared to need to simple reset of the interface to work.

Could not figure how to install KX studio- abandoned

QJackctl - refused to allow the connection of the UMC 404 midi ports - I am not sure why then it did - Jack memory lockdown problems resolved somehow

Mido was a nightmare until Pip 2 was installed

Sox had some deprecated options

<https://computingforgeeks.com/how-to-install-asterisk-16-lts-on-ubuntu-18-04-16-04-debian-9/>

for undo possibility install synaptic

for efficiency install dropbox

sudo apt update && sudo apt -y upgrade

sudo reboot

sudo apt -y install git curl wget libnewt-dev libssl-dev libncurses5-dev subversion libsqlite3-dev
build-essential libjansson-dev libxml2-dev uuid-dev

sudo apt policy asterisk

cd /usr/src/

sudo curl -O <http://downloads.asterisk.org/pub/telephony/asterisk/asterisk-16-current.tar.gz>

sudo tar xvf asterisk-16-current.tar.gz

cd asterisk-16*/

sudo contrib/scripts/get_mp3_source.sh

sudo contrib/scripts/install_prereq install

Problem with libjansson at this point

sudo ./configure --with-jansson-bundled

sudo make menuselect

sudo make

sudo make install

sudo make progdocs

sudo make samples

sudo make config

sudo ldconfig

sudo groupadd asterisk

sudo useradd -r -d /var/lib/asterisk -g asterisk asterisk

sudo usermod -aG audio,dialout chris

sudo chown -R chris.chris /etc/asterisk

sudo chown -R chris.chris /var/{lib,log,spool}/asterisk

sudo chown -R chris.chris /usr/lib/asterisk

Below is wrong

sudo gedit /etc/default/asterisk

runuser = chris ; The user to run as.

rungroup = chris ; The group to run as.


```
sudo gedit /etc/asterisk/asterisk.conf
```

```
runuser = chris ; The user to run as.  
rungroup = chris ; The group to run as.
```

I believe its should be this

```
$ sudo gedit /etc/default/asterisk  
AST_USER="asterisk"  
AST_GROUP="asterisk"
```

```
$ sudo gedit /etc/asterisk/asterisk.conf  
runuser = asterisk ; The user to run as.  
rungroup = asterisk ; The group to run as.
```

```
sudo systemctl restart asterisk
```

```
sudo systemctl enable asterisk
```

```
sudo asterisk -rvv
```

new terminal?

```
sudo ufw allow proto tcp from any to any port 5060,5061
```

install jack and pure data and sox through synaptic

```
sudo apt install python-pip
```

```
pip install mido
```

```
pip install rtmidi
```

**(for UBU 20 all sorts of problems will occur at this point - i never resolved this)
check this out <https://github.com/mido/mido/issues/145>
and note this -**

There are three different RtMidi packages for Python. Mido requires the one called python-rtmidi.

copy asterisk config files to new machine

```
/etc/asterisk/extensions.conf  
/etc/asterisk/sip.conf  
/etc/asterisk/musiconhold.conf
```

in order to install PD 50 you need

```
sudo apt-get install autoconf autogen
```

Problems occur at this point on some machines - I have no idea why

However on a more up to date machine although I accidentally installed PD in the downloads folder - will it matter it seems to work?

This is copied from the PD install instructions in the archive once expanded

Building Pd using the GNU autotools ./involves the following steps:

1. configure: detect & set library and platform options

2. make: compile Pd, associated tools, and resource files (ie. translations)
3. install: install the Pd binaries and resources onto your system

Overview:

```
cd path/to/pd
./autogen.sh
./configure
make
```

Start by opening a commandline shell and navigating to the Pd source directory:

```
cd path/to/pd
```

First generate the configure script and various build files by running:

```
./autogen.sh
```

Next configure Pd with the default options for your platform:

```
./configure

./configure --enable-jack

make
```

problems with PD Jack memory - seems to be fixed with

Set 'DefaultLimitMEMLOCK=128M' in:

```
/etc/systemd/system.conf
/etc/systemd/user.conf
```

and set

```
usermod -a -G audio theusername
```

set all files here to executable and editable by all

```
/home/chris/Dropbox/K6_primo/scripts
```

include the cereproc app tts callback

```
/home/chris/Dropbox/K6_primo/cerevoice_sdk/examples/python
and the cues text file
```

Pd extras etc in file preferences path

```
/home/chris/.local/lib/pd/extra/cyclone
/user/lib/pd/extra
/user/lib/pd/extra/Gem
/home/chris/.local/lib/pd/extra
```

or

```
/usr/lib/puredata/extra
```

```
file/preferences/startup
zexy
Gem
list-abs
nilwind
ggee
cyclone
```

some of these don't appear to be used anymore

there was a problem with list2 object in PD resolved once all the above were preloaded

Icecast and Darkice

tried installing from synaptic (this worked out of the box with UBU 20)

```
it seemed ok but launching the config script
darkice -c /home/chris/Dropbox/K6/darkice/darkice3.cfg
threw an error
```

```
DarkIce: TcpSocket.cpp:251: connect error
```

so i did

```
/etc/init.d/icecast2 start
```

and then checked the open ports on the router

Icecast and Darkice

```
sudo sh -c "echo deb http://download.opensuse.org/repositories/multimedia:/xiph/xUbuntu_16.04/ ./
>>/etc/apt/sources.list.d/icecast.list"
```

Step 2: Import the Multimedia signing key

You need to add the openSUSE OBS Multimedia signing key as a Trusted Key to your system.

There are many ways to verify this key, e.g. by a simple web search.

After downloading the key, you can run this command to verify your copy:

```
gpg multimedia-obs.key
```

```
sudo chmod 666 /var/log/icecast2
```

```
chmod 666 /usr/share/icecast2/web/status.xsl
```

change ip address to 63
(only if replaces existing system)

Problems with nautilus for dropbox - trashes connection

in grandstream control panel <http://192.168.1.10/>
- FXS port changed references from cloud to K6primo

in etc/asterisk
extensions.conf - changed all references to cloud to K6primo
sip conf - changed all references to cloud to K6primo

copied cerevoice_sdk folder to var/lib/
changed permissions in examples/basicctts/ to exec for audio.voice, basicctts, tts_callback, txt2wav

copied pd folder to var/lib/asterisk/
added scripts count_poems, miditoPd, ringbash, killring, ringmido to scripts and made executable

copied sounds/chris folder to var/lib/asterisk/sounds

Basic installation now working

Started Jack and Pd -fiddle to connect all operating ok

Options changed in Sox - assuming them to be deprecated code amended to
sox /var/lib/asterisk/sounds/chris/ttsoutput.wav -t raw -r 8000 -c 1
/var/lib/asterisk/sounds/chris/render/ttsoutput.sln

the N and -s options removed

Update Jan 2022 for UBU 20 options changed again in Sox entries in dialplan - extensions.conf
exten => _.,n,System(sox /home/chris/Dropbox/K6_primo/speech_audio/misdial.wav -t raw -r 8000
/home/chris/Dropbox/K6_primo/render/tts_callback.sln)

serious issues with permissions - i think.

resolution was to change the default account for all the asterisk functions to Chris thus

```
sudo usermod -aG audio,dialout chris
sudo chown -R chris.chris /etc/asterisk
sudo chown -R chris.chris /var/{lib,log,spool}/asterisk
sudo chown -R chris.chris /usr/lib/asterisk
sudo gedit /etc/default/asterisk
```

```
AST_USER="chris"
AST_GROUP="chris"
```

```
sudo gedit /etc/asterisk/asterisk.conf
```

```
runuser = chris ; The user to run as.
rungroup = chris ; The group to run as.
```

May 2024 - had to use sudo to get to asterisk cli

```
sudo asterisk -vvvr
```

finally got to CLI

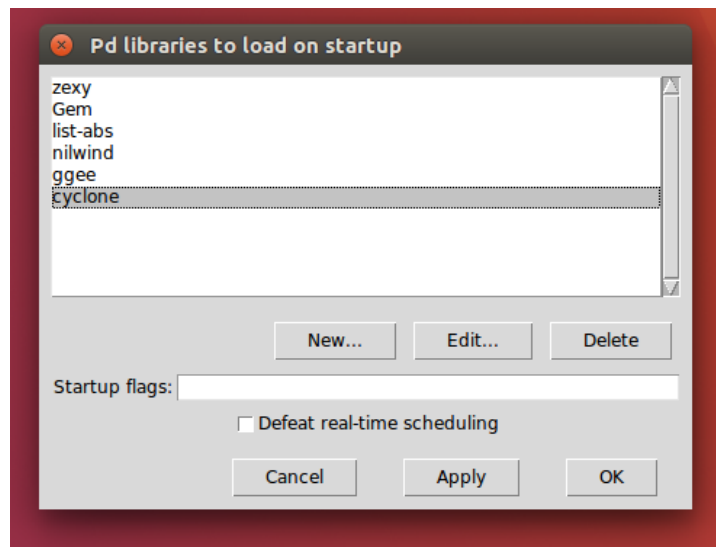
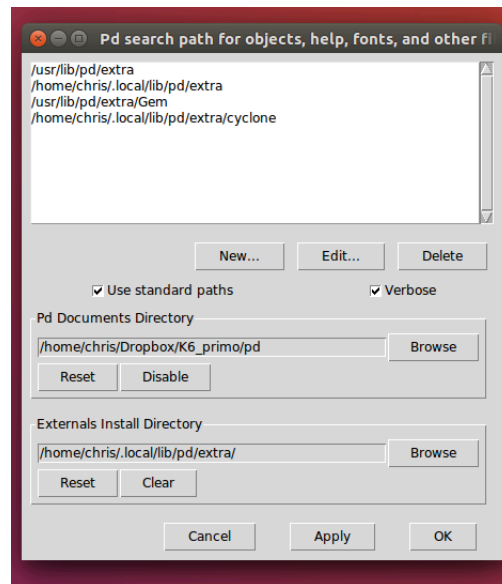
```
sudo usermod -aG audio,dialout asterisk
sudo chown -R asterisk.asterisk /etc/asterisk
sudo chown -R asterisk.asterisk /var/{lib,log,spool}/asterisk
sudo chown -R asterisk.asterisk /usr/lib/asterisk
```

or

```
runuser = asterisk ; The user to run as.
rungroup = asterisk ; The group to run as.
```

or

```
runuser = asterisk ; The user to run as.
rungroup = asterisk ; The group to run as.
```



Change default Python version to 2.7

How To Switch Between Alternative Python Versions Step By Step Instructions

<https://linuxconfig.org/install-python-2-on-ubuntu-20-04-focal-fossa-linux>

1. First step is to check what python versions are available on your Ubuntu system. To do so execute the following command:
`$ ls /usr/bin/python*`
`/usr/bin/python2 /usr/bin/python2.7 /usr/bin/python3 /usr/bin/python3.7 /usr/bin/python3.7m /usr/bin/python3.8 /usr/bin/python3-futurize /usr/bin/python3m /usr/bin/python3-pasteurize`
2. Next, check if you already have some python alternatives configured. To do so run:
`sudo update-alternatives --list python`
`update-alternatives: error: no alternatives for python`
 Currently the system has no python alternatives configured.
3. In this step we are going to set two Python alternatives, namely it will be Python2 and Python3 alternative. Execute the following commands:
`$ sudo update-alternatives --install /usr/bin/python python /usr/bin/python2 1`
`$ sudo update-alternatives --install /usr/bin/python python /usr/bin/python3 2`
4. Confirm that both alternatives are ready to be used:
`$ sudo update-alternatives --list python`
`/usr/bin/python2 /usr/bin/python3`
5. Change to alternative python version. For example to change to Python 2 execute the following command:
`$ sudo update-alternatives --config python`
 There are 2 choices for the alternative python (providing /usr/bin/python). Selection Path Priority Status

```
----- * 0 /usr/bin/python3 2 auto mode 1 /usr/bin/python2 1 manual mode 2 /usr/bin/python3 2 manual mode
```


 Press to keep the current choice, or type selection number: **1** Enter selection number. In this case to switch to Python version 2 we enter the **1** selection number.
6. Check your python version:
`$ python -V`
 Python 2.7.17 To switch to Python 3 alternative repeat Step 5 and enter the selection number appropriate to your desired python version.

Toward Resurrection

February 25, 2021

Categories: Production



I am working on the Easter broadcast. I have a proposed strategy for the production of the audio files to produce the musical equivalent of the range of voices already being exploited in the installation

1. live or recorded singing by me – very rare or never
2. Live or recorded singing by me processed by the TC Helicon vocal processor – i like the cheesy results
3. recorded musical extracts – already tried and tested but does bother me a bit there is something cheap about sticking in tunes – also issues about the rights – i think they sound better if they are ‘vintaged.’
4. midi versions of songs and classics – i rather like this its quite kitschy and eliminates the rights issues
5. midi versions of songs subsequently processed with the Yamaha XG editor – interesting detuning type results – needs to pass through a slightly complex arrangement of old hardware and software
6. audio to midi converted versions of songs and classics – this is very interesting as it creates a very flawed clone – i can use Melodyne audio to midi (in Pro Tools) to do it polyphonically or digital ear (old windows software) monophonically
7. and of course any old mixture of the above.

Proposed Palette

- me speaking live (Christopher)
- me speaking recorded (Chris)
- me speaking recorded shadowed by midi derived from audio to midi (Chris + midi)
- me recoded singing + TC helicon (Chris +Helicon)
- Cereproc voice (Kit)
- vintaged recordings of music (Music + distressed)
- midi versions of music (Music + midi)
- xg midi versions of music (Music + XG)
- audio to midi versions of music (Music + Melodyne)

Ardour Midi Note Value Edits

March 4, 2021

Categories: Production



Tidying – PD

April 11, 2021

Categories: Production



I have spent some time tidying PD – this has involved removing the number of different notein objects and consolidating then into just one with a select object to filter for the appropriate midi note numbers.

the relatively random allocation of midi note numbers to trigger different functions – (eg midi not number 9 will play the kiosk audio using qlist) had be flummoxed for a while but it seems to be stable.

Tidying The Monitor Mixer

April 11, 2021

Categories: Production



Update on the information below

It may be best to delete the monitoring stage all together as monitoring is possible via headphones using the UMC 40 interface. The complete stream is also sent via the UMC 4040 to my Mackie Audio interface

the routing using Jack, the UMD 404 and the hardware monitor mixer is also an awful mess.

To cut a long story short to hear a realistic mix of what is broadcast via ice cast and what is heard in the kiosk (without accommodating the physical acoustic) use headphones to monitor channel 1 only on the yamaha mixer and effect all mixing using the Akai APC mini. The routing is confused because of the proliferation of actual and virtual inputs and outputs in

PD

Jack

UMC 404

Yamaha Mixer

But critically in Jack all pure data outputs are routed to playback 1 of the UMC 404 presumably I did this to accommodate the live broadcasts

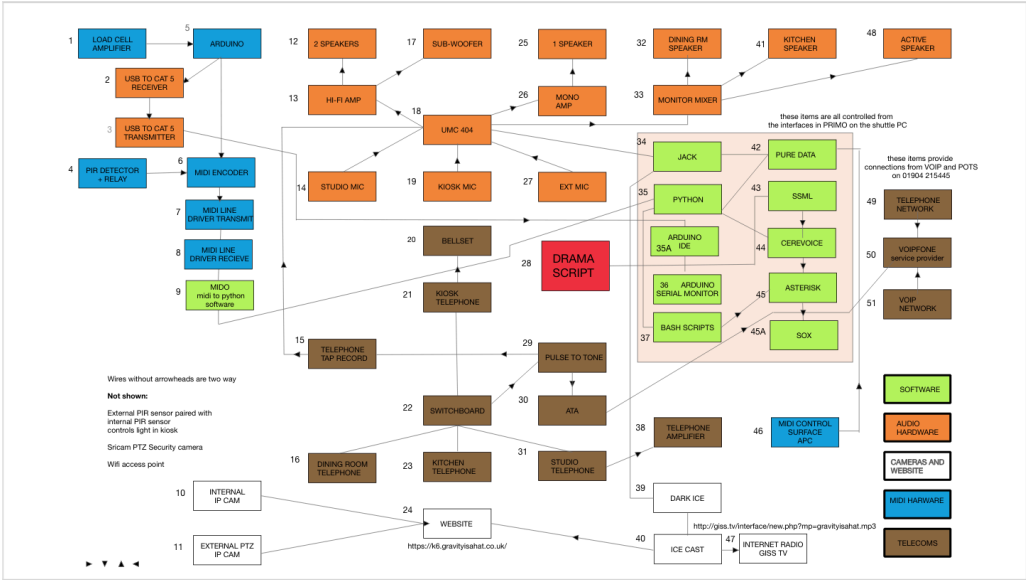
Technical Schematic

April 23, 2021

Categories: Production



Lacking in significant detail but helps me



map of the telephone box hardware and software (this needs detail and revision)

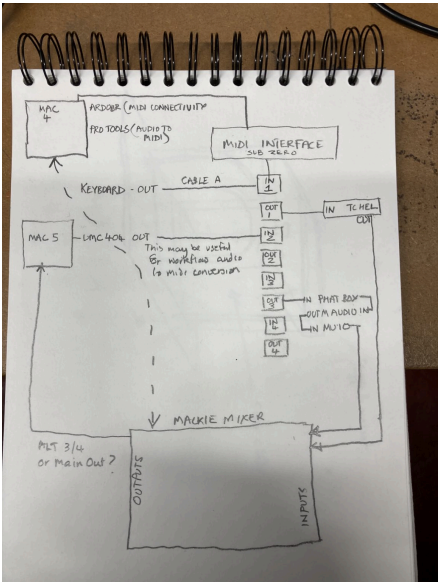
Midi Set Up For Ardour

June 10, 2021

Categories: Production

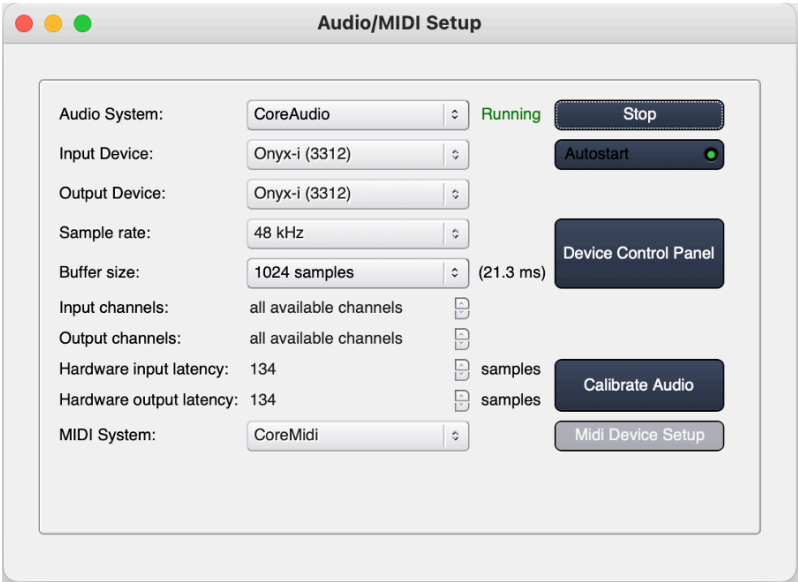


Updated schematic and notes

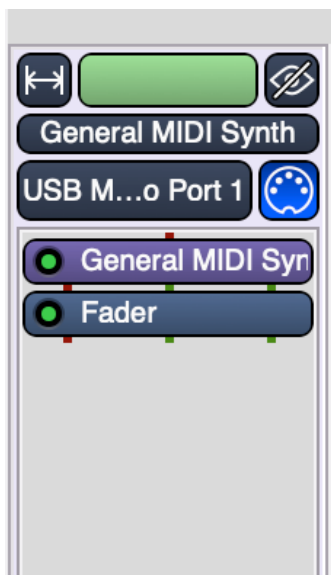


Ardour set up on Mac 4

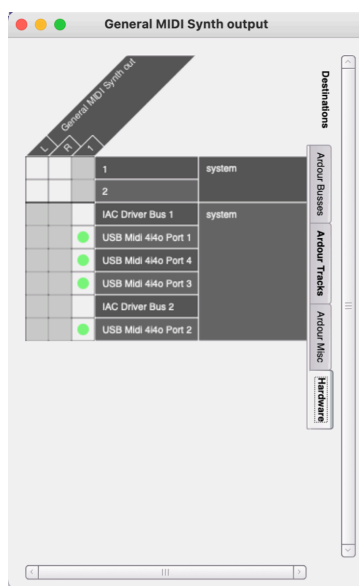
(Flashing single amber on Midi interface seems to mean it's not going to work)



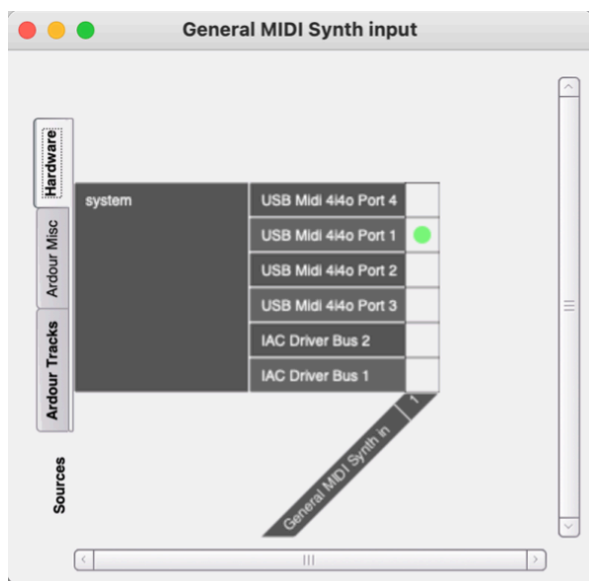
Core audio set up should show core midi



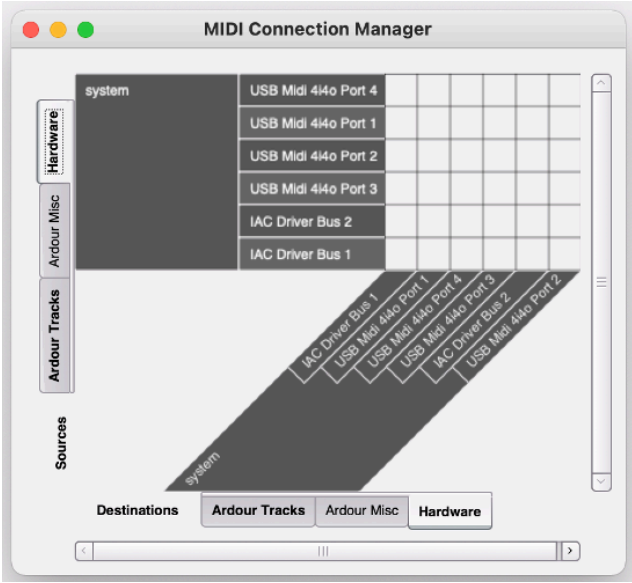
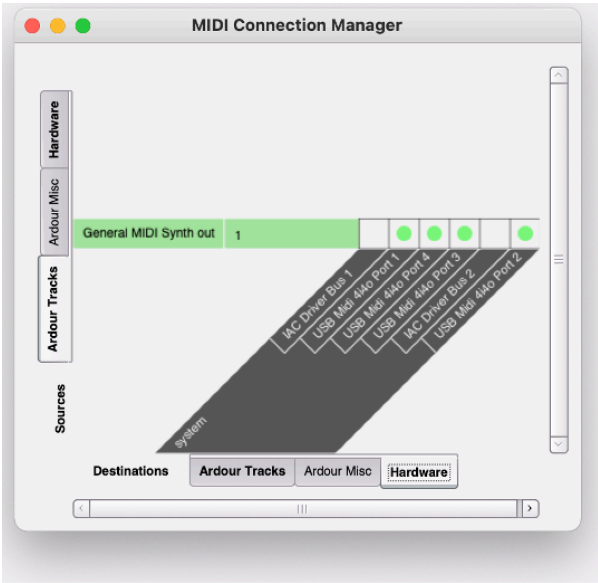
Blue means active – here USB port 1 is taking an input



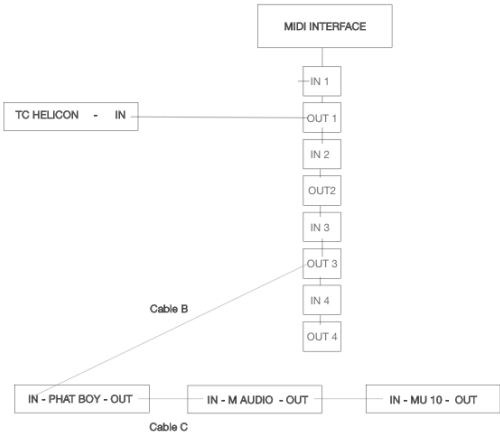
This is critical to send midi out to the interface – it is accessed by clicking on the synth name in the mixer and selecting outputs – nothing else is selected on any other tab



Input is more straight forward but I don't understand the flash at the bottom – just select the input port



These two screens are confusing – beware creating a mess by not reading the tabs properly

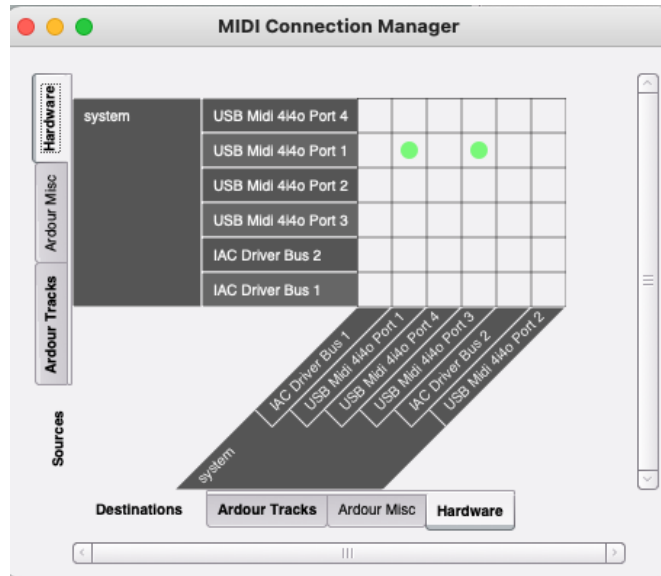


Turn on

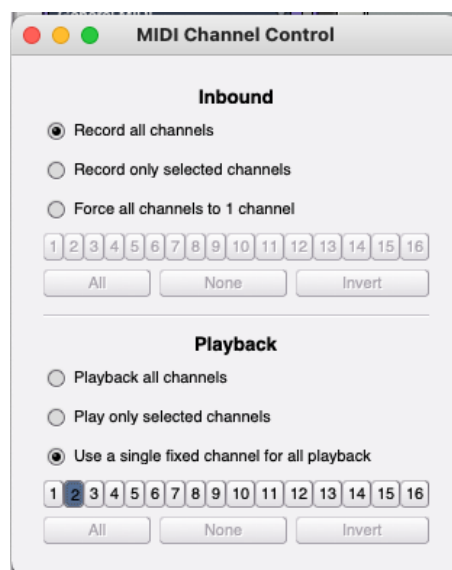
- Midi KB
- Phat
- MAudio

- TC Helicon
- MU10
- On PC start XG Edit or nothing will work correctly including mid routing perhaps because port 1 is routed to both Port 1 and Port 3

In Ardour – setting up midi tracks



- Add Midi track – set instrument to none
- In Midi Connections (or at mixer)
 - Sources/Hardware Midi Port 1 → Destinations/Hardware Midi Port 1 – this will send to TC Helicon
 - Sources/Hardware Midi Port 1 → Destinations/Hardware Midi Port 13 – this will send to MAudio
 - Sources/Ardour Tracks Midi Port 1 and Port 3 → Destinations/Hardware Midi Port 1 – this will send to TC Helicon and MAudio
 - In editor create midi region
 - Expand keyboard range
 - Create notes etc on track – this will be designated somehow as channel or part 1
- create duplicate track or new track – this will be designated somehow as channel or part 2
 - to play back in seprerate channels set – adjust channel selector



The Jack Patchbay And Connection Window

June 21, 2021

Categories: Production



This is a source of some confusion especially when combined with Pd's multiple virtual ports.

The best way of approaching this is to use the patchbay as a trigger for the connection window to update. set up the patchbay correctly activate it and the connection window will update. The patchbay does not connect and disconnect devices and channels it triggers the connection window to do so.

In the Primo Pd system there are (should be) one stereo output channel going to two separate speakers, one mono channel going to a centre speaker and one output channel kept for recording from the mic in the kiosk

Short Story Writing

January 23, 2022

Categories: research journal



Well how interesting your response is. It really makes me think. Thanks!

I think you might be trying too hard to decode significant meaning in what are absurd narratives. I agree there is some autobiographical content but it's not important. What is important is a sense of the absurd. Both protagonists live in worlds where conventional wisdom has no place. In TIN, to be constrained to speaking only one word is just fine whereas burgeoning language skills are punished – but there are no rules or societal norms to be gleaned just one individuals experience – it appears to make little sense and that's the point. Where there is a touch of autobiographical content is that I don't believe sense making is a necessary or useful process. In fact that's the point of both stories. The world of sticky whip is superficially a sci fi world. But it's silly because despite having inhabitants of exceptional size and ability it also has kids who play marbles on high streets with shops. It's like a collage of disparate parts that don't belong together but deceive the reader into thinking they do. I suspect because of your high level art analytical skills you are looking for a satisfying logical framework, something that binds everything together. You plumped for autobiography, somebody else might go for satire, somebody else might go for alternative world building, or even an environmental commentary, but the reason you need help is it is none and all of those things – it's a reaction against literary criticism that can't accept that some art is driven mainly by whim, chance and a desire not to reveal meaning but to explore the meaningless and the absurd.

It owes a bit to the following influences but is the ladybird book childrens version and does not take itself as seriously, nor can any great insights be gleaned from knowing that these may or may not have been at the back of my mind when the words popped out. Berio's sinfonia second movement where he messes with Mahler 2 because that was one of the scores he could access easily while on holiday – Charles Ives songs where he sets any old text from the profound to the utterly banal with equal enthusiasm. Kafka metamorphoses where the protagonist wakes up as a cockroach for no particular reason. Any Dadaist collage and of course John Cage's view that perfectly good art could arise from random processes as well as planned processes. I sometimes think my biggest influences come from the only two books that left any impression on me as a child – Winnie the Pooh and Bom the little Drummer because at one level these books are both reassuring normal but on another they are about animals and toys that talk and have lives and adventures, what could be more absurd.

Maria has got used to my stories and now expects them to not make a lots of sense. She has recommended Lincoln in the Bardo which won the booker in 2017 – I haven't read it but she says it's relevant.

Avani and George gave these two stories their most enthusiastic thumbs up which surprised me – they don't always – but I think your perspective is equally valid – it all depends on what the reader expects what they find satisfying and what they find frustrating obtuse – your taste for form and structure (denoted by your love of chamber music) is going to conflict with something that appears to have form but actually doesn't.

Thanks so much – such a great chance to explain myself – I will copy this email to my research journal if you don't mind – the uni academic gate keepers will love it. Xxx

Malcom McClaren And Other Melodramas From Pop

January 24, 2022

Categories: research journal



McClaren did a song based on Madame Butterfly – it has a melodrama treatment – also Diana Ross – Ain't no mountain high enough has a melodrama section.

Be more overt with the notion of a test facility open in the summer accessible by opening the door. Build a sign to put inside the box that invites people to test the facility.

As part of the test invite the user to continue the story on their mobile phone – provided the mic can pick them up they should be able to hear their own voices back through the mobile

Midi – Utility – Command Line

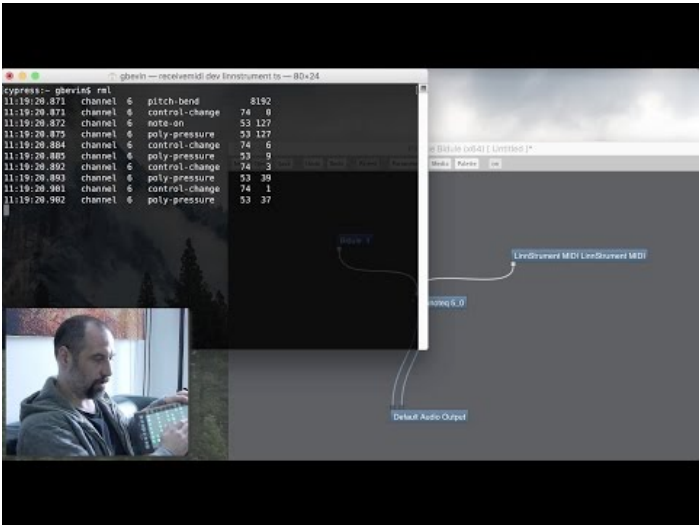
January 30, 2022

Categories: Technology



Command-line tutorial for musicians using SendMIDI and ReceiveMIDI (description has important note)

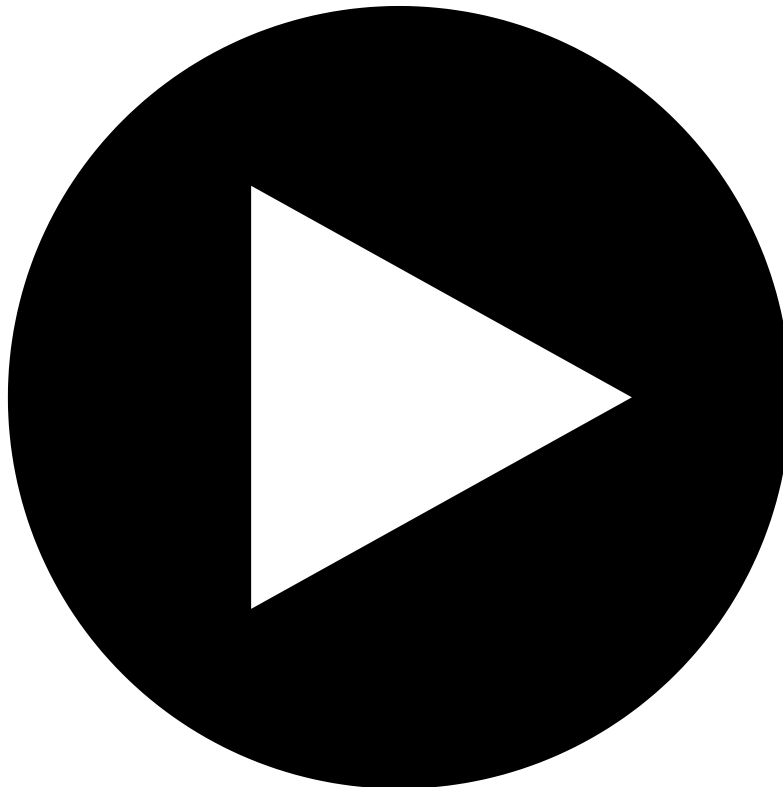
https://youtube.com/watch?v=_o1kg0lbetY



Tc-Helicon Videos

January 30, 2022

Categories: Technology



TC-Helicon VoiceLive Video 14 : Using MIDI for Harmonies & Control

<https://youtube.com/watch?v=5zslpF5qlos>



Themes/Media/Outputs

February 13, 2022

Categories: Technology



ventriloquism

computer voices

liveness

melodrama

autoethnography

poetry

stories

sprechgesang

music hall

randomness

opera

- Ives
- Berio
- Cage
- Radiohead

Amateurism

The phone box fantasy stops when I sleep in one at 14

Wizard of Oz, uncanny Valley, edison the realms beyond

Dada absurdity

Web radio

Joe brainard

The pieces Julie produced

- Possible hooks for research articles
- finding a new me in response to a cancer diagnosis
- A creative response to the covid lockdown
- My many voices
- Melodrama a different way to speak
- Telephone box theatre
- I thought I was going to die so I moved into a red telephone box
- Shielding may be over but I am occupying a red telephone box
- The uncanny valley and the realms beyond.
- Making art with ide software
- Yes I am still having to shield; digitally venting from a red telephone box
- Digitally ventriloquising myself. Auditory Melodramas from a red telephone box
- Telephonic art

Don't forget much of it is lies

Oblique strategies

Use my Gravityisahat blog as a source of material

Themes	media	outputs
	talking head video Still images ventrilloquism animation music speech computer speech text title cards	leonardo PADM

Wrong numbers and crossed lines

Webcam image of me in phone box

Being the voice in the machine

Art for my sake

Digitally speaking – confronting death and finding life through the medium of computer generated speech

Digital oration – melodrama performed by a computer generated voice actor

The red telephone box that talks a bit like me

My telephone box theatre – performing the self to myself

The covid thing brought about enforced auto ethnography

Start at Covid lockdown and work backwards

For conference presentations confinement in the phone box is the hook

Catz

Subjective eternity

Life writing

2nd camera in studio

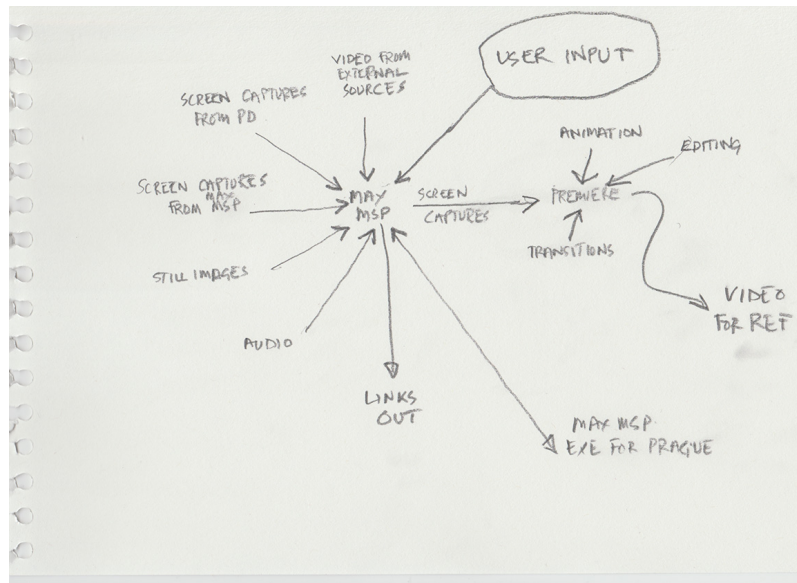
The big theme is the afterlife

The blank cards should say error

Research Architecture

February 17, 2022

Categories: research journal



My 'Living' Space Inside A British Red Telephone Box

February 25, 2022

Categories: research journal



Morphine makes the world white and furry – or at least that's my experience. Things take on the texture and colour of polar bear and crazy ideas seem sensible. So it was, that in 2014, when I was diagnosed with three incurable diseases (hence the morphine) and thought I was going to die, I bought a British red telephone box from Ebay, installed it outside my house and moved in.

Of course, 'I' didn't really move in but a version of me did, and this version may not have ever had cancer and isn't 64, wasn't a theatre director, now an academic or married with two grown up children and a feral cat.

I was too ill even to get out of bed. I live in North Yorkshire in England where it's cold and foggy, think 'Wuthering Heights' – occupying a cast-iron box would have hastened, what at the time, seemed inevitable. You see, to those of us transported overnight to 'Cancer Space' where every foolish belief that stops us going crazy – looking forward to things, getting better from illnesses, being one of the lucky ones, beliefs that have comforted us since we were six years old and found Smokie our cat under a bush in the garden stiff and cold with blood pouring from his ears and were told he didn't suffer so that was fine, these beliefs get stripped away by the daily routine of serving as a living chemistry set, perusing the shape of blood result graphs (in my case slopes down – good, slopes up bad) or trying not to worry when some new body part suddenly hurts. For us buying a phone box and moving in may seem like a reasonable thing to do.

The family stood by and watched. When someone is seriously ill more than anything you want them to get better, next you want them to do something positive like a marathon, eat seeds instead of burgers, do a degree or plant a tree. "If buying a phone box means he is doing something positive" they agreed, "it was worth it."

I could afford it because my aunt, who I hadn't seen fifty years (yes, I do feel guiltyish) died and left me a small windfall, enough to put some examples of unrestored K6 phone boxes within my financial reach. To those unfamiliar with these British design icons, they appear in most of the BBC classic series set at any time between 1930 and 1970. The occupants often wear fedoras, smoke cigarettes and are on missions to resolve mysteries – oh and its usually raining and dark.

My relationship with phone boxes pre E-Bay and illness was intimate and intense. As a teenager I had slept in one while on holiday with two friends called Stephen after we deliberately contrived to be locked out of our Youth Hostel. We sat on the floor adding to the discarded dog ends fantasising about an acne infested blond called Carol until our backs gave out and we had to crawl back to the hostel and beg for access to our bunks. We had a phone box in the village where I was born, near the railway station at the bottom of our road. It stank variously of trains, paint, disinfectant, and piss and was often out of order but when it was working it served as gateway to more lurid teenage conversations. These were peppered with newly adopted 'F' and 'C' words and booze, petty theft and Carol (poor Carol she didn't deserve this). As advancing confidence caused reality to overrun fantasy my more worldly friends snogged Carol in the box while I stood guard outside trying to interpret the muffled sounds of fumbling into images for subsequent recycling.

The delivery from eBay was due any day. The foundations looked like a tomb and the prospect of being interred beneath along with my aunts wedding ring (another bequest) had a momentary appeal, but my plan was for a different type of eternal presence one more fitting for a phone box, namely my voice.

I was leaving behind a loving wife and loving children – that was fine but what about the other stuff I had spent so much of my life trying to do. All the theatre and opera I had made, not very successfully for sure, but certainly enthusiastically. Once I had a voice and a space, a stage to shout from, and now I had a bed and a telephone box.

The vision was for a public telephone from which my voice would be broadcast forever. New material could be added before and after death even if I hadn't recorded it because the voice would be computer generated requiring only text in a word processor to produce the speech. 'Kit' as my voice was called would be able to say the things that 'Chris' real me, would never dare say. If anyone was offended, then just blame Kit. Passers-by would pick up the telephone handset and Kit (computer generated), sometime Chris (recordings of me) and just for fun and subject to being alive, 'Christopher'

(unseen me broadcasting live to the box from my house) would be heard seemingly from the “Realms Beyond.” (Thomas Edison supposedly built a machine to hear the voices of the dead from a place he entitled ‘The Realms Beyond’). Construction called upon my modest digital expertise as well as my passion for jumble sale bits and bobs. As a child I loved old radios, cameras and any old machines or broken electrical items and were I to have ever found one at the local village hall, while rummaging among the prams, mangles, bed frames and broken lawn mowers, my passion for vintage technology would have surely included old telephones. Now as an adult I had indulged my love of old technology with an academic career researching computer generated speech (voices like Stephen Hawking). Research that was notionally computer science but included a lot of of theatre and opera and old phones, bells, and switchboards.

Progress was slow. It required the creation, or was it recreation of my voice, something well beyond by technical capabilities so I asked my colleagues at Cereproc to do it. The result sounds just like me, but this ‘me’ is emotionally, well let’s say ‘disconnected’ perhaps fitting for someone dead. It allows for a good deal of tweaking to get it to sound better but I grew fond of its ‘vanilla’ voice, tweak free, its rather desperate attempts to communicate when it clearly has no idea whatsoever of what its saying. Best of all are its attempts to be funny which are funny but for all the wrong reasons. Along with the voice the box had to be restored and adapted. I wanted it to continue to look like regular 1937 phone box, but I had no interest in creating a museum exhibit and besides it needed a means of hiding the technology facilitating its hidden purpose, so authenticity went out the window (much to the distress of the telephone box heritage community). In addition, it required Bakelite and copper technology from the 1930’s to work seamlessly with digital technology from the 2020’s. No one appeared to have attempted anything comparable, so I had to make this bit up as I went along which resulted in lots of wasted effort, blind alleys and frustrated visitors who would complain that they heard nothing but crackling and some boring bloke talking. It required the physical wiring and a video link from my house so that I could control events and see and hear what was going on. It needed a lot of metal primer and a very special red paint. I fell off while painting the roof which put me back in hospital (I crawled to the cat flap and stuck my head in to call for help). On the way I significantly extended my knowledge of vintage telephone technology through a plethora of dusty manuals and vintage telephony forums peopled by similarly aged and nerdy enthusiasts and reached the absolute limits of my rudimentary and very messy interactive technology programming skills derived from years of tinkering and teaching digital art – but after 5 years in 2020 ‘The Red Telephone Box that Talks a bit like Me’ was ready to speak and more importantly I was still alive and I was ‘doing something positive.’

Then Covid struck.

I doubt that a better incubator for the virus exists than a confined space that requires the participant to speak into a seventy-year-old plastic funnel held inches from mouth and nose for just sufficient time to get a serious and well targeted dose from the last person to have done the same thing moments before.

So I closed the box and lost my audience just as I was ready for my/his first performance.

And now my theatre, opera house, platform and performance space, my ‘doing something positive,’ restored by me, engineered by me, programmed by me, directed by me and starring me has just one audience member, me.

And that’s just fine.

‘The Red Telephone Box that Talks a bit like Me’ is a space from which I can be myself while at the same time being somebody else. Maybe that ‘Me’ doesn’t have cancer. Isn’t 64 years old and running out of time. As someone held in check by illness, who sometimes feels incapacitated and useless I can run riot from my box, reinvent myself as young and rebellious, vulgar and outspoken, poetic and funny, be anybody I like, and say what I like, at least for the duration of a telephone call.

Because of COVID the only person listening to me is me. It’s turned out even better than I planned because I really couldn’t give a toss what I say to myself. Afterall I can just blame Kit.

The Red Telephone Box that Talks a Bit like Me is here

<http://k6.gravityisahat.co.uk/>

History And Stories

February 25, 2022

Categories: research journal



There are several stories playing out in The Red Telephone Box that talks a bit like me.

The first one is about my interest in acting and performing and whether a computer generated voice can ever be a decent actor. The second are a series of personal stories many of them related to family or childhood, some true, some embellishments of the truth and some just made up. The third are some failed attempts to create some sort of continuous narrative that glues the various episodes together. For example this attempt.

<https://k6.gravityisahat.co.uk/2019/06/05/operator/>

So far as of today 21st May 2021 I haven't alighted on a solution in which I am truly confident. Some of these attempts are documented in the blog so readers may find the sequence of events rather confusing as I change my mind and try other solutions without necessarily flagging up that I have done so.

I have copied the following from the few posts that are focused on issues other than technology.

Given the persuasiveness of the box itself (often referred to as an iconic architectural object representing Britishness) a sensible objective is to provide a setting in which the telephone box itself is displayed to full advantage and thus provides a credibly realistic as well as atmospheric experience. Happily, it is set in a relatively remote place, in some respects a likely location for a phone box, outside my house on the side of a quiet no through road with five adjacent houses. Given its remoteness most users will probably stumble upon the installation when out walking as cars are rare.

This is a walk-up installation in which the user is encourage to participate by the ringing of the telephone bell as they pass the box. If this feature is not switched on (which it frequently isn't) the user can choose to enter the box voluntarily and lift the receiver. Written instructions are provided to direct the user to dial zero for the operator and on so doing they are given spoken instructions about the basic operation of the telephone. Many younger users are unfamiliar with dial techniques and the need to proceed slowly and patiently. This has proved to be a persistent problem particularly as children tend to be the predominant users.

For older users there are probably nostalgic associations with this type of telephone box. I have speculated that for some, despite it not being a blue police box, there could be an association with Dr Who and time travel which could also be useful. Some of the first scenarios I developed played on these qualities.

The box is for kissing, for emergencies, for good news, for bad news, for smoking, for pissing, for sheltering, for waiting.

Dialing a number on the phone connects to a computer version of my voice. The voice was created by my good friends at Cereproc who are world leaders in this field. The method requires me to create recording of many hours of specific sample sentences from which all the sounds required for the production of intelligible speech using my voice can be extracted. The TTS Text to Speech Synthesis technology then has to search for the right sounds and assemble them into words and sentences. It produces a slightly unreal version of my natural speaking voice. It certainly sounds like me but the emotion is largely gone and the inflection may sound rather false. Most clearly it doesn't understand what it is saying. This is a limitation of all TTS systems at present. While it is possible to create a decent human like effect using a machine the machine has no awareness of the meaning of the words it is delivering. This can result in small silly mistakes or more serious chunks of unintelligibility but it always results in unbelievability, it simply isn't a credible person speaking, hence so far at least, TTS has not caught on for audio books. In theory any text can be passed to it programmatically and it will attempt to render it in my voice. In addition to the computer voice, recordings of my real voice are used, some subject to significant digital signal processing to produce weird and wonderful effects. Finally, and only for specific scheduled performances, unbeknown to the user, my live voice can be added to the mix.

The voice was created by Cereproc. Cereproc (2018) *Welcome to CereProc / CereProc Text-to-Speech*. Available online: <https://www.cereproc.com/>

These dynamic capabilities are not exploited in the installation yet.

It is a 1937 red telephone box known as kiosk no. 6 (K6) designed by Giles Gilbert Scott (Coltman, 2018) located in a quite North Yorkshire hamlet near the river Fleet. It was purchased from Ebay and restored by me. The telephone, model number 232 (Britishtelephones.com, 2018) looks and behaves like a normal telephone of the 1930's, it can ring, it has a dial, it has a dialing tone etc. Both the telephone and the box are iconic examples of industrial design much celebrated by the heritage community and in the case of the red telephone box, by the British tourist industry. I cannot deny the fact that these qualities acted as a draw for me. Tangible industrial objects, engineered to last, using materials like brass and Bakelite lend themselves to reimagining in the way that many modern similar artefacts do not. Items such as these have given rise to Steampunk and the current vogue for decorative objects upcycled from vintage industrial detritus. Like any stage, the theatre in which it is situated, the world it inhabits beyond the proscenium arch is part of the experience. In this case the telephone box is both stage and theatre.

The telephone box, let's call it 'Chris', is part vocal cenotaph, part gramophone, part ventriloquist and part sound installation. Just occasionally it is a telephone and sometimes it pretends to be an oracle. It merges four ideas. The test devised by Alan Turing to validate whether a machine can successfully impersonate a human, known as the Turing Test (Turing, 1950). A method used in Human Computer Interaction (HCI) research in which a machine interface is controlled by unseen human operatives, known as The Wizard of Oz method (Kelley, 2018), the unrealized machine proposed by Thomas Edison for communication with the dead in his paper 'The Realms Beyond' (Edison, 2015) and a fascination and fear I share with many others for ventriloquism (Connor, 2000).

The motivation for the installation erupted when my cancer diagnosis in 2014 seemed drastic and I felt the need to leave some sort of memorial to myself and a record of my obsessions. Happily, that urgency has abated but the desire to bring the project to fruition has not.

The choice of a speech-based installation was inspired by my career in the vocal arts, mainly as an opera director, my research in computer generated speech and Auslander's observations on Liveness, (Auslander, 1999). In particular whether liveness (a quality of real-time live performance) can be faked in a non-live performance e.g. a recording. Knowing how to fake those qualities that make a performance feel 'live' was an aptitude I had seen in many professional actors. Of course, this met a different requirement from my telephone box as the performances were already live and the need was to create a sense of real-time spontaneity, of making every performance seem as if it is the first, but I speculated that the methods I saw exploited could be tried on non-live platforms such as computer voices. In particular I had become greatly enamored by a method of speaking Shakespeare's verse that John Barton (Barton, 1984) and Peter Hall (Hall, 2004) had taught. The method required the actor to set aside factors such as character, situation and motivation and scrutinize the structure of the verse and prose, in particular observing line endings and full stops. This was a rigorous procedure required significant discipline on the part of the actor and needless to say some would rebel against its constraints, however those that persisted were often surprised when they discovered that the underlying 'musical score' of Shakespeare's verse, if followed, could produce some remarkably 'lively' results. I had the idea that this procedural method of creating this liveliness in speech was something that a computer, with no capacity for motivation or real emotion, might be able to replicate. Of course, there turned out to be so much more to it than that however a sense that the answer to convincing, emotional, characterful computer-generated speech could be something other than just aping human speech, still interests me.

Auslander, P. (1999) *Liveness: performance in a mediatized culture*. London, New York: Routledge.

Barton, J. (1984) *Playing Shakespeare*. London: Methuen.

Britishtelephones.com (2018) *Tele No. 232*. Available online: <http://www.britishtelephones.com/t232.htm>

Cereproc (2018) *Welcome to CereProc | CereProc Text-to-Speech*. Available online: <https://www.cereproc.com/>

Coltman, R. (2018) *The Telephone Box / Kiosk No 6*. Richard Coltman. Available online: <http://www.the-telephone-box.co.uk/kiosks/k6/>

Connor, S. (2000) *Dumbstruck: a cultural history of ventriloquism*. Oxford: Oxford University Press.

Edison, T. (2015) *Thomas Edison: The Lost Chapter • ITC Voices*. Available online: <http://itcvoices.org/thomas-edison-the-lost-chapter/>

Hall, P. (2004) *Shakespeare's advice to the players*. London: Oberon Books.

Kelley, J. F. (2018) *Where did the term Wizard of Oz come from*. Available online: <http://www.musicman.net/oz.html>

Turing, A. (1950) Computing machinery and intelligence. *Mind*, VOL. LIX. No.236., 433-460.

Interaction with the artwork has proved annoyingly problematic. I did not expect users to find a telephone dial difficult to use. I should have predicted this given the technology is now 30 years out of date. Many younger people have never 'dialed' in their lives. I should have taken account of the fact that when it was invented the British Post Office precursor of General PO produced short information films showing people where to stick their finger in the dial mechanism. In my box the knock-on effect of user error created a perfect storm of system failures. The technology of the 1930's, the user and software of 2018 struggled to come to terms with differing expectations of system speed and responsiveness causing much bad-tempered slamming down of handsets and walking away moaning about having heard nothing.

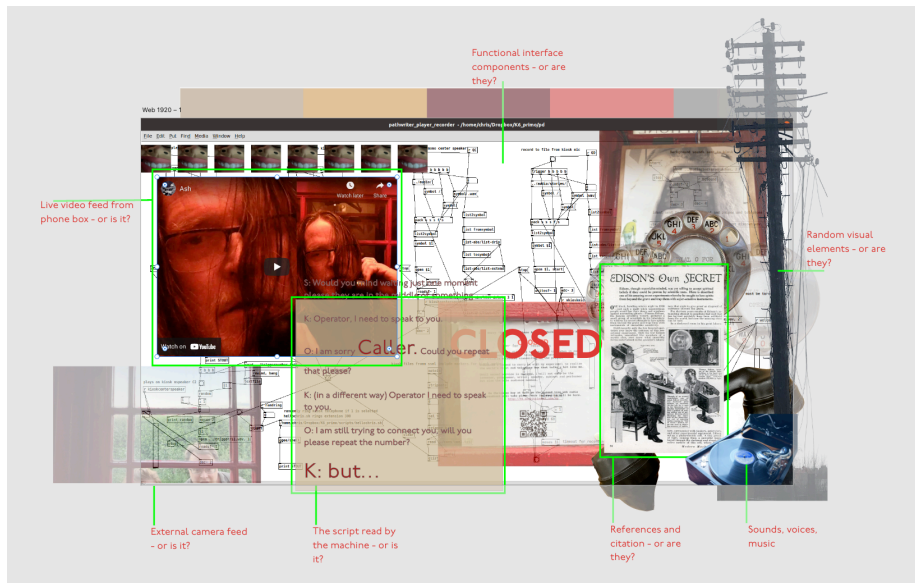
My predicament is that I want the telephone box to continue to remain a bit of an enigma or a mystery to those that encounter it. If I were to 'prop it up' it with copious operating instructions some of the mystery would be undermined. It would become an arcade game or a gadget. Something to be solved or competed against. I am hoping to provide the somewhat debased concept of 'an experience', as something the user can discover for themselves. Obviously this throws up issues of usability on the assumption that the less information the user is given, the more errors they are likely to make and the less satisfactory the experience will be. Conversely too much information overwhelms the user with the same result. The unwillingness to wait for things to happen, analogue electro mechanical technology being so much slower than digital, was initially a problem, requiring the judicious use of audible messaging such as 'please hold the line' or wait '3 seconds.' That said, even when they are given instructions users tend to ignore them, so I have reconciled myself to the inevitable slamming down of handsets. The time in rehearsal has helped solve some of these problems but by no means all.

I need to figure out how apply the theatrical adage of keeping 'bums on seats.' A surreal, alienating piece of audio experimentation stuck in a country lane in North Yorkshire does not keep people entertained long enough to justify the notion of a public theatre and while I have no unalterable desire to serve a public, I also don't have a desire to bore them rigid, show them how clever I am or simply frustrate them. Thus, the content of the material spoken, the script if you like, has gone through many, many rethinks and is still being rethought as I write this.

Visual For Desktop Application

March 21, 2022

Categories: research journal



Ubuntu 20 Upgrade

April 24, 2022

Categories: Technology



Notes for the upgrade to UBU 20 in Jan 2022 as I remember them – details are in the asterisk reinstall afresh

Asterisk MOH relies on the icecast server running. The MOH config file will need updating for UBU 20

The two servers PRIMO and UBU20 use two different ports for the ice cast server- check that the various files that contain references to ports 8000 or 7000 are updated

Network – clashes occurred in NAT open ports with some open ports allocated to more than one IP – open ports for PRMO and UBU20 must not be duplicated

The right version of Python (2.7) must be installed a made default for any of the cereproc stuff to work. and Pip2

The second monitor resolutions had to be updated.

GISS TV appeared to need to simple reset of the interface to work

Could not figure how to install KX studio

QJacketl – refused to allow the connection of the UMC 404 midi ports – I am not sure why then it did

Mido was a nightmare until Pip 2 was installed

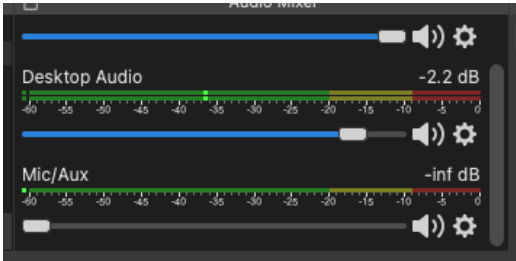
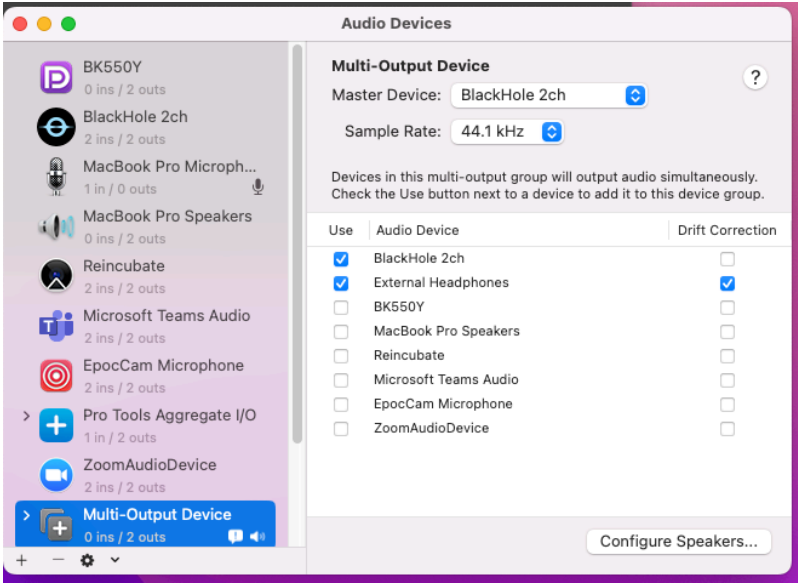
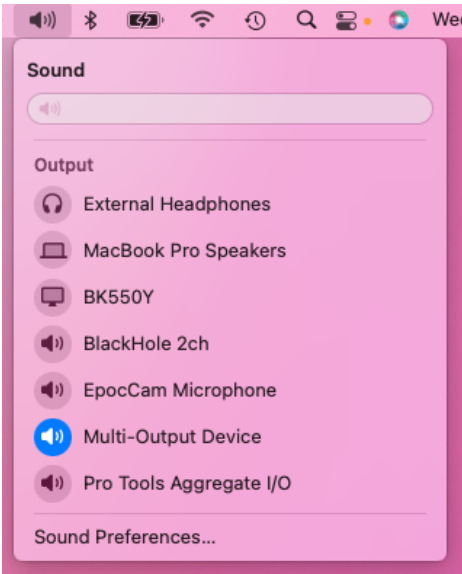
Sox had some deprecated options

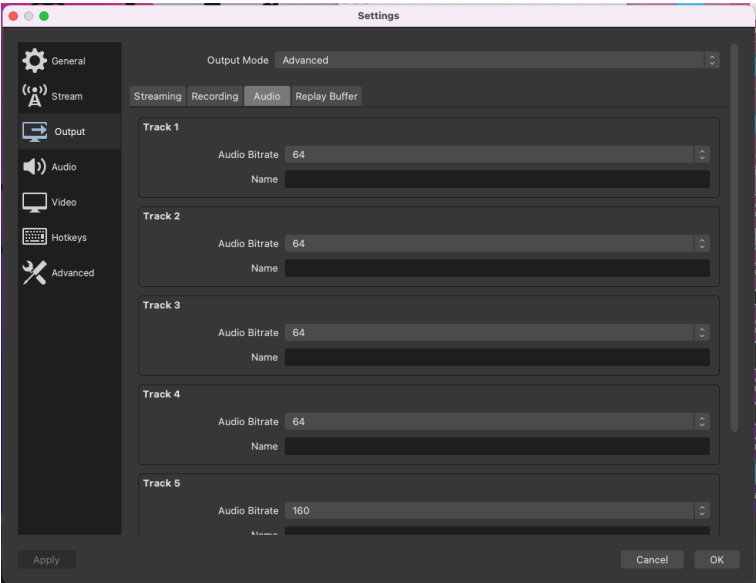
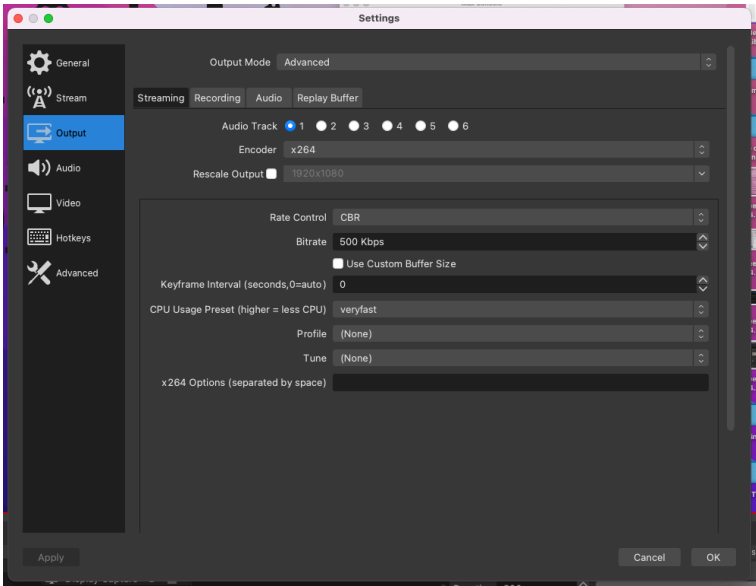
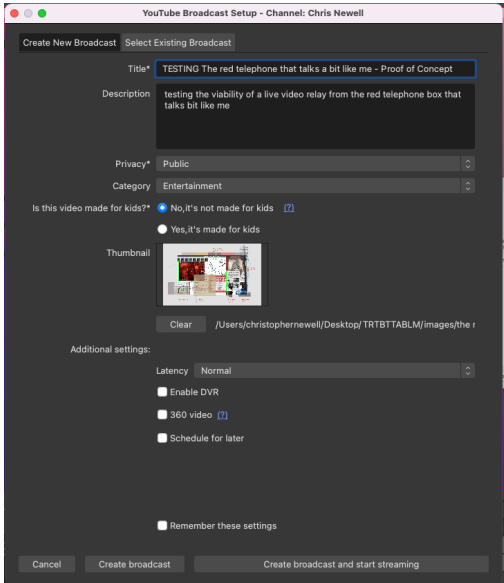
Jack memory lockdown problems resolved somehow

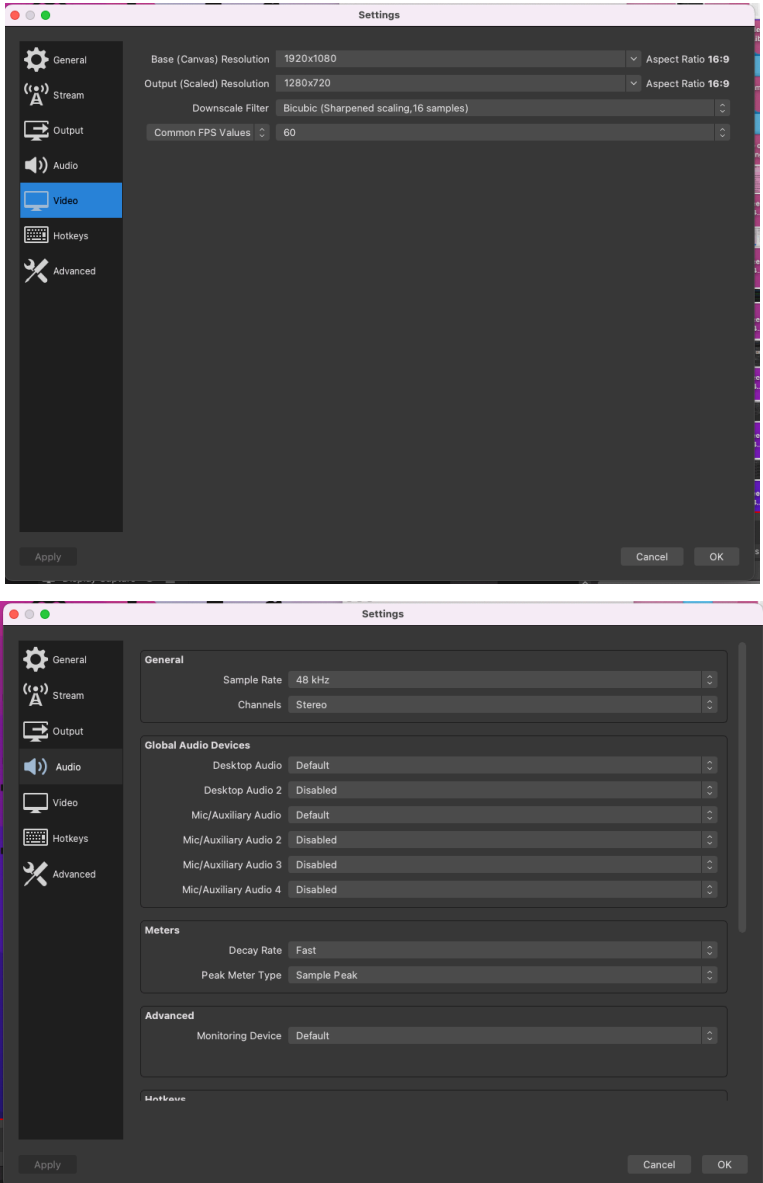
OBS Live Streaming

April 27, 2022

Categories: Technology



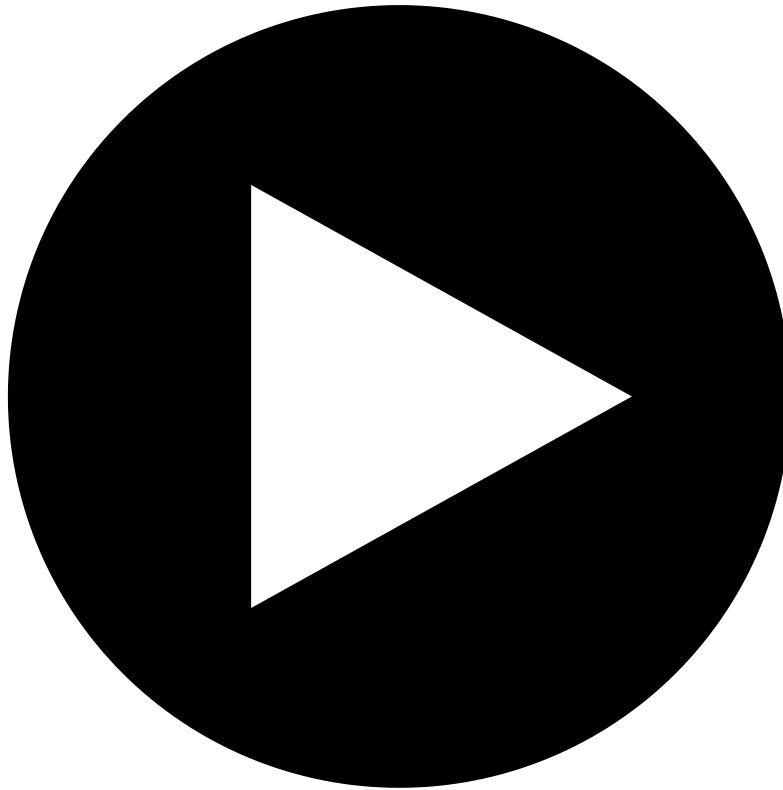




Connect OBS To Zoom

May 10, 2022

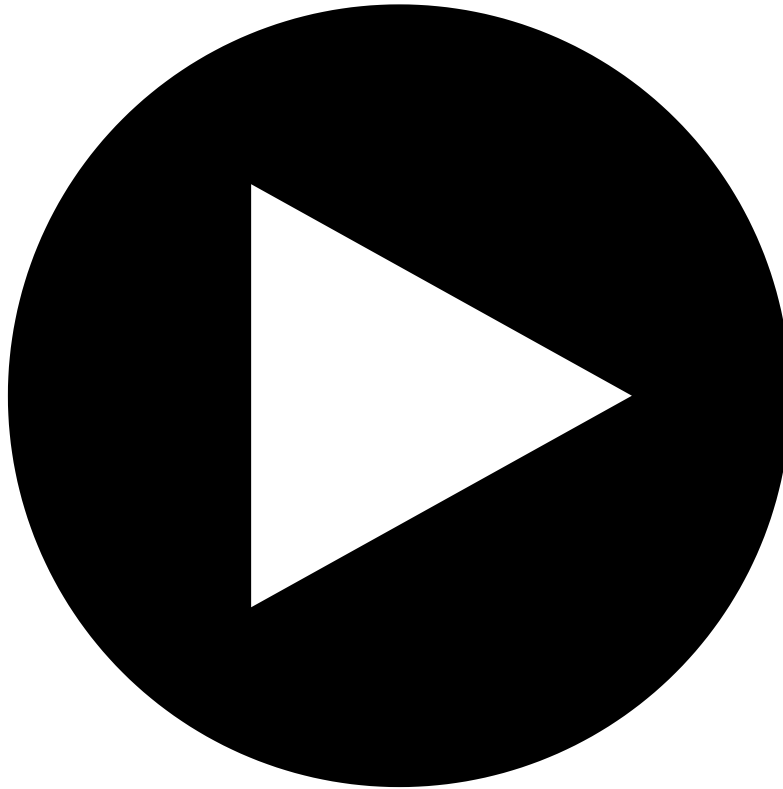
Categories: Technology



Connecting sound from OBS to Zoom or Teams

<https://youtube.com/watch?v=AGMxJSjw7Bg>





Connecting sound from OBS to Zoom or Teams

<https://youtube.com/watch?v=AGMxJSjW7Bg>



Set sound device to multi output

In obs – desktop audio set to blackhole 2 ch

Then go to advance audio features – cog on audio mixer channel

Set desktop audio device to monitor and output

Set any other audio devices to monitor and output

Obs preferences set monitoring device to Blackhole

Start virtual camera

In zoom set Obs black hole as microphone

In zoom turn on original sound

In zoom select OBS virtual camera as camera

Hig Res Test Of Conference Presentation

June 13, 2022

Categories: Production, research journal, Technology



The Red Telephone Box That Talks A Bit Like Me

<https://youtube.com/watch?v=V15LxcP4j6Q>



Toward A New Multimedia Presentation

September 19, 2022

Categories: Production, Technology



I am using OBS to freely mix my media.

Here is a video of Proof of Concept in OBS



2nd POC TRTBTTABTM

<https://youtube.com/watch?v=YsuzRQURIOU>



and here is a further proof-of-concept – recordings of recordings of recordings



Ext 101

<https://youtube.com/watch?v=D9ZmQlk8Iwg>



drawing live on the screen



take3

<https://youtube.com/watch?v=CSSibW0rjJE>



Ardour Midi Setup Again

November 30, 2022

Categories: Technology

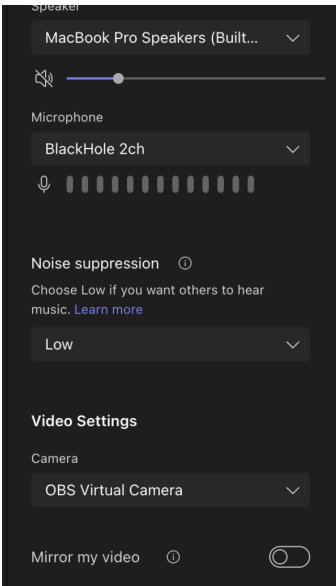
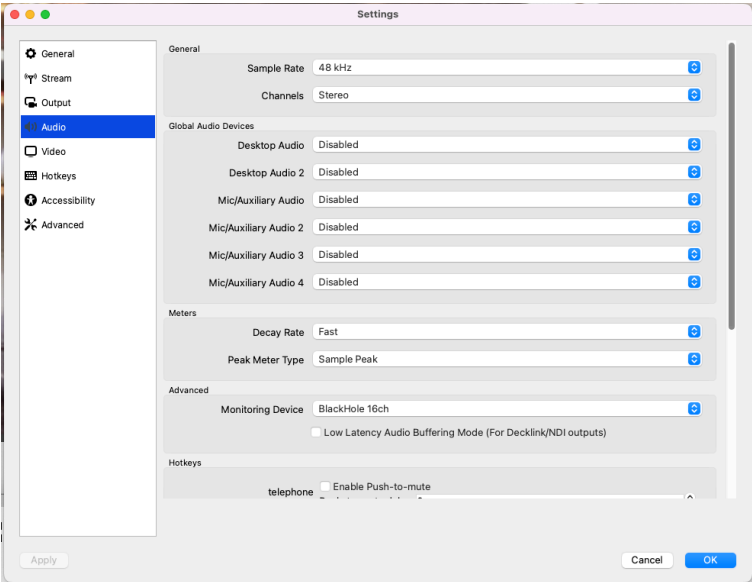
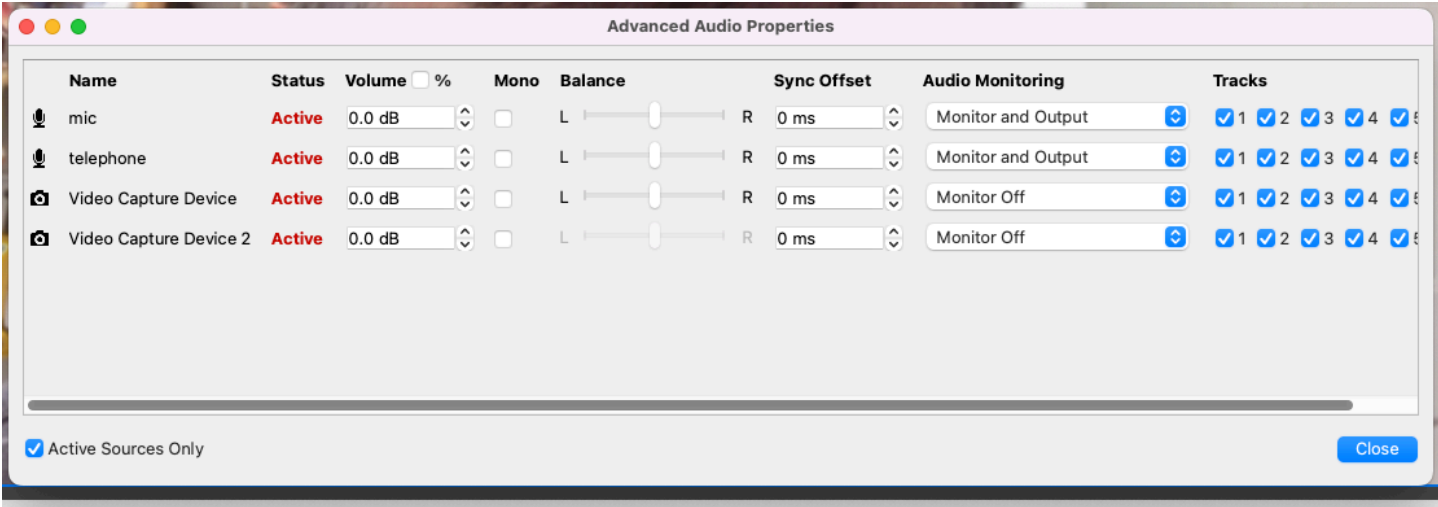


[Ardour-set-up-on-Mac-4](#) Download

OBS To Teams

December 1, 2022

Categories: Technology



Hardware And Software Configuration For Recording And Editing Audio And Midi

December 4, 2022

Categories: Technology



Mac 5: Editing and Cerevoice capture– **Adobe Audition** on Mac 5 can be used for digesting all the outputs from the Mackie mixer for final edit. In addition it can receive direct input from the **K6 system**. It can also be used to capture CerevoiceChris from Word to Audacity.

Mac 4: Midi sequencing (exclusive digital connectivity to **Mackie**) – Mac 4 uses **Ardour** for midi connectivity to the midi chain – It can also be used to connect to **TC Helicon**

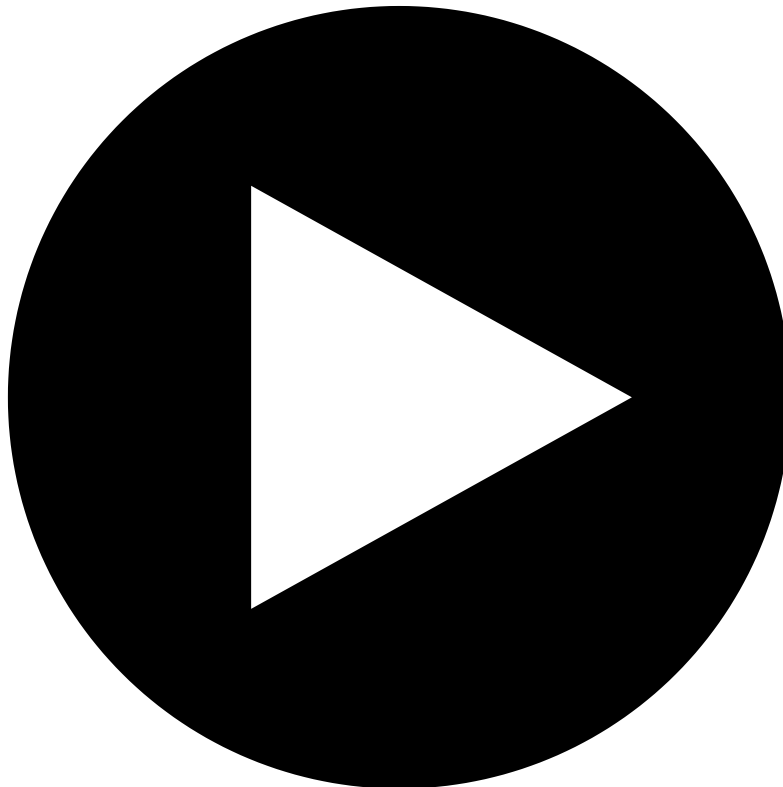
Mac 3 Midi processing. Mac 3 only used for the **Yamaha XG Editor** and connects directly to the **MAudio** interface.

The only use of **Protools**, available on Mac4 and Mac 5, is for the audio to midi converter.

AntiSanta

December 15, 2022

Categories: Technology



AntiSanta

https://youtube.com/watch?v=2CJ6oX_QDb8



Midi Inflecting Audio With TC Helicon

January 26, 2023

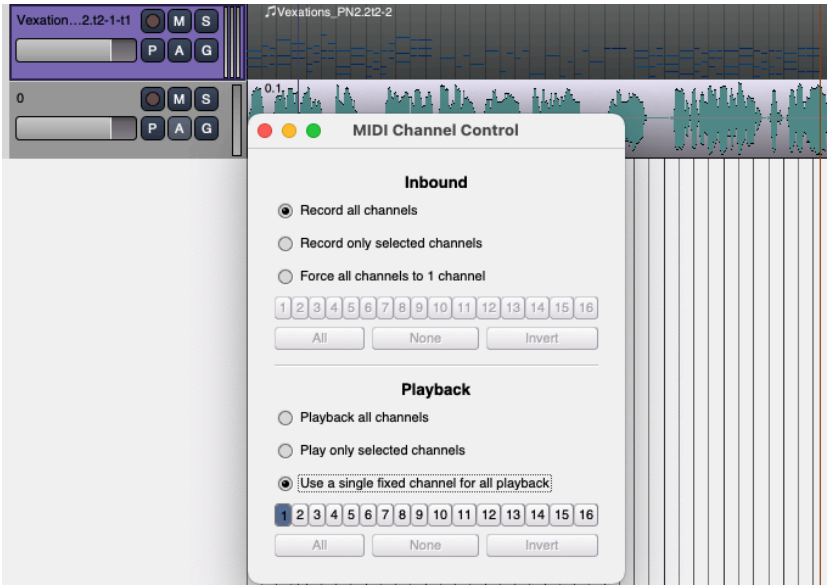
Categories: Technology



The Tc helicon is connected as the penultimate component on the midi chain before the tone generator MU 10 and after the MAUDIO interface and XG editor

The MUI0 takes an input from the TC helicon midi through

Make sure the Tc Helicon midi receive channel (see editing screens on TC helicon below) is the same as the midi output channel from the Ardour midi track.



From the midi track used to inflect the audio strip out all program commands and other extraneous MIDI instruction using a list editor MidKit

The audio track to be inflected will be sent from Ardour to channel 15/16 on the Mackie

Channel 15 must be muted and sent to Alt %

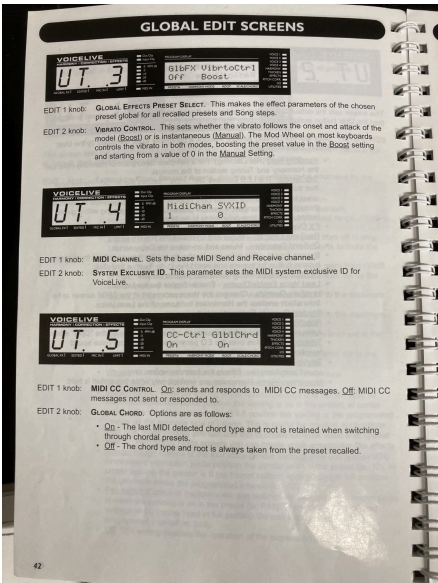
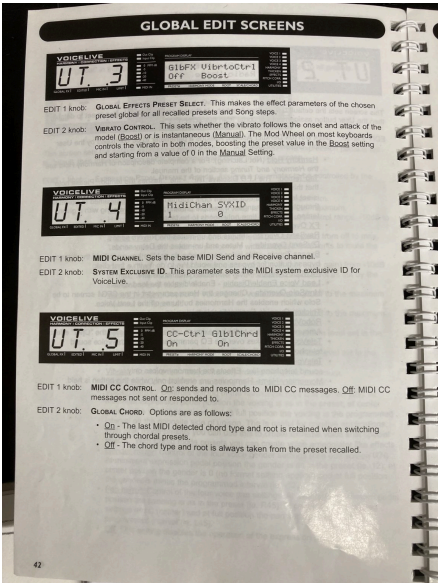
TC Helicon Audio in must be connected to alt %

TC Helicon Audio out can be sent to any channel on the Mackie

MU 10 can be sent to any channel on the Mackie

The MU 10 will continue to respond to all midi commands

The TC Helicon will only respond to note on/off and ignore commands from the Phat boy or XG editor unless adjustments as shown in the TC Helicon manual are done – these appear not to make a difference as it is set to respond to CC messages – not sure whether CC messages are sent form the XG editor.



Midi Controllers Connect To Ardour

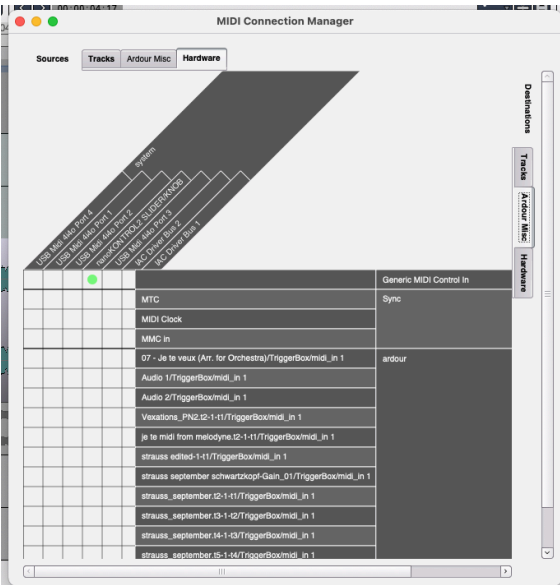
June 11, 2023

Categories: Technology



is not as specified in the online manual – <https://manual.ardour.org/using-control-surfaces/generic-midi/midi-learn/>

you do not need a midi patchbay app – you just need to figure out the connection in the midi connections dialogue box



Subzero Mode Switch

December 2, 2024

Categories: Technology



this may or may not be correct but you can press the button and different things will then operate differently

[midibox_mb44_usb_4i4o](#) Download

Tricky Things When Connecting Up External Midi

December 2, 2024

Categories: Technology



The subzero box has a mode setting that sets the various through settings best leave it on boot default.

If you a want to send keyboard into mul0 use input device record in the DAWand select the KORG.

Switching items on and off or unplugging can confuse things. Probably best to turn on subzero first then turn on other devices.

Don't forget you can bypass the xg Editor by pressing midi through on FireWire 410

I think the mini midi keyboard is redundant as the korg one can do the business.

The TC Helicon voice processor does not require a midi out and is not part of the main chain

Behringer 1810 Curiosities, Questions And Other System Issues.

December 13, 2024

Categories: Technology



Most significantly monitoring make sure it's set so that all 8 input channels are monitored then you will hear what's being sent in. The balance between monitoring what's coming in and what's going out from the pc should also be set.

Pro tools does not seem to work comfortably with the behringer 1810 in particular it miss identifies the output ports. This may be rectifiable (will explore). Have explored – reset audio io to default worked but should be checked as it may revert.

In order to send audio to the tchelicon my solution is to sync protocols and Ableton – protocols sends the audio via the um 202. Ableton can capture the resulting helicon processed audio. Either protocols or Ableton can send the midi. Is there a better way of doing this and sending the audio to be processed by the Tc helicon from Ableton but excluding it from the mix (will have to figure this out). I don't think there is as I think it results in a a feedback loop with audio out signal intended for the helicon coming back in after processing to Ableton.

The tc helicon resets if you send it certain commands. I have now set it to filter them out but this may not work.

For convenience audio from the CD player, record deck, cassette player, K6 and DEC TALK can be passed from the Mackie via sends into channel 1&2 of the Behringer. Obviously this extends the signal path but maybe useful. I can continue to use the Mackie as an all round mixer for playing records and things.

Don't forget you may have turned the volume of the Mu10 down to exclude it from the mix but it should be possible to exclude it using the DAW.

The MU 15 is internally the same as the MU 10 and could replace it.

The XG 1000 Card has the extra sounds and could use PCDIF to send into UM 1820 if 32 channels or extra instruments are required

Dec Talk – Stephen Hawking’s Voice

February 2, 2025

Categories: Technology



Well not really but pretty close.

I am playing with these synthesisers again after a long break. I have two of them, they are heavy and cumbersome and need lots of peripherals but they are outstandingly versatile. I am not too sure what to do with them this time but I have spent the last week reacquainting myself with how they work. I thought it would be useful straight off to make the documentation available as a trawl through social media has revealed a small pool of fans out there who might appreciate ready access to this extremely comprehensive documentation.

[EKDTC01IN002InstallationManual](#) Download

[EKDTC01OM002OwnersManual](#) Download

[EK-DTC01-RM-003](#) Download

Installing CereprocChris On Windows

March 17, 2025

Categories: Technology



Install Microsoft Visual Studio 2008 from DVD.

The cerevoicechris for windows installation package is in onedrive CrevoiceChris_11025

You will need to restart for it to become operational.

Other files need to be placed where my app expects them to be. This list is subject to revision when i test this.

In the root C:Drive

Folder called PAT – containing just about everything

Folder called -frank – containing everything Frank related

In One drive documents – folder called visual studio 2008/ with a folder called projects 2 which will have S2P3Beta VB file

I am not entirely sure which of these folders were created in the installation of the Visual Studio – hopefully this will all become clearer once I have tested the set up properly

Connecting Midi Devices– MU10, Voicelive Etc

March 17, 2025

Categories: Technology



Procedure for recording external tone bank MU10 and other procedures

Incorporate Phatboy into midi path MAC (Behringer 1820) USB Ardour Midi Track (routed to external hub USB Ch 3) ↓ HUB MIDI ↓ PHAT BOY MIDI ↓ M AUDIO MIDI ↓ MU10 MIDI ↓ (AUDIO OUT FROM MU10)	Manipulate tone bank with XG Works – maybe possible to do this using control surface in Live PC BOOTCAMP (M AUDIO 410) FIREWIRE XG WORKS (AUDIO IN M AUDIO) ↓ ARDOUR audio track record	To use the voice live library software PC BOOTCAMP (M AUDIO 410) FIREWIRE To connect voice Live Library USB MIDI connect cable to TC Helicon Voice Live On cable Midi out to Midi in TC Hel Midi in to Midi out TC Hel	To infect audio from mic or audio with midi notes values MAC (Behringer 1820) USB Ardour Midi Track (routed to external hub USB Ch 2) ↓ HUB MIDI Ch 2 ↓ Midi in to TC Helicon Turn of MU10 audio if not required – set PR 9 Midi notes
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