Tips for the Sound industry

Embarking on my career as an audio engineer, little did I know that the journey would be a myriad of challenges and growth..

Audio has truly pushed me to the brink of insanity, from learning the vast amount of technical theory to the practical application of complex equipment in high-stress environments. This article is written for new audio engineers entering the field. It focuses on what I know now versus what I wished I knew at the beginning of my career. For those of you teaching audio, I hope that it will provide some insight into the realities of working in the industry that you can pass on to your students.

My journey begins with my first Certificate and then my Bachelor's degree in Audio Engineering and Production at the Southern Institute of Technology (SIT). My time at SIT helped develop the foundation for my understanding of sound theory and engineering principles, guided by my friendly and knowledgeable tutors Aron Ives, Stu Carr, Doug Heath, and Dr. Sally Bodkin-Allen. The institution's facilities and tutors offered me world-class training on state of the art equipment during the early years of SIT's Zero-Fees scheme. The excitement of the new scheme and the influx of international and interregional students became a hub of creativity and developed my passion for audio as a potential career pathway.

After graduating in 2007, I moved to Wellington and began working at the Heavy Metal bar Valve (formerly Medusa, and currently Valhalla) in 2010. My role at these venues was to provide technical support, maintain the equipment, and set up, mix front of house (the speakers the audience listen to), and pack down all the bands that come through the venue without their own sound engineer. If bands brought in their own engineer, it was my job to assist them with any venue requirements.

At this time analogue technology was still commonly used throughout the world with some digital consoles being used more within the larger festival scene. Medusa and Valhalla are where much of my live sound education really began. Understanding how to set up and operate the equipment confidently took years of trial and error. There were mentors who would help at certain points, but most sound techs at that time were already established within the region and very protective of their jobs. It was not uncommon for the old dogs to watch me sink because they were cautious of the new kids coming through and taking much needed work.

Luckily by 2012 I had learnt enough to make certain bands happy with the quality of sound I could produce at that time, eventually leading to more touring work with specific artists. As I transitioned from the role of a live venue technician to a touring engineer, I quickly learned the importance of adaptability and troubleshooting in dynamic environments.

You will often hear of older engineers stating their love for analogue equipment and the sound that it produces, but personally I find some of the gear cumbersome and problematic. With old analogue equipment you could spend hours trying to figure out why only one side of the PA was working, especially if your knowledge of signal flow is not strong. You also had to start sound check from scratch as you would usually reconfigure the mixing desk to suit your workflow. This often started from resetting all the parameters like gain, equalisers (EQ), and auxiliary encoders back to their neutral position, as well as the outboard equipment like front of house and monitor speaker EQ. You'd be limited by how many compressors or gates certain venues would have, and it could just be a nightmare.

When digital mixing desks became more prevalent throughout the industry in 2012/13 it essentially meant I had to relearn how to mix. The pros of digital tech meant you could save settings such as gain, EQ, stage monitor levels etc for different bands and instantly recall these settings in any venue with the same console. There were fewer cables to problem shoot and there were digital stage boxes that eliminated the need for bulky snakes which connected the console to the stage connections. Digital desks also used a single connector type which nullified engineers having to carry a briefcase full of cable adapters. The cons of the digital consoles were a compromise in sound quality and workflow. Instead of having every dial in front of you, you now had to push buttons to access things like effects and monitor send level, and then push the same button to go back to front of house mix mode, making it harder to do things faster.

In 2015 I began working for the band L.A.B. starting as front of house engineer, and currently work as their stage sound engineer, commonly referred to as a monitor engineer. This means that the front of house mixer and I have independent control over the band's levels. In short, during my time with the band I have seen L.A.B. play shows where they have struggled to sell tickets to 20 people, to now being a part of their own sold-out shows in front of a crowd of 20,000. My journey culminated in a role as a professional monitoring engineer in arenas, pushing me to refine not only my technical skills but also my ability to communicate effectively in high-pressure situations. If something isn't working and you only have 5 minutes to fix it before the band walks out, you better know how to fix it.

From managing stage dynamics to optimising in-ear monitor mixes, I had to take on the technical challenges unique to the role of a monitor engineer. One of the main aspects of my role has been finding the balance between fulfilling the band's requirements, as well as utilising the technology to its fullest. At times I have had over 85 separate channels to mix into 12 sets of in-ear monitors along with 12 stage monitors.

Reflecting on my career, my journey from an audio engineering and production graduate to a professional monitoring engineer has been a continuous learning curve. The trials and tribulations of the early years made me who I am, and has taught me resilience, and a passion for the art of sound. If there were things that I wish I knew back at the start, they would be these:

1. **Get experience before starting your career** - find people who organise shows or do sound and offer to assist them. Often you will start doing this for free, but eventually you will get to ask for something in return like food, transport, and finally money.

2. **Know your worth but be realistic** - when you can start charging money, ask the client what their budget is and see if it will cover your minimum costs. I started on $150 per 8-hour day when I first started and built up from there. If you go in guns blazing, you may lose clientele because your wants exceed their budget, hence why I ask for their budget first.

3. **Learn how to do your taxes** - taxes vary depending on your business status, but most engineers operate as contractors. This is where you are hired to perform specific tasks for money. Sound engineers generally have to pay their own tax, and when working as a contractor you will have to make schedular payments, formerly known as withholding tax. At this stage the tax bracket is 20%, and the person paying you will deduct this from your agreed payment. To be paid you are legally obligated to send an invoice to the employer. If you do not know how to do this, go to the Inland Revenue website and read up on what you must put on the invoice. They also provide templates to work from, e.g. if you are being paid $100 for a job, your employer will deduct 20%, in this case $20 and pay this to Inland Revenue, and they will put in $80 directly into your bank account. From this $80 you will also need to deduct ACC levies, student loan repayments, and KiwiSaver payments.

Luckily for us, there are also apps that make the invoicing and tax obligations so much easier. A lot of my friends in the industry use Hnry, an app where you can create and send invoices. Hnry will also deduct the ACC, student loan and KiwiSaver repayments, saving you the headache of a big tax bill throughout the year.

4. **Know how to use any gear before entering the venue** - ring the venue you are working in and get a list of gear they use, and phone numbers of important people involved with the venue such as the live sound engineer. If you can, find some way of getting your hands on any equipment that you may need to set up at that show. If you cannot get your hands on the exact equipment do your research! There are a ton of videos available on most modern equipment for free on YouTube.

5. **Take on any job you can** - when I was living in Wellington there was a bit of kick back to some of the shows engineers would take. I was different, I would take anything, and those jobs led me to where I am now. There will come a time when you can pick and choose what you want when you reach a better position in the pecking order.

6. **Understand the client's technical requirements - who is the band member you can contact?** What instruments do they use? How many microphones and direct boxes do they need? Where is everyone positioned onstage? Do they have a technical rider? What time will they be at soundcheck? What opening acts will there be? What are their technical requirements? So on and so forth.

7. **Finally, and most important!** Believe in yourself but take on feedback without getting defensive - Make sure you can take constructive criticism; you will come across it at some point. Just suck it up and keep getting better.