



Sound for

Moulin Rouge has surprised and delighted audiences the world over, and the film was done in our 'back yard'.

Christopher Holder talks to Music Director and producer extraordinaire, Marius DeVries, and the film's Supervising Music Editor, Simon Leadley, to learn more.

In the following pages we track the evolution of the film's sound from the seed of an idea for a song, to the final mastering at the Fox sound stage.

By now most of Australia has at least seen some of *Moulin Rouge*. It's a sumptuous, \$100M cinematic spectacle with awesome sound, and it's something that Australia can be truly proud of. 'Hang on', I hear you say, 'it might have been shot in Australia, but so was The Phantom Menace... I suppose you'll be calling that 'Australian' next?' Wrong. This is a truly international Hollywood-style spectacle, but it is Australian: Baz Luhrmann the director is Australian, most of the heads of the departments of the film were Australian, the majority of the sound was recorded, premixed and edited in Australia – this is Australian. In fact, if Dick Smith had any say in this, you'd probably see his face on the credits with the Aussie flag fluttering behind him! Make no mistake, this is an Australian production.

That said, it was a real pleasure to talk with Marius DeVries (a Brit) about his work as Music Director. But it was equally gratifying to chat with our very own Simon Leadley about his role as Supervising Music Editor, and to hear his views on where Australia fits into the grand scheme of things when it comes to mixing it with the 'big boys' overseas.

Preproduction – Hard Disk, Easy Decision

Christopher Holder: *What sort of job did you have ahead of you when this project started?*

Marius DeVries: I had several responsibilities, but probably the two most important were working with the cast to produce and develop all of the vocals, and oversee-

ing the overall architecture of the soundtrack. There are about 21 major set-piece musical cues in *Moulin Rouge*, which are by and large dramatic treatments of famous songs, like *Diamonds Are A Girl's Best Friend*, or *Your Song*, or *Like A Virgin*, or *Roxanne*, largely sung by the cast. I let Baz know from the beginning that with hard disk recording technology – which both Simon and I are both very familiar with in the recording studio – we could have a lot of flexibility and freedom within the structure of the music cues. This gave us the chance to move a long way forward from the traditional – and rather restrictive – method of pre-recording and locking a piece of music, which then becomes pretty much inflexible: you lip-sync to it, and, apart from a few razorblade-style edits, it remains the same from the beginning of the process to the end.

But having that freedom afforded us by ProTools meant that none of those 21 major musical sign-posts in the journey of the story ever quite got nailed down. All of these things remained continuously evolving works in progress – right up until the last minute. That was the exhausting aspect of structuring the thing in the end. It took forever.

CH: *Tell me about the system you put together to get the job under way.*

MD: Simon and I talked at length in the early stages about how best to tackle this. We made a decision to build two portable recording studios, that would be with us in production throughout. So I took a look at what I had in my own studio, which at the time was a system based around a Macintosh G3 running Logic Audio with ProTools

Moulin Rouge

hardware, a bunch of Akai samplers (S6000s and S3200s), Avalon 737SP mic preamps, etc. So I effectively made a plan for the rigs by distilling the essence of my studio at home into a couple of flight cases, added a couple of good mics, and then the bare minimum of synths (a Roland JV2080, a Nord Lead, and a Kurzweil K2600); and I had two copies of it built. Eventually I had one system set up at Iona, Baz's house in Sydney, where preproduction of the film was taking place, and the other over at Fox where we were to be shooting. We used those two systems to sketch out all the cues. These were small setups by my standards, and I certainly missed many of my more exotic synthesisers; but it turned out to be very smart to have a very technologically focussed environment to work in, given how often and how quickly we had to switch between cues, and how complex the structural dimension of the music was to become.

Simon and I, wherever we were working, had our systems networked via ethernet, so his drives would be visible on my computer and vice versa. Whenever I had a piece of music I'd mixed down to a stage where it would be an advance on what he already had for that piece of music, I would be able to drag the updated mix onto his folder and send him a little ICQ message to say "here's the update for this". That way we both always had the same working versions of the song sketches.

On Set – Edits On The Fly

CH: *Being a musical, getting the music right during the shooting of the film would have been important I imagine?*

Simon Leadley: That's right. From the first day on the job I was getting music from Marius in sketch form which I would prepare for the shoot. And I was warned very early on that Baz was just as likely to want to edit the material on the set, regardless of whether you had 600 extras cooling their heels. So we had to figure out a way of being able to work with the music and stay flexible.

CH: *Which was?*

SL: On set we used ProTools for playback purposes. Guntis Sics was the film's sound recordist and we used his ProTools system as the nerve centre on set. He had lots of radio mics going into it and he had to worry about foldback as well – the actors needed to hear the music after all. It was kind of like a cross between a film recording environment and a live gig. I was there to do all the playback and any of the editing that was necessary.

Marius DeVries: Simon would be asked to change structures and perform multitrack ProTools edits on the set to respond to the dramatic needs of the scene. Perhaps Nicole Kidman would feel that the way we recorded a particular vocal was a little too rushed for the way she wanted

to take it dramatically. So we would get in there and time-stretch it or edit it to give her the space she needed. There was a constant dialogue going on between the needs of the drama, the choreography, and the music, in an attempt to keep a sense of life and a sense of performance in what were essentially pre-records. Which is not to say we did everything that way. There were several moments in the movie where we just abandoned the pre-records, stuck a mic up and I got on the piano – we performed the numbers live and painted in the arrangements afterwards.

Preparations – Just Three Bass Drums?

CH: *Given the breadth of musical styles and genre in Moulin Rouge, what other homework or preparation did you have to do for the job? For example, Marius, did you look at your sample library and think...*

Marius DeVries: ...I'm going to need at least three bass drums for this gig?! More seriously, I knew I was going to need an enormous amount of hard disk space. I didn't know we were going to fill up more than 300GB of storage, which is eventually where we got to, but I knew we were going to need an awful lot of storage and a ferociously efficient archiving system.

Simon Leadley: As far as archiving goes, I like to employ what I call the 'Dead Engineer Theory', by which I mean: have things organised to the point that if you do happen to fall under a bus, someone else has a chance of deciphering what you've done. The way I did it, was to bring Tim Ryan at Trackdown Music Services in to do work with me. He would see things, he'd understand more and more of it, and if something happened to me then he could walk straight in. As it happened this came in handy when we needed to fly Tim to L.A. in the final hectic phase of post production.

CH: *But, Marius, apart from having more hard drives on line than the FBI, how else did you prepare yourself musically when composing.*

MD: I spent considerable time trawling through the textures of that world of historical 1890s Paris, (as opposed to the mythical Baz Luhrmann 1890s Paris). I did a lot of listening to Ravel, Satie and Debussy, and to the café songs of the time – and, most pertinent of all, the Offenbach light operas, particularly the Cancan from the ballet Orphee. From a sound-design point of view I created many useful textures out of those elements – for example, samples taken from Debussy, processed in FX Machine and elsewhere so that they were no longer recognised, which might then end up as a useful pad sound for the *Children of the Revolution* song... that sort of thing. It was a process that I stumbled on in my work on *Romeo+Juliet*, doing a lot of sound design at the very beginning of the project based on relevant historical and

textual research. I'd end up with a palette of sounds which, apart from being useful to me, would come in handy for other people involved in the project as well.

CH: *That's what's intriguing in the soundtrack. You have that mix of the new and the old. It feels familiar yet fresh.*

MD: And that came from finding cultural audio sign posts current for us in the 21st century that meant the same as those things in the 19th century. So we wanted to explore what our modern version of the Cancan is, what our modern version of the Moulin Rouge might be.

CH: *And what did you decide on?*

MD: The Cancan in these times has become a piece of hokey, clichéd, Parisian tourist exotica, but at the time it had the character of an extreme, dangerous, hedonistic and euphoric fertility dance. Today I think its closest equivalent would be the 'wave your hands in the air' dance music you can hear in the clubs. Norman Cook [Fatboy Slim] – whose music is arguably the best of this genre – seemed to be the perfect person to do a 21st century take on the Cancan. And that's what he did. Meanwhile, the likes of Manumission in Ibiza [a club famous for allowing you to enjoy happy house music while watching people openly shagging on stage – CH] or Studio 54 in '70s New York are the modern equivalents of the Moulin Rouge. All of these places are, or were, palaces of sin in the same way as the Moulin Rouge was for its visitors, and the idea of club culture transported between the two centuries was a very fertile one for us.

CH: *And what about Monsieur Satie, what would be up to in the 21st century?*

MD: Well, Eric Satie, or at least a rather fictionalised version of him, is one of the characters in the film. He's a little bit more electronic than really was logically possible in the 1890s, but we took some license there. In the film he has this machine which is fuelled by the [hallucinogenic] drink absinthe, and is basically a kind of valve synthesiser,

which we christened the 'absynthesiser'! It's a contraption that



Andy Bradfield: For Baz's previous film, *Romeo+Juliet*, I was brought in by Marius to mix the soundtrack, and was asked to do a similar thing for *Moulin Rouge* this time around. But this project was a trickier because things were being recorded and altered right up until

the final moment. I was getting changes sent to me which I had to incorporate into the soundtrack mix, and meanwhile, I was making alterations which would then be incorporated into the final film mix. As you can imagine there was a mountain of material to work through, and up until the time I got involved Marius had been recording everything into Logic. I don't know Logic at all, but he didn't mind me printing into ProTools because I think it forced us to make a decision and move on – it meant we basically had a printed multitrack. I'd transfer 24 channels of digital from his system across to mine, plus all the keyboards and samplers, which up until that point he'd been running up

emits sparks, smoke, and strange musique-concrète noises... we turned him into a kind of cross between Stockhausen and the Aphex Twin.

The Creative Process – Unsheltered Workshops

CH: *Marius, can you talk me through the process of putting together one of these musical cues? I mean, was it a matter of Baz saying: 'this is the song I'm thinking about and this is the style I want it in, go away, make it happen, and come back to me in a week and show me what you got'?*

Marius DeVries: I was rarely given a week! Sometimes just a few hours! But you're right, it was very often like that. Apart from the songs decided upon in the original script, everything else was thrashed out in workshops which comprised myself, Craig Pierce the co-writer, Baz and Anton Monsted – who was credited as the Music Supervisor, but in reality had much more of a creative input than that title would suggest. We'd have daily sessions where we would sit down and just shoot ideas around based on what gaps remained in the structure. We would spend hours deciding on which songs were promising, and then equally intense workshops would ensue to decide how the songs would be done stylistically. Then it would fall to me, often on-the-fly in the room with everyone there, to perform a piano and drum machine approximation of what that stylistic direction would mean to a song like that. Sometimes I'd even have to sing along, often because I'd be the only half-qualified, and I stress *half-qualified*, singer in the room.

Then we'd draft it, laying down a very rough keyboard, vocal, and drum version of the song. We'd act the song among ourselves, we'd work out that it was too fast or too slow, or that it needed more or less verses or choruses... and slowly thrash out a rough version for it. Then generally Baz would leave for the day and I'd be left on my own in the studio for a few hours in the evening. By the morning I'd have to provide a CD containing a fairly polished-sounding redraft of the idea that would be taken into rehearsal or, in more extreme cases, onto the set when we were actually shooting.

The soundtrack's Mix Engineer, Andy Bradfield, offers his insight

on a desk in Midi world.

CH: *How different is the soundtrack CD to the music on the film?*

AB: There are differences... there had to be for the soundtrack to stand up on its own two feet. Meanwhile, some things that make sense on film (because of the visuals) sometimes don't make sense on a CD. For example, the fact the movie's Tango Sequence has four lead vocals works, because on screen you're seeing those four people and your brain can deal with it. For the soundtrack, though, I couldn't see it working, and told Baz as much. So we ended up doing an arrangement of the vocals to make it more coherent – and I don't think most people would notice that there's not four vocals, they just think: 'Oh, there's that song out of the movie'.

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Moulin Rouge's Music Director, Marius DeVries.

CH: *Sounds manic but fun.*

MD: Sure. Sometimes we practically incapacitated ourselves with how funny it all was. Although, it was often a gallows humour – apart from the sheer joy of the creative process we kept coming back to... 'my god, is anyone going to take this seriously?!'. There was that tension all the way through, because, first of all, it's a musical – is it going to work? And, second of all, it's a musical about the Cancan – how is that going to play out in a modern context?

CH: *Can you give us a specific example of this workshop process in action?*

MD: Perhaps the best example is the Tango Sequence in the movie. The sequence started life as a piece of music by Mariano Mores, called the *Tanguera* – which is a piece of fairly authentic Argentinean tango-derived orchestral music. Baz and Craig took this music, edited it somewhat and wrote their own lyrics for it. Christian, Ewan McGregor's character, was going to sing these lyrics on top of this music while at the same time a dance would enact

itself in the main hall of the Moulin Rouge. That was the outline. As we worked the piece more and more into the script it became obvious that what we needed was quite a bit more complicated than just a dance while Christian sings this lament. We came to the realisation that during the tango sequence there were three quite distinct but intimately linked strands of narrative. The Argentinean telling his story (which was enacted in the dance in the main hall), Christian wandering off into the night singing his story, and finally the drama unfolding between Satine (Nicole Kidman's character) and the Duke character who attempts to rape her in the Moulin Rouge's Gothic tower. So that's a fairly complicated triple sequence of events that all needed to be commented on and embodied in this one piece of music. I did version after version in the early stages, but we knew we were missing a crucial element in the sequence. For starters, we didn't have an iconically famous song in there at that stage. And, as beautiful as the tango piece was, it wasn't quite weighty enough to deal with the frenzy of the attempted rape of Satine, and the tango reaching its climax. So a solution we came up with, and fell in love with for several months, was for the whole thing to mutate into a sort of thrash metal version of *Under My Thumb* by the Rolling Stones... but keeping the tango going on top of it. We actually recorded that with Richard Roxborough (the Duke) and Nicole Kidman, and we had this version of *Under My Thumb*, which was quite the most Satanic and terrifying piece of music you've ever heard in your life, and we were all deeply in love with it! Then we had to license the piece from the Rolling Stones, but the deal ran into trouble. We realised that it was going to cost so much money to license these two minutes of music that it might unbalance the whole music budget. Meanwhile, Baz and I were wondering whether *Under My*

Australia: Can We Kick it? Yes We Can.

Simon Leadley: *Working on Moulin Rouge it was interesting to look at the differences between how things worked internationally, and to see how we could apply that to improve what we do here in Australia. The most heartening thing I observed was that we do, in fact, have the people who know what they're doing, who are smart and inventive... and this goes for every department. The problem we have is we don't have the infrastructure or the money to do the things you would like to do – we always have to cobble something together and come up with amazing results considering the resources we have at our disposal.*

For example, when we were doing the final mix at Fox in LA, we were in a room that had 280 inputs to the mixing console, we had two Sony 3348 48-tracks locked together, we had a ProTools system with 56 inputs to the console, and Geoff Foster (Chief Engineer at Air Studios and orchestra mixer for the film) had virtually every piece of outboard gear imaginable. I mean, the scale of gear was just extraordinary. But to do the job, you couldn't just cobble it all together from a few hard drives and an 888, it's just physically not possible. So that was something that really struck me... the scale of everything. It got to a point where I no longer

was timid about asking for things: 'I need another four 18GB drives and I need them now'... because that's what I needed to do to do the job. I probably could have worked out a way to do without them – stayed up all night trying to figure it out – but it was easier to get four drives, copy the data I needed, job done. In LA they wouldn't blink at that sort of stuff because you're in a studio that's costing US\$600 an hour – and that doesn't even include the cost of the personnel. So, any time that you're sitting on your hands is costing them a fortune.

The scale of operations in Australia is obviously no where near that big. But I think that with this film and others, people are realising that Australia is a place to make films, and to make the best films in the world. And maybe at some point we can put in a stage not unlike the Newman Scoring Stage at Fox in L.A. Now there's a studio which I'm reliably told loses money. But if they didn't have it, they might lose work coming into the film studio. But by us working towards having the best audio facilities locally, people will want to stay longer, and more work will be generated.

CH: *Currently I think there's a perception that Hollywood is using Australia like their own*

personal first-world sweat shop. Get the nuts and bolts done on the cheap and then whisk it back to The States to be given a polish by the people who 'really know what they're doing'.

SL: *For Moulin Rouge that simply wasn't the case. Sure, time was tight at the end of the production and there were some scheduling problems with doing things here, and the overseas guys felt that they were out of their environment in Sydney – they were all factors. But still, I would say if you look at the whole film, most of the hard yakka to get it to that last point was done here. I think you have to be encouraged, not discouraged by that... it wasn't a case of it being whisked away to be saved or anything like that – no one should get that impression. I think if the schedules allowed us to do it here, there's no doubt in my mind that it would have got done and the film wouldn't have suffered. And if it's not this film, it's the next, and if it's not the next, then it's the one after that. I think Australia will be able to compete on an absolutely even keel with anyone else in the world very shortly, and it's just going to be about people having the confidence in us to do it.*



Simon Leadley, Supervising Music Editor, presides over his ProTools rig at Fox Studios, LA.

Thumb was telling the Duke's story too well at the expense of the Argentinean's tale – who at the moment was just speaking and dancing. So we looked at the story he was telling, which was a cautionary tale of not falling in love with a woman who sells herself. So we thought, 'what songs do we know about prostitutes?'. And it took us a little bit longer to think of it than you might expect! But of course, *Roxanne* by The Police: 'Roxanne you don't have to put on that red

light, walk the streets for money, you don't care if it's wrong or if it's right' etc etc.

CH: A tango version of *Roxanne*? Of course!? *The answer was staring you in the face all along!*

MD: Well, that's it. So we superimposed a version of *Roxanne*, and it actually fitted like a glove. That was a moment of absolute clarity in the creative process: we put together a sketch of the Argentinean breaking out of the tango, the music cutting... and him singing... "Rooooooxanne", and then the music crashing back underneath it. So we thought, 'we're really onto something here'. So at that point we had this thing where Christian was singing original lyrics on top of the tango, the Argentinean simultaneously singing *Roxanne* and then the whole piece finally veering off towards this sort of Aphex Twin-like heavy metal version of *Under My Thumb*. As we went into rehearsal it became apparent that the overall gesture was becoming a little bit top heavy and a little overly complex. And as much as we were in love with the *Under My Thumb*

section of the sequence, the licensing issues and the issue of the cue's balance convinced us to drop it and have a climax that was really more of a, and I hate to use the words, rock opera finale. So we brought in some fairly heavy artillery in the sampled drum department and a big extra choral dimension to the orchestrations. That's how the piece ended up. That's a pretty extreme example, but the other cues all went through similar twists, turns and reassessments along the way.

CH: The fact that the musical cues were a constant works in progress wouldn't have made your job any easier Simon.

Simon Leadley: Well, Baz will do anything if he thinks it will get him a result. Which for us means things were obviously more difficult. Baz would have no hesitation in cutting the music up willy nilly, chopping scenes back and forth and doing all sorts of stuff you're not supposed to do! But that was one of the reasons why he's such a brilliant film maker – he ignores all the rules. But then the challenge for us was how could we retain a structure when someone has gone in and chopped something out and maybe lost half a bar here or there – how could you then create something that worked within the scene? Marius and I would go away and work on a new template to match Baz's rough edits, and that would then be the latest working version.

Post Production – Air Time

CH: Let's look at the post production phase of the film. What was the first thing that needed to occur after the shoot?

Simon Leadley: The first thing we had to do was produce a 12 minute version of the film. It was basically the entire film condensed and glued together, and it was a great tool for Jill [Billcock, the film editor] and Baz to see how it all worked. Myself and couple of people here at Sound Firm did the sound on that and put the music together, working with Marius. And that was the first step towards completing the film. It gave us a good idea as to what was required to get the music in sync with whatever editing had been done.

CH: And then there was a point where post production

A Look at Marius' Latest Tools of the Trade

Marius DeVries: Serato's Pitch 'n Time was a real godsend. With all the music in such a constant state of flux we were often speeding up stacks of background vocals, slowing down orchestral sections... and, in terms of quality, Serato's plug-in was head and shoulders about anything else doing that job.

Also, we relied on Antares' AutoTune quite heavily for all the usual vocal comping things... actually, perhaps you shouldn't print that!

The Bomb Factory stuff proved very useful. The Mooger Fooger and the LA2A compressors – they're very receptive. That whole plug-in emulation thing has become far more achievable over the last few years. Not only outboard emulations but synths. So, towards the end of the project I was able to run Logic in my Powerbook with a bunch of soft synths, and I had a really meaningful production work-

station within my laptop.

I'm yet to lash out on a audio interface for my Powerbook. I'm aware that there's a new Firewire interface from MOTU, which looks as if it might do the job. But I do want something palm-sized with two ins and eight outs. I've got the feeling that a little patience will be rewarding in this instance.

Not to say that the current crop of audio interfaces won't do the job. I've got friends who have done the whole PC/MCIA-to-expansion chassis thing, running ProTools on a laptop, and it looked good. I was with Jake Davis in LA the other day. He's running a G4 laptop with ProTools in rehearsals for Madonna's tour, and that's been very successful.

CH: What's your rig at home looking like?

MD: I just upgraded the whole thing before

Christmas and it's looking pretty fantastic. As far as ProTools goes, I'm still running my old stack of four 888s, and a couple of the 1622 interfaces. I'm doing more mixing within TDM now and less on the external board, so I tend have all my samplers plugged in and coming through TDM-land – hence the 1622s. I'm very excited by all the new Logic stuff, like the Logic sampler – which now has a TDM bridge so I can now run that within the same system. As I mentioned, I'm really getting into the soft synths – like [Native Instrument's] Reaktor, Prophet 5 and B4 Hammond emulation, as well as Emagic's electric pianos. Native Instruments has also bought a French soft synth design, called the Absynth, and it really is the most interesting synthesiser that I've played with for many years. So that gets the big thumbs up.



Outboard Galore: Geoff Foster with some of his goodies.

went overseas. First to the London, and then to L.A. What went on there?

Marius DeVries: A lot of the big orchestral parts were recorded at Air Studios in London, and the bulk of it was recorded by Geoff Foster – who’s another old ally, and another safe pair of hands in times of stress. Although prior to that we did do some of the orchestral recording in Melbourne with the Melbourne Symphony Orchestra at the Owaki Theatre, and some at Sydney’s Studios 301.

SL: Working at 301 wasn’t ideal at the time. They’d only just opened their new studios and it was in the middle of the Olympics. Baz wanted a very wide and rich orchestral sound, and being totally honest, I think the 301 room is just slightly small for that type of sound. Meanwhile, Air is of course in this huge old church, and it has a particular sound. If we were doing something different, the shoe may have been on the other foot. But it was more appropriate to head to Air.

MD: From my perspective, if you’ve been brought up in that Air Lyndhurst environment, it’s very difficult to go anywhere in the world and feel you have an acceptable substitute for that amazing sound you get in that room with that team. We were very spoiled in that regard.

SL: Not to say that quite a lot of the recordings done in Australia didn’t find their way into the film for various reasons. For example, there’s a piece used at the very end of the film, just before the credits, which has an absolutely classic ‘50s-style film music sound. I was hoping that would be used and it was. That’s an example of the Melbourne recordings.

Can ‘Our Nic’ actually sing?

Marius DeVries: When I first sat opposite Nicole in a studio and we started to explore her voice, we were both aware that there was a long way to go. With the help of Andrew Ross and Amanda Colliver in the voice training department, Nicole worked ferociously hard at the techniques she needed to pick up. One of the most satisfying experiences of my time on the film was to watch a fairly embryonic singing voice blossom into what you hear in the cinema, which is very convincing – both dramatically and in terms of pure song. Nicole came a long way, as she had to, and then she went even further than that... and it’s all her voice. People sometimes ask: ‘weren’t you tempted on some of those difficult notes to just sneak in a session musician to cover them?’. But we made a deal from the outset that we wouldn’t do that, and she did amazingly well.

Mixing in LA – \$1,000 A Day?

CH: At this point, Simon, you left for Fox Studios in LA armed with the orchestral recordings on Sony 3348 tape ready to do the final premixing with Geoff Foster. Is that right?

Simon Leadley: Yes. And rather than go into a regular mix room, I decided that it needed to be mixed on a dubbing stage. And even though the AMS Neve DFC console at Fox wasn’t ideal for the job (it’s essentially a film console after all), it was the right decision for this film – it’s not like mixing an album, finishing it and hoping it works – we needed to know what it was going to sound like in the context of the film. Geoff Foster did remarkably well to get what he needed out of that environment. Saying that, he did hire in an awesome amount of outboard. [See picture left.]

CH: And to what point did you need to get to in those premixing sessions to be ready to join the other departments for the final mix?

SL: We mixed everything back into ProTools in 5.1 format. I have to say, without ProTools v5.1 we really couldn’t have done the film. For any of the musical cues or songs we would do a 5.1 mix that would be split into its key components. So we’d have a 5.1 submix of the drums, 5.1 version of the keyboards, 5.1 of vocals, 5.1 of the backgrounds, 5.1 of the orchestra etc. So you could turn all those split mixes on and it would equate to the same as the final mix as a whole. The reason for doing that was Baz, even at this late stage, would say, ‘I’d really like the piano to be louder at this point’, and we could go back in and fix that problem very simply. If we’d had to do it any other way it would have been a nightmare. In fact, some of our sessions were 200 tracks wide, because every single song would have a whole host of hidden 5.1 tracks that constituted that one mix.

CH: It would be then that you took your ProTools 5.1 stem mix to the scoring stage at Fox where the final mix would occur?

SL: Yes. Every single person on the stage had a ProTools system feeding into the desk and then that was mixed down to DD8 Akai digital dubbers. So, for example, music was mixed down to one eight-track Akai digital dubber, and the dialogue was mixed down to one Akai dubber, atmospheres, backgrounds etc. So you’d have these eight-track dubbers that would be glued together and would create the final master. So, in the mastering you can do final tweaking, and bring components up and down – not unlike mastering in an album sense. Andy Nelson was the mix engineer in charge and he was magnificent.

Aussie Clobber

If you haven’t already caught *Moulin Rouge*, Don’t wait for it to come out on video, and don’t go to see this film in a crummy arthouse theatre. Go to the biggest and best movie theatre you can and enjoy it for the spectacle and, at least for our purposes, the sound. AudioTechnology dips their lid to the team behind the film, particularly all the Australians. I can’t wait to hear a few more Aussie accents at next year’s Oscars!

