THE ECHO

ASD
ASSOCIATION *of* SOUND DESIGNERS

Noise at work legislation

ALSO IN THIS ISSUE
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Sending large files over the internet

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The Association of Sound Designers has five levels of membership:

PROFESSIONAL DESIGNER
For anyone making a full or partial living from theatre sound design in the UK

PROFESSIONAL MEMBER
For anyone working in the UK theatre sound design industry

CORPORATE MEMBER
For any company working in the theatre sound industry

ASSOCIATE MEMBER
For anyone interested in theatre sound design

STUDENT MEMBER
for all students aged 16 or over on a full time post-secondary course of study in the UK

Entrance criteria exist for each category. Please visit http://www.associationofsounddesigners.com for more details. Different benefits exists for each membership category, but the key benefits of the professional member categories include:
• Appearing in a public directory of sound designers
• Regular news updates relevant to the sound design community
• Private discussion forums to discuss sensitive topics
• Use of an ASD approved rider to append to their contracts
• Access to our private Wiki knowledge-base on sound design
• Training sessions organized by the Association of Sound Designers
• Printed magazine every 3 months

THIRD PARTY BENEFITS
We also have partnered with a few companies to provide additional benefits to our members
• 100 free sounds from Soundsnap (worth $99 USD)
• 1 hour free consultancy and 15% discount on accountancy services from KBSP Chartered Accountants
• 50% off membership from Stage Jobs Pro
• 30% off premium accounts from SoundCloud

soundsnap   KBSP CHARTERED ACCOUNTANTS   sjp stagejobspro   SOUNDCLOUD

Editorial

Welcome to issue two of The Echo, and four months into the establishment of the Association of Sound Designers.

We were very pleased with the launch at PLASA, with many visitors to our stand and a lot of press coverage. It was also a good opportunity to introduce ourselves to some of the other professional associations in the industry. Since our launch, we've joined up over 140 members – a real cross-section of people across the industry. Our members' names are listed in the rear pages of this magazine, along with the logos of our corporate members. We also ran our first ASD exclusive training seminar which was a great success, and held our first Christmas Drinks social, which will become a regular event on our social calendar and a great way to catch up with people, and to meet some new people too.

One of the questions which has come up a few times is, why is professional membership of the ASD currently limited to UK Theatre professionals? This was a decision taken early on in the discussion period of the ASD's formation to avoid biting off more than we could chew! As a fledgling organisation staffed with volunteers we're not able to properly represent the interests of the theatre, film, TV, game audio, installed sound, acoustics, and the numerous other industries in which sound designers work. Likewise we're not yet even able to represent the interests of theatre sound designers on a global scale, let alone the global interests of all the aforementioned industries. We took advice from the ALD on this as well, who similarly started off as a UK theatre orientated organisation, but as they have grown, now represent over 700 members working across multiple industries and continents.

Hopefully we'll reach a similar scale in the future but we're a little way off world domination yet! In the meantime, anyone can join as an associate member and receive almost all the benefits of the other categories of membership, voting rights and board eligibility being the key difference. The more interest we receive from people working in other industries,

the sooner we will attempt to diversify our focus, given the resources to do so.

Having spent the last couple of years with our efforts focussed on establishing the ASD and gaining a membership, we are now re-tooling ourselves to the process of running the organisation, and how it might best serve our members. To that end we'll be emailing all our members shortly with questions about where we go from here. We have a range of questions which we'd love to hear your opinion about. For the ASD to succeed we depend on hearing your feedback so that we can better shape it to your needs.

Gareth Fry
Chair, Association of Sound Designers

ASD
ASSOCIATION *of* SOUND DESIGNERS

Showcase: Pippin

Pippin
Menier Chocolate Factory
Opened 22nd November 2011
Sound Design by Gareth Owen
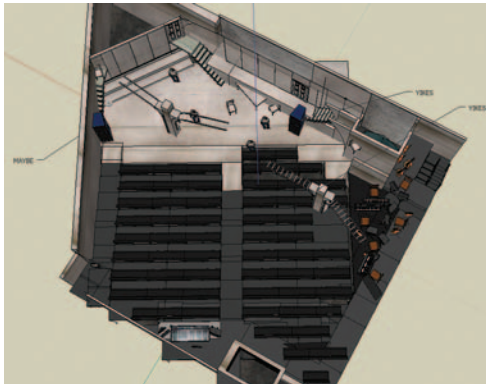**Directed by Mitch Sebastian**

No.1: Dave Palmer
No.2: Niki Hulme
Associate Sound Designer:
Olly Steel and Russell Godwin
Assistant Sound Designer: Charlie Simpson
Production Engineers: Chris Mace and Adam Rudd
MD Tom Kelly

Main PA Position

PAUL ARDITTI

Gareth Owen is a major force in musicals' sound design, with a monster CV and nominations for Tony and Olivier awards, in spite of being only 32 years old. His first musical sound design was for a touring production of Godspell, which he admits himself was something of a baptism by fire, "It's one of those things where you make so many mistakes that you can't believe you didn't get sacked!" he jokes.

Clearly Orbital, who were supplying the sound equipment for the tour, were impressed, as Godspell marked the beginning of a fruitful relationship between Gareth and the south London sound hire company. Gareth worked full time for Orbital for six years, before eventually leaving to go freelance.

Pippin is Gareth's seventh show at the Menier Chocolate Factory, so he already knew how to get the best out of this small, asymmetric but electrifying space. However, it was very clear from the outset that this musical was going to be very different from the previous six.

First presented on Broadway in 1972, where it ran for nearly 2000 performances, Pippin is a strange musical. Boasting a book by Roger O. Hirson, and music and lyrics by Stephen Schwartz, it tells the story of a young prince from the 900s, whose attempts to find happiness and meaning in his life are stage managed by a character known as Leading Player, and a group of actor/performers. Pippin does not really exist in any particular period, and certainly feels more like a product of the 1970s than of the Middle Ages. Some characters speak directly to the audience, and a sense of theatrical unreality is evident throughout. The original, deliberately anachronistic choreography is by Bob Fosse, and much of it has been recreated in the current production. Just about everything else, though, is very different.

Director Mitch Sebastian and designer Timothy Bird have taken Pippin in an entirely new and radical direction. Set in a Tron-like world of projected scenery, hi-tech animated graphics, internet porn, and 21st century computer gaming, Pippin, performed by angel-voiced Harry Hepple, apparently experiences life from within the multiple levels of a computer game. The video projection, which seems to cover every available surface of the theatre, is impressive, particularly when it interacts with the live performers in skillfully synchronised sequences.

The Menier Chocolate Factory is an odd-shaped auditorium, and the off-kilter orientation of the Pippin set and seating within it means there is little or no symmetry to the room. I asked Gareth how he'd approached designing a sound system for such a space. "I'd love to say that all the speakers are positioned in the optimum position to achieve perfect uniform coverage for every seat in the house. The reality is that in a space like the Menier I have to put the speakers wherever I can get them. Due to the louder nature of the show we ended up needing rather large PA stacks. As the staging and set design meant we couldn't get the PA in front of the cast we ended up building a split system to put the band on either side (but often behind) the cast. We then flew separate speakers above the front edge of the stage with just vocals in them."

Gareth is right when he says the show is loud. Which is not to say that it doesn't sound great. It does. Gareth explains the thinking behind the volume: "Initial production meetings with the creatives and producers made it quite clear that they wanted the show to push the limit in as many ways as possible, volume being just one of them. I tend to find there is a knife edge when it comes to volume and the closer you get to the edge the harder it gets to keep everyone happy. In the end you just have to be brave and hope you don't offend too many people."

Another issue with a loud show is that the need for gain before feedback in the vocal system significantly affects mic choice and placement. Gareth uses DPA 4066 booms throughout, which give great vocal clarity, but have a significant visual impact too, particularly in the tiny Chocolate Factory auditorium. I asked Gareth whether this had been a problem: "As the show is set inside a computer, all bar two of the characters are supposed to be computer avatars. To this end the costume designer has deliberately made a feature of both the mic heads and the mic packs - indeed the SK5212s

are worn in the centre of the back of the head and are covered in rhinestones! The only two characters who are supposed to be real are the Leading Player and Pippin. Matt Rawle, who plays the Leading Player, has a big black beard to hide the black 4066 in, leaving really only Pippin who is an issue. To be honest, if I thought I could get the required level out of a hair line mic, I would, but with the level of the show, it's simply not possible."

Before I watched the show, I also spoke to No.1 Dave Palmer and No.2 Niki Hulme, who look after the mix and radio mics respectively. They told me to watch out for a moment near the end of the show, in which Pippin apparently pours petrol over his head, then sings his last number holding a lit cigarette lighter in front of his face. Just before this sequence, the DPAs are swapped, in a very quick change, for a Countryman B6, which offers greater resistance to water. (This is a trick worth remembering – Scott Lehrer did the same thing on South Pacific for the song I'm Gonna Wash That Man Right Outta My Hair, which is sung under a shower.)

The loudspeaker system is mainly Opus, with some d&b Eos in the delay system and Eos and E3 for surrounds. The PA is designed around a left/right pair of Opus AT1000s and a central Opus PSD800. I asked Gareth why he made

these choices: "As a general rule I am a big fan of d&b - I know how to get what I need out of it, but when it comes to the Menier I find the hifi nature of Opus works really well. A bit of eq is required but it's more to do with room resonance and interaction between boxes than correcting the sound of the speakers." I have to agree: as well as the clear vocals, Gareth's design and Dave Palmer's mix reproduces the band magnificently. The drums are particularly controlled and punchy, which is tricky in such a small space.

The seven-strong band is squashed into a purpose-built but extremely cramped loft, accessible only by a ladder and a trap door. I asked Gareth how much he had to do with its design and construction: "The whole set was 3D-modeled in VectorWorks, so we got 3D lumps of musicians and their equipment and moved them around the various spaces until we fitted everything in. It was a struggle - at one point there was a debate about putting the orchestra in the dressing rooms! Keeping the drums under control in such a small space is key – we wrapped them up in Studiospares Acousticheck tiles, in an attempt to avoid what I call the DIY effect - the drum kit sounding like someone is putting up a set of shelves in an adjoining room."

There's a great deal to Pippin that the audience

does not see or hear. An enormous amount of skill has been put into synchronising lighting, projection and sound effects. Gareth uses a CTR Electronics CSC Show Control system to make sure everything locks together. "24 channels of click playback and another 16 of sound effects run from a dual redundant CTR Electronics CSC Show Control system", he says. "There are eight static projectors as well as a pair of DL2 moving head projectors which basically wrap you up in VT. Eight Catalyst machines drive it all with three GrandMA consoles doing whatever it is that lighting consoles do!"

Gareth lists the five different methods used to sync the various pieces of equipment: "Firstly, the MD Go button fires a clicktrack on CSC which then streams SMPTE and MIDI Time Code to all relevant departments. The video dept. sends Midi Note Ons to the sound dept. to fire sound effects in time with video events. There are nearly 200 of these events. The LX dept. sends MIDI Program Changes (rather than Note Ons) to the sound dept. when there is a lighting cue but no video. The sound dept. sends Midi Show Control to the video or LX depts., to sync video with visual sound cues. Finally, video with embedded audio is sent to the sound desk in the traditional manner. This is used where pre-recorded videos of people talking are playing on screen."

CSC is clearly working very hard on Pippin. I asked Gareth why he chose CSC over other show control options: "I was always a big fan of the G-Type and Akai S6000 combination and, if I'm honest, dragged my feet somewhat prior to moving on to computer playback. Having tried Ableton Live, QLab and SFX, I have found, going against the QLab tide, that I consistently end up coming back to CSC. I find it extremely powerful with regard to timecode and show control, and it is also eminently capable of simultaneously handling click tracks and sound effects."

I asked Gareth to tell me more about how he

went about producing the sound effects on Pippin: "I tend to approach the creation of sound effects much like making a cake - the basic sound effect files form the ingredients which are then mixed together and treated to bake the final article. Over the years I've bought a number of collections from both Sound Ideas and Hollywood Edge and these form the basis of the sound effects collection from which I source my ingredients. If I need something specific then I will download the relevant sound from one of the online shops - SoundDogs is a favourite. I then use Adobe Audition to create what I need to fit the production."

Like many musicals, Pippin has its fair share of clicktracks. "The clicktracks are a mixture of vocal and orchestra," Gareth explains. "The orchestral clicks were added simply to bolster the size of the real orchestra and the vocal clicks are used to cover sections where the cast were doing quick changes, or running around backstage in the dark."

One aspect of the show I personally take issue with, and was very keen to hear Gareth's view on, is the noise from the cooling fans in the ten scenic projectors. One reviewer referred to 'the roar of the projectors overhead', and I have to say that I found this immense level of masking noise very disturbing during the show. Whilst most of the music is obviously a lot louder than the background noise, the noise inevitably covers a lot of the quieter musical detail, much of the vocal subtlety, and - from my seat at least - a lot of the painstakingly produced sound effects. It is dispiriting to note that whilst the visual concept in this production is extremely sophisticated, sound and music is left to fend for itself with a noise floor so high that much of the aural detail is wiped away. The sound designer is left with only one tool – volume – to salvage what he can from this reduced dynamic range. "The noise of the projectors was probably the hardest thing to deal with from a sound point of view," admits Gareth. "In notes one night I equated it to trying to focus a gobo with the house lights on - you can make it work but it's really tough to nail the detail. On previous projection shows we have used various cases and bubbles to reduce the acoustic volume of the projectors but in the case of this show there simply isn't the headroom to encase the units without messing up sight lines and lighting shots."

One way or another, it's clear that an amazing amount of work has been necessary to get the show on in only four days of tech. Gareth is the first to say that sound design is a team effort: "This show simply wouldn't have happened without associate designers Olly Steel and Russell Godwin, and assistant sound designer Charlie Simpson. They put in literally hundreds of man-hours creating sound effects, ambience tracks, soundscapes and clicktracks, and then programming it all to work as one big cohesive mass. Sound No.1 Dave Palmer averaged five hours sleep over the course of the two week fitup / tech / preview period, and sound No.2 Niki Hulme managed to make the radio mics work even after the leading man had emptied two gallons of water over his head. Production engineers Chris Mace and Adam Rudd got the whole system installed, working, and fully integrated with both lighting and video in just two days. They did all the comms, cue lights and CCTV too! Blitz have been so fantastic, I couldn't praise them more. Chris Jordan [Head of Sound and Theatre at Blitz Communications] has the most wonderful attitude, and has a wonderful ability to walk through the door with soothing words and sage advice just at the right moment!"

Finally, I asked Gareth what he'd like to achieve in his career henceforward: "I've always wanted someone to make a piece of equipment called the "Gareth Owen Signature Edition". You know, something cool like a mixing desk or a microphone - ideally not a speaker cable."

Olly Steel programming sound effects

Noise at work

THEO HOLLOWAY

**"I've paid for them little red lights too, you know..."
Sound Designers and the Control of Noise at Work
Regulations 2005**

Doing "Noise at Work" training isn't exactly a dynamic, death-defying way to spend your time – you're just trying to get across the basic features of some fairly unexciting legislation without coming across like a deranged foam earplug salesman. However, on one occasion recently, I found myself stopped in my tracks by an innocuous question - "Doesn't this all come down to the sound designer – surely it's their responsibility to ensure that the product that they're supplying is safe?"

Well, I suppose... if the set falls apart, you'd blame the designer, and if lamps started falling out of the grid, you'd want to talk to the LD – why should it be any different for the sound department? I countered that the front-of-house level of shows sometimes isn't the choice of the sound designer (hence the title of the article –supposedly said by a broadly-known London impresario), and many of the other things that can produce dangerous levels of noise in a theatre aren't under the control of the designer either. The discussion continued from here, but I had to admit that there was a lack of clarity about what exactly were a sound designer's responsibilities in this respect...

This, I think, is where the Association of Sound Designers comes in! Speaking to other sound designers, they agree that there is a discussion to be had, and that the ASD is the right forum for it. I'd like to use this article to kick off that discussion, and pull together some links on the subject that may be of interest, and then ask everyone if they wouldn't mind sharing their thoughts on the subject through the medium of an online survey. A special page has been created on the ASD website which contains a link to the survey, and eventually the results: http://www.associationofsounddesigners.com/noiseatwork

The basics
More detailed descriptions are contained in the websites linked to on the ASD website and below, but here's a brief summary: the Control Of Noise At Work Act became law in 2005, with an exemption for the entertainment industry that ran out in 2008. Like most Health & Safety legislation, it boils down to how you quantify a risk, and the limits placed on those risks. Once you get those two bits, you're 90% of the way there.

Noise exposure is always the exposure of the individual, not an environmental measurement - we're concerned with two values:

PEAK NOISE LEVELS
We don't care about the number or length of peaks – even if you hit 142 dBC peak once on the

button at the end of the megamix, that's your peak.

WEEKLY PERSONAL NOISE EXPOSURE
This is derived from a rather fiddly formula, and can be thought of as an average, but is also sensitive to the length of time worked. A given value means "exposure equivalent to being exposed to this level constantly for a 40-hour working week".

There are three limit levels for each of the two values:

LOWER EXPOSURE ACTION VALUE
(85 dB exposure, 130 dB peak)
If you reach either of these, you need to start treating noise as a credible risk in the workplace. You'll need risk assessments, and your staff will need hearing checks, optional hearing protection, and training to make them aware of the risks

UPPER EXPOSURE ACTION VALUE
(87 dB exposure, 135 dB peak)
Noise exposure should not be above these values – if it is, it needs to be reduced either through hearing protection or changes to working practice.

EXPOSURE LIMIT VALUE
(89 dB exposure, 140 dB peak)
This is big red flashing light territory – if you hit these values, you need to stop in your tracks until the noise exposure can be brought down to a safe level

Irrespective of your employment status, if someone's paying you to be somewhere there's a noise risk, they have the full duties of an employer – and you are required to follow their Health & Safety policy. Strangely enough, the Act only makes provision for employees – the audience, apparently, you can deafen as much as you like, though you should warn them in one form or another.

In practice
From the assessments I've been involved in, and from swapping notes with others involved in the field, a fairly regular pattern emerges. The following challenges seem to crop up regularly:

MAROONS AND FIREARMS
If something goes 'bang' on stage, the chances are that everyone nearby needs to be wearing earplugs at that point.

METAL-ON-METAL IMPACTS
If you're handling scaffold in an enclosed environment (like, say, the back of a truck), you should probably be wearing earplugs.

THE AUDIENCE
I think it's safe to say that the loudest thing in both pantos I did this year was the squealing mass of schoolchildren at the previews. Apart from giving Buttons the note that he is on no account to encourage the little darlings to scream, there's not a great deal you can do about this. For this sort of show, the operator should be fitted with some 6/9 dB linear plugs, and the front-of-house staff should wear foam earplugs, and, ideally, not do every performnce each week.

COMMS
Bussing together a number of microphones in parallel using the wiring running around the extremities of a decades-old theatre, and then piping the result in to your crew's left ear is always going to have risks. This is too big a topic to deal with in any depth here, but in general I'd say that it's always worth spending a bit more

if they deafen themselves by turning up headphones you give them... you are liable

time and money on comms systems (not using lightweight headsets like PH-44s in noisy environments, for example). Another area for improvement – which may or may not be the sound designer's job – is instilling a bit of comms discipline. I'm sure everyone reading this has suffered the effects of a live comms headset being dropped on the floor!

THE PIT
This is the big one; in my experience, the orchestra pit is consistently the loudest place in a theatre. Now, there are many way of alleviating the risks posed here, but I think this is where we get to the crux of the challenges facing a noise-aware sound designer. On the one hand, it's not appropriate to tell the musos how to do their jobs (and we don't want to get in to a conversation about hearing loss), but on the other, it is our responsibility to make sure that their foldback works for them.

This is further complicated by an annoying feature of the "Sound Advice" guidance concerning headphones: if you give an employee a Stanley knife, properly train and supervise them, and they still chose to stab themselves in the face with it, you're not liable. However, if they deafen themselves by turning up headphones you give them, it seems you are liable. So... answers on a postcard!

What now?
I hope that one thing that's conspicuous in its absence from the list above is "the stuff what comes out of the speakers" - it is sometimes an issue on shows that are consistenly loud or have very loud peaks, but the problem of the show being too loud is much easier to quantify and fix! Most of the other noise risks, however, involve decisions that reach much further than the sound department – who tells the dep horn that yes, he does have to wear the headset he's given? Who sticks up "Hearing Protection Area" signs in the pit? Should sound designers being raising awareness, or just fighting their corner?

So – what does everyone think? Please, if you do have the time, click through to http://www.associationofsounddesigners.com/noiseatwork and give us your thoughts on this issue.

Useful links

The legislation in question!
http://www.legislation.gov.uk/uksi/2005/1643/contents/made
The legislation in PDF format
http://www.hse.gov.uk/pubns/priced/l108.pdf
The (broadly accepted) recommendations of an entertainment industry-wide working group
http://www.soundadvice.info
In case anyone's interested
http://en.wikipedia.org/wiki/Weighting_filter
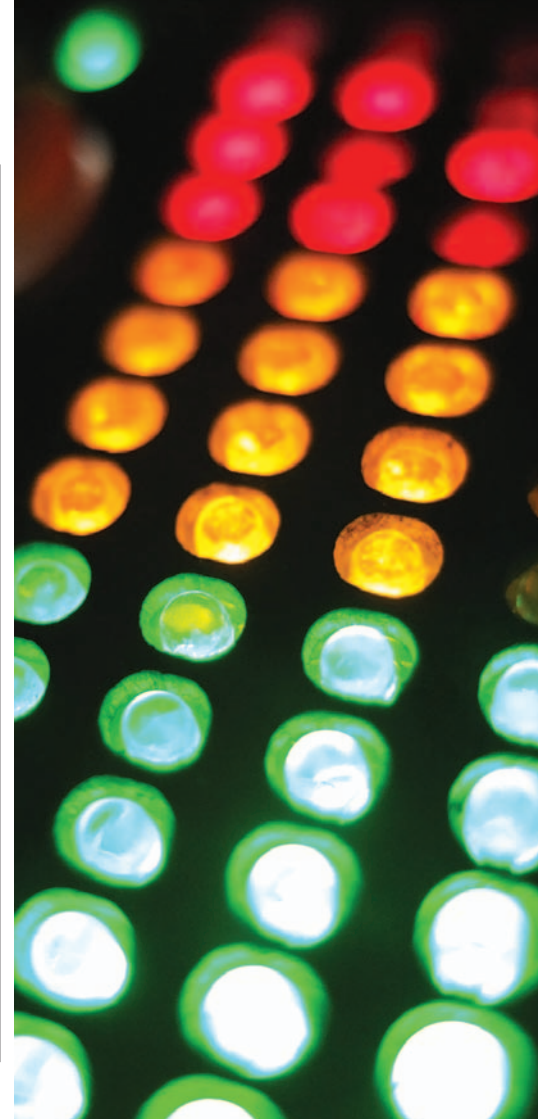
Sending and receiving large files

One of the realities of work nowadays is the amount of it that happens via the internet rather than face to face. This can save a lot of time and travel but we can often find ourselves banging our heads against various IT walls in the process. This month we'll be looking at one of the most common problems, how to deal with files that are too big to email. There are a range of services out there to help, all with their quirks and limits.

Most systems use the method whereby you upload files to a company's server, and then a link is sent to the recipient, which can be used to download those files. The various services usually put limits on the maximum size of each file uploaded, or the amount of online storage – the total disk space allocated to you on their servers to upload files to.

YOUSENDIT

YouSendIt has been around for a while now and has earnt its stripes for reliability but is beginning to show its age. The user interface is messy and convoluted, and the recipient is shown adverts for the service and encouraged to purchase a premium account.

Free Version: 2GB of total online storage, but the maximum file size that can be uploaded is a paltry 50MB. No download tracking and files must be downloaded within 7 days.

Pros: Proven reliability

Cons: Messy, constant adverts for premium accounts, very small max file transfer size


compared to competing sites

Premium Account: For a rather expensive $14.99 per month you get unlimited online storage, a maximum file size of 2GB, download stats and telephone support.

URL: yousendit.com

DROPBOX

Dropbox is gaining momentum rapidly as a way of sharing files and working collaboratively. Dropbox is slightly different from the other services in that it creates a folder on your computer that you put your documents into. That folder is synced to the Internet and can be
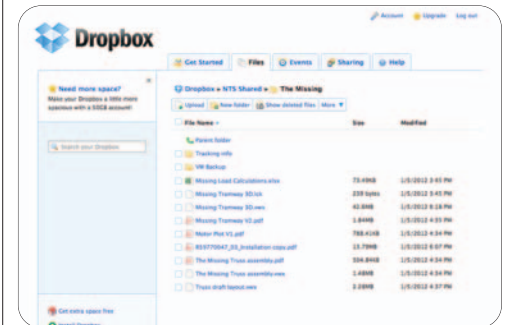
shared with other people. The synchronisation happens as a background process so it can take longer before the recipient receives the file but requires no action on your part. There are some common and potentially disastrous misconceptions about how Dropbox works though.

Most people use the free version of Dropbox which gives you 2GB of online storage, however any shared folders you join count towards that 2GB limit so it's easy to go over your limit, or inadvertently push someone else over their limit. Buying the premium account will only increase your online storage limit, not someone else's even if you're sharing one folder between the two of you. Furthermore, if you delete a file in your Dropbox that is shared with other people, then that file is deleted from everyone else's computer too, and vice versa – though there is an Undo function. When used carefully, Dropbox is a valuable tool for constant collaboration.
Free Version: 2GB of total online storage
Pros: Files are constantly synchronised between computers so are always up to date,

synchronisation is an automatic process
Cons: File upload is slow, easy to run out of space inadvertently, someone else can delete files on your computer
Premium Account: $9.99 per month for 50GB, $19.99 for 100GB.
URL: dropbox.com

WETRANSFER
The WeTransfer site is super slick and simple. No account or signing in is required, ever. You choose the files you want to send (up to 2GB) and enter the email addresses of the recipient(s). The recipient receives an email with

a link to the file to download, and you receive an email letting you know when they download it. Files remain available for download for two weeks normally, however if you access the site via https://asd.wetransfer.com/ they will remain available for 4 weeks and display the Association of Sound Designers logo next to the download link.
Pros: Clean & simple. No account needed. Unlimited online storage means no file management needed. Premium features without additional cost.
Cons: Website requires Flash
URL: wetransfer.com

GOOGLE DOCS
Whilst you may have used Google Docs to collaborate on a word document or spreadsheet in the past, it is a little known feature that you can also use it to share any file at all. Using a normal Google account you can upload files, and choose to share them with a number of people or generate a link that you can send out manually. If you wish, Microsoft Office documents can be converted to Google Doc documents for online collaboration.

Free Version: Files up to 1GB can be uploaded and users get 1GB of free online storage-
Pros: Files can be converted to Google Doc format on upload for online collaboration
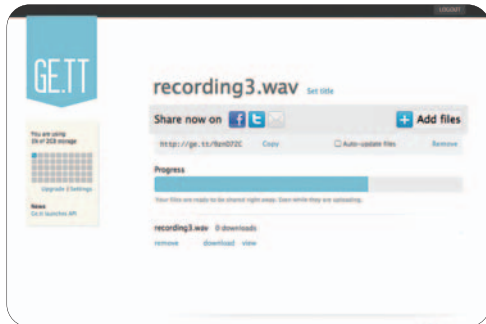**Cons:** Only 1GB online storage
Premium Version: Additional storage can be bought from $5 per year for 20 GB, which also provides extra storage for any Picasa, Gmail, Blogger & Buzz accounts you might have.
URL: docs.google.com

GE.TT
Ge.tt offers a streamlined interface for both sending and receiving files. Download tracking

statistics are provided, and as well as sharing to specified email addresses you can also share your files via Facebook and Twitter with a couple of clicks. One of the major plus points of Ge.tt is that the recipient can start downloading files whilst the sender is still uploading them allowing for a faster transfer if time is short.
Free Version: Without creating an account on the Ge.tt server you can upload files up to 250MB. By creating an account, for free, that limit goes up to 2GB. If you're sending files that big though, the 2GB total online storage means that you would need to wait until your recipient has downloaded the files before you could send more files.
Pros: Clean & simple, no account needed (for small transfers)
Cons: 2GB total online storage means some file management needed. Ad supported.
Premium Account: The premium accounts range from $5 per month to $20 per month and offer total online storage from 5GB to 100GB.
URL: ge.tt

SKYDRIVE
Microsoft's SkyDrive is well integrated into the free Hotmail email system and provides 25GB of storage but only allows files of a maximum of 100MB to be uploaded reducing its versatility.
URL: skydrive.live.com

MEMBERS OFFER
Last issue we covered how to use Sound Cloud for auditioning and audio file transfers. ASD Members can now receive 30% off the cost of premium SoundCloud accounts by visiting http://soundcloud.com/premium/redeem and typing in 'ASDSoundCloud'

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Ralph Dunlop, Sound Network Ltd
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