

The One Hack That Guarantees A Unique, Pro Sounding Mix

by Stephen Kelly

First of all, thanks for downloading this guide!

Now, let me give you some good news. There is a way you can easily fast-track your progress and dramatically improve your mixes so that they stand up against the pros. Today, I'm going to show you how.

Whether you're just starting out, or you're more experienced, I guarantee you that after reading this guide, you'll find that this one hack will help you produce a unique, commercial and professional sounding mix. Not only that... but from now on, you'll get your mixes completed as quickly as possible and further develop your own mixing style, while still having fun!

So, let's get to it...



Stephen Kelly (Founder, UnderstandingAudio.com)

Ever ask yourself these questions?

- What is a good mix?
- How do I start my mix?
- How do I get my track to sound like (Insert Mixer Name here)'s mixes?
- Why do my mixes sound so harsh?
- Why can't I get my snare to sound like (Insert Track Name)?

The answer to all of those questions is not as complicated as you might think.

If you imagine an artist with a blank canvas, they have to start somewhere to realize a great piece of art. Their inspiration will come from some form of reference – whether that's another artist they admire or something that has inspired them.

The same can be said for a photographer. They'll ask their clients for references of what they want the finished product to look like so that they can get the right shots in the right environment.

If that's the case for other artistic forms, then why isn't it the case for mixing? The simple answer is that it is.

The key to a unique, professional sounding mix is to reference early and often throughout the process.

However, we often misuse reference tracks or at least don't use them to their full potential.

I'm going to show you how to use them effectively to help you achieve a **meteoric rise in mixing results!**

START WITH YOUR TASTE

Luckily, us mixers never start with a blank canvas. When a track arrives for us to mix, it has been carefully (we pray!) written, arranged, produced, performed, recorded and edited for us to work our magic. You might have been involved in some or all of the previous stages of creation, but now your role is that of the mixing engineer.

As a music lover, it's safe to assume that you listen to a lot of music. Your taste for what you like has already been defined over many years of listening. This is what actually separates you from every other mixer in the world and **makes you unique**.

So what is a perfect mix? It's impossible to answer that question because it's so subjective.

Quite simply, the perfect mix does not exist but critical acclaim does.

Taking an example from the sporting world... It's widely accepted that Lionel Messi and Cristiano Ronaldo are among the best soccer players on the planet and probably to have ever lived. But who's better? That question divides soccer fans the world over, but no one has the definitive answer – because it's entirely based on personal opinion. The one fact that can't be disputed is that they are both world class at what they do.

The same parallels can be drawn in the mixing world. You might prefer Dave Pensado to Manny Marroquin, but it's unquestionable that both are incredibly gifted engineers at the very top of their game. To try and decide who's the better mixer is impossible. With that said, you personally might not even think that either of their work is very good. **(Pro Tip – you'd be wrong!)**

To fully explain the value of reference mixes, I need to show you a technique I originally borrowed from Roey Izhaki and have built on over the years.

ACTION STEP #1

- Pick 20 of your favorite tracks.
- Import them into your DAW.
- Trim random 20 second excerpts from each song.
- Arrange the excerpts one after the other on a new track and crossfade.
- Loudness match the excerpts using clip gain and a loudness meter.
- Listen to your set!

The most important part of this exercise is that you level match the excerpts to each other. You can do this by ear, **but there's a much more accurate and efficient way.**

To make sure you're hearing all the information of each track in your set accurately and relative to each other, loudness match them using a loudness meter and the EBU R128 loudness standards.

Even 0.5dB of a difference in perceived volume can influence our decisions as to what sounds good. More often than not, **our brains perceive louder as better** and this is **the cause of The Loudness Wars!** So make sure your tracks are accurately matched for loudness so that you start with an even playing field.

REFINE YOUR REFERENCES

After you've listened to your reference set the whole way through, go back and listen to it critically. I do this with a pen and paper in hand (old school!) so that I can make notes as I go.

What's amazing about a loudness matched reference set is that the short excerpts do not allow your ears or brain to settle into the potentially vast differences in style as you hear them. You're just focused on the **sonic differences**. This means you can develop your taste even further and define exactly what you like.

This also means you're not tied to mixing in one style or referencing from just one style. **You can and should borrow ideas from other genres and apply them to the tracks you're mixing.** This is a surefire way to really make your mixes sound unique and help you stand out from the crowd.

It's so hard to quantify your taste and make it tangible, but by going through this exercise, you are doing just that. Rather than having a rough idea in your head of how reverb should be applied, you can listen to one of your references up against your own mix to see if you've hit your target.

During this critical listening session, you might find that a mix you initially thought was great does not actually compete when played alongside other mixes in your set once they're level matched. If you no longer see the value in having it as part of your set, cut it and add another mix that would be more beneficial to your growth as a mixer.

This is also the time to outline the elements of mixes that compliment your weak points. For example, if you know that you're not great at mixing rock drums, it makes sense that you should have some exceptional examples of rock drum mixing in your set.

REFERENCE RECOMMENDATION (Drums)

If you're having trouble with rock drums, it would be remiss to not include a Chris Lord-Alge (CLA) mix in your reference set. Here are two great examples!

1. Muse – 'The 2nd Law: Unsustainable' (Mix: CLA)
2. Green Day – 'Wake Me Up When September Ends' (Mix: CLA)

Once you've refined your reference set and finalized it, bounce it as one long audio file. This file should travel with you everywhere and as it's your reference set, it should be played and used in every environment. If you're looking to mix in a new room or have to mix on headphones in a hurry, this is the file that will help you adjust.

ACTION STEP #2

- Bounce your reference set to a single audio file.
- Put this file and the Pro Tools session on a USB key.
- Play your set everywhere – on your studio monitors, laptop, through your earbuds, headphones, in your car etc.

GET SPECIFIC REFERENCES

At the start of each mixing project, you now know where to begin. More importantly, **you know what you're competing against and trying to achieve with your mixes.**

However, it's still crucially important that you don't ruin a song simply because you heard a delay used on a track in the charts and you want to emulate it. What you're doing must always serve the song and to do that, **we must stay true to the artist's intentions.**

The best way to know what their intentions are for the final mix is to ask them. I highly recommend you ask the artist(s) or producer(s) you're working with for 2-3 specific references of how they would like their mix to sound. If they can't think of any, share your ideas with them and some references of what you think will serve the mix. By doing this, they can at least tell you if you're on the right track and through this feedback process, they'll probably then be able to get more specific.

It's worth mentioning that some people use just one reference as a form of blueprint from writing all the way through to mastering. I would highly advise against using this approach, as it limits creativity and risks the track sounding exactly like the reference in every way.

If the artist or producer comes to you with only one reference, you can share a few others with them and see if you're on the right track. They'll most likely either agree or offer some more.

The great thing is that even if they have stuck to one reference the whole way through, you can add your unique taste to the mixing stage with the aid of all the tracks in your reference set.

Once you've finalized the specific references for your track, you

should import the full tracks into your session as well. Make sure they are also level matched with your reference set and with each other.

This is also another opportunity to focus on one of your weaker areas of mixing. If you're finding that your vocals are often too prominent in the mix, then it might be worth defining your upper limit of prominence and having a reference for that as well. It might already be part of your reference set, or something you want to add later.

REFERENCE RECOMMENDATION (Vocals)

Here's an example of a very 'up front' vocal sound. It suits the song and is mixed beautifully (**pun intended**), but in my opinion, if your vocals pass this point, they're too prominent in the mix.

Christina Aguilera - 'Beautiful' (Mix: Dave Pensado)

ACTION STEP #3

- Ask your client for 2-3 references for the mixing stage.
- If they can't provide these, offer some suggestions.
- Make sure to focus on your weaker areas by referencing strong examples of your intended results.

ACHIEVE BALANCE

One of the most common questions asked about mixing is “**How do I start?**” By going through the previous steps, you’re already streets ahead of a lot of mixing engineers and progressing quickly towards developing and refining **your unique mixing style**.

Now, it’s time to start moving the faders. Before you do, have one last listen to your full reference set, the reference tracks provided by your client and the specific track you’ve selected to help with your weak point(s).

Once you’re happy that you have a clear idea of how you want the mix to sound, get your fader mix done as quickly as possible. By moving your faders and pan pots to complete your gut mix in about 10 minutes or so, you’re taking action while all those great ideas are still in your head and the vision for your completed mix remains clear.

When you’re done, it’s time to compare it against your references and adjust the balance if necessary. Again, you’ll want to make sure your references are loudness matched to your mix, so you can either do that by ear or more accurately with the help of a loudness meter. The beauty of level matching all your references together earlier means that you just need to move the fader on your reference track to match the level of your mix.

Before you’ve even touched a plugin, you now have a balanced mix that is intentionally designed from the outset to compete with commercial tracks that have been mixed by engineers at the top of their game. Not only that, but **you’ve personally selected what sounds good to you, so you’re already putting your own unique stamp on the mix**. That is what your client has hired you for at the end of day.

ACTION STEP #4

- Listen to all of your references from start to finish.
- Quickly complete a fader mix (10 mins.).
- Compare against your references once more.
- Adjust the balance of your mix to taste.

EQ BALANCE

You're now at a point where you've made a lot of quick wins in your mix and it sounds well balanced in terms of volume and positioning in the stereo field. This is also the stage in the mix where it can be won or lost based on what you do next.

Now is the time to start monitoring in mono so that you can look at getting the most out of every frequency range in your mix.

While making EQ decisions, don't be afraid to flip back and forward between your mix and your references. Not only will this keep you on track to getting your desired results, but it will help you avoid ear fatigue after you've been mixing for a while.

It's helpful to have a few reference tracks highlighted that you feel contain great examples of low end, mid-range and high end.

Here are a few of mine...

REFERENCE RECOMMENDATION (EQ – Low End)

I love how the kick and bass in both of these tracks act as a strong foundation for the rest of the mix. All of the low end frequencies in each song are tastefully balanced with each other.

1. Imagine Dragons – ‘Radioactive’ (Mix: Manny Marroquin)
2. John Legend – ‘Used to Love U’ (Mix: Manny Marroquin)

REFERENCE RECOMMENDATION (EQ – Mid-Range)

The mid-range is arguably the most important when it comes to keeping the mix together. ‘Uptown Funk’ is a busy mix with lots going on. ‘I Need You Tonight’ is a little more sparse. Both are excellent.

1. Mark Ronson – ‘Uptown Funk’ (Mix: Serban Ghenea)
2. INXS – ‘I Need You Tonight’ (Mix: Bob Clearmountain)

REFERENCE RECOMMENDATION (EQ – High End)

Among many other highlights, these two mixes have beautifully bright, balanced high ends and I use them all the time as a benchmark for my mixes.

1. The Roots – ‘Sacrifice’ (Mix: Bob Horn)
2. Mel B – ‘Never Be The Same Again’ (Mix: Dave Pensado)

The EQ stage of mixing gives you the opportunity to really “clean up” your mix. You can remove any problem frequencies and accentuate what’s great about the track.

While in this stage and adding further balance to your mix, it’s the perfect time to reference against the tracks that you love and appeal to your taste.

Another great part of referencing in this way is that you can really focus in on any areas that you’re having difficulty with and want to improve.

You can use a simple EQ on your stereo bus and on your reference tracks to compare the two in that frequency range only.

So, if you’re struggling with low end, you can set a low pass filter at 180Hz and only listen to the low end of your mix and ‘Radioactive’, for example. Comparing and referencing this way will let you know if you’re in the right ballpark in specific ranges.

You can use the very same technique for both the mid-range and the high end.

ACTION STEP #5

- Start monitoring in mono.
- Add EQ to any tracks that need it.
- Compare against your references.
- Compare against your references in specific frequency bands, when needed.

DYNAMIC BALANCE

Compression is something that confuses a lot of people. But if you've followed all the previous steps, you'll have a really nicely balanced mix that will only be helped by the use of this powerful tool.

Don't think as much in terms of ratios, thresholds and attack and release settings. They're obviously important, but it's better to think of compression as what it really is – a tool to help achieve dynamic balance. A compressor simply helps to control the volume of certain elements in a mix, but it can also help to bring a track to life.

Once you've compressed what's necessary, make sure to go back and once again check your references to see if you're in the right ballpark.

It might not be the concept of compression that you're struggling with, but applying compressors to specific elements in your mixes. For example, if you're struggling with drum compression, you could check out the two CLA tracks I've already mentioned.

Again, flip back and forward between your mix and your reference tracks to help narrow the gap in quality once more. You'll hear elements of your mix that stand out. Perhaps it's an uneven snare track or a synth that needs some added emphasis in the mix. You could find that applying some tasteful compression will fix both issues.

You might also want to tighten up your whole track and find that it's missing the glue that binds it. What better way to achieve that glue than to compare your track against a reference that you feel achieves that balance?

REFERENCE RECOMMENDATION (Compression)

Manny Marroquin used two different stereo bus compressors for the verse and chorus in 'Locked Out of Heaven'! That's a big risk, but it's done seamlessly to glue the track together.

'Do I Wanna Know?' is masterfully balanced all round, but the dynamic balance between all the elements in the mix is specifically tastefully done. The contrast of the guitars in the first chorus is a particular favorite of mine.

1. Bruno Mars - Locked Out of Heaven (Mix: Manny Marroquin)
2. Arctic Monkeys - Do I Wanna Know? (Mix: Tchad Blake)

ACTION STEP #6

- Apply compression to the tracks/busses that need it.
- Compare against your references.
- Compare specific dynamic problems you heard earlier in your mix against your references. (See a pattern yet?!)

So now your faders are balanced well, you've got the most out of every frequency range you and your dog can hear and you've balanced the dynamics. Is the mix done yet? Not far off... but as it stands, there's no depth to it, it's probably not as wide as you'd like and it doesn't quite pop like a radio mix. Let's fix that with...

EFFECTIVE EFFECTS!

You could go absolutely nuts and put every effect you own as an insert on every track you see fit at this point. You'll either end up with some sort of avant-garde masterpiece or the most atrocious piece of drivel anyone's ever heard. The smart money is on the latter.

So resist the urge for now and let's focus on achieving your goal of a unique, professional sounding mix. The pros don't go with the approach of throwing every effect at a mix unless it's for a very specific use that I'll talk about later in this guide.

Before adding width and depth, focus on the elements you think need some emphasis with saturation and/or distortion. That's going to depend completely on the type of track you're mixing and the vibe you're looking for. You're not going to put heavy distortion on an orchestral mix... unless you've gone for the avant-garde masterpiece approach – if so, fair play to you!

REFERENCE RECOMMENDATION (Distortion)

'Hysteria' is a great all round rock mix and Rich Costey's treatment of the lead vocal blends it smoothly with the distorted bass and guitar riffs. Whereas 'Get The Party Started' has a "megaphone" effect throughout to "announce the party" in a big pop track.

1. Muse – 'Hysteria' (Mix: Rich Costey)
2. Pink – 'Get The Party Started' (Mix: Dave Pensado)

Now comes the fun bit. Once you're happy with your distortion/saturation treatment, you can stop monitoring in mono and bask in the glory of all your previous work in stereo.



(You were listening in mono, right?!)

When you're as happy as our friend in the hat above, it's time to add some ambience to your mix with reverb and delay. That is, of course, if it's part of your style. In my opinion, some ambience is always better than none at all.

Adding ambience to your mix can be as easy or as complex as you'd like to make it. You can use multiple reverbs for various elements or groups of elements, or you can take an entirely minimalist approach.

The easiest method is to create one reverb aux track and send the elements you'd like to have more depth to this track.

If you're looking for inspiration on how to use reverb more creatively, your references come into play once again. Listen through your favorite mixes, highlight reverb uses that appeal to you and then try to emulate those in your own mixes.

REFERENCE RECOMMENDATION (Reverb)

I love the use of reverb in 'Karma Police' because the lead vocal remains quite dry until the 2:34 mark when multiple effects are introduced. The reverb here creates a very haunting effect.

'Someone Like You' is a perfect example of placing one singer in the same room as one instrument. Tom Elmhirst mentioned that the only issue for him on hearing the song was the vocal reverb in the reference mix. He definitely nailed it in the final mix!

1. Radiohead - 'Karma Police' (Mix: Nigel Godrich)
2. Adele - 'Someone Like You' (Mix: Tom Elmhirst)

Now that you're the Yoda of reverb, you can move on to adding delay to the mix. The order in which you add reverb or delay is interchangeable, but when starting out, it's preferable to start with reverb because more people seem to struggle with it. I usually still add reverb first and delay after, so I can hear what my delay sounds like running into my reverb effects.

Delay goes hand in hand with reverb in giving you the front-to-back control that a pan knob gives you from left-to-right. It can really make your mix sound epic and give it a signature sound when used right.

REFERENCE RECOMMENDATION (Delay)

‘Let’s Dance’ has an iconic delay sound that Bob Clearmountain added to Nile Rodgers’ guitar part in the mix. It helps to blend the guitars perfectly with the vocals, synth and brass parts and it’s badass!

Phil Tan’s mix of ‘Diamonds’ is one of my favorites for vocal delay. Listen to the words “shooting star” and what happens at that moment... a superb reflection of the song lyrics in the mix and a mixing engineer staying true to the intention of the song.

1. David Bowie – ‘Let’s Dance’ (Mix: Bob Clearmountain)
2. Rihanna – ‘Diamonds’ (Mix: Phil Tan)

I already mentioned that the pan knob gives you control from left-to-right in a mix, but you can also add greater width if you’d like. Now is the time to add any stereo wideners or stereo imaging plugins that you feel are needed. Using plugins like this can add a greater sense of space to your mix and help to accentuate different elements. They can also be used as a creative, unique effect. If it’s helping the balance and creativity in your mix, go for it!

As with every other technique I’ve mentioned, **how you use the methods and plugins are entirely up to you and the references you’ve defined as exemplifying them.**

When it comes to stereo width, here are a couple of my favorites...

REFERENCE RECOMMENDATION (Stereo Width)

From the get-go, the backing vocal chant in 'Pompeii' is spread wide to surround the lead vocal. Then in the chorus, the toms are also spread out to create a super wide but up-front drum sound.

The synth that enters at 1:16 in 'Hold My Liquor' gets me every time. The slow rise and the buzz combined with the stereo width makes me feel like it's about to jump out of my monitors!

1. Bastille – 'Pompeii' (Mix: Spike Stent)
2. Kanye West – 'Holy My Liquor' (Mix: Manny Marroquin)

All of these effects are used to create a more immersive and polished mix. How do you know if you've done it right? Yep... **Check your references!**

ACTION STEP #7

- Add distortion/saturation where needed.
- Monitor in stereo again and notice the difference!
- Add reverb and delay for extra depth.
- If your track calls for stereo width, add it in now.
- Compare the effects levels with those of your references and see if you've done a good job!

SWEET AUTOMATION

You could pretty much call it a day at this point. Or, you could take the nicely balanced mix you have and **put your signature stamp on it by automating volume levels, panning and even the plugins and effects.**

In case you're wondering where to get ideas for this... you guessed it... **USE YOUR REFERENCES!**

This is where you can get really creative, but be careful not to go too far and ruin all your previous work. Subtle moves create the world of difference at this point.

Think of things you can do to open up the chorus or emphasize certain words like the “shooting star” in ‘Diamonds’. At this stage of the mix, you can really show off your taste and your own mixing style.

REFERENCE RECOMMENDATION (Automation)

The chorus of ‘Viva La Vida’ is much wider and has more low and high end than everything that comes before it. It's subtle, but awesome!

The first 16 seconds of ‘MANIAC’ are automated sonic madness, but that's the idea...

1. Coldplay – ‘Viva La Vida’ (Mix: Michael Brauer)
2. Kid Kudi – ‘MANIAC’ (Mix: Anthony Kilhoffer)

FINISHING TOUCHES

Just when you thought you were out, I'm going to pull you back in and start hammering on about the value of your references again. When you're totally happy with everything in your mix and it's ready to print, **go back and listen to your references one last time and see if your mix stands up against them.**

If you're happy, then congratulations. If not, fix what needs fixing!

Ok... you're actually done.

You definitely have something unique sounding on your hands (ears?!) now. If you think about it, you've probably used a few stylistic tricks of your own on this track that you've developed as your mixing career has progressed. Even if this is your first mix, you'll repeat some of the same things you did in this mix on your next project.

This is a tangible, quantifiable definition of your taste and what makes you unique. **The more mixes you do, the better you'll get and the more unique your style will become.**

I mentioned 'I Need You Tonight' by INXS earlier in the guide as part of an EQ example, but that track has a very similar iconic delay effect on the guitar to 'Let's Dance' by David Bowie. Would it be a complete shock to you to know that they're both mixed by Bob Clearmountain?

It might seem like overkill to keep going back and listening to other music while you're mixing a track, but there are many reasons why I'm giving you this advice besides those I've already outlined.

Here are just a few extra benefits:

- You've personally selected these tracks to exhibit your taste and what you love about music to others.
- The reference set can be used to give you a break from listening to the same track for hours and keep you focused on making great music.
- Your mixes will never fall apart again when played on another system outside of your studio setup.
- I'll say it again... You will mix faster.

The most important benefit, however, is the fact that **you are directly comparing your mix against the pros**. You can hear if there are any gaps in quality and see if you compete. If there are, keep mixing and keep working hard!

By creating this direct comparison, **you will make explosive jumps forward in your mixing career** and skip past a lot of the questions, problems, concerns and insecurities that plague other mixers.

While they're 12 hours into their mix and it's falling apart, you'll be long done, eating a celebratory steak (optional) and getting ready for your next challenge.

Like I said earlier, your taste is already there and that's what makes you unique. It's amazing how quickly what you expect to hear becomes engrained in your brain. Over time, because you've nailed down exactly what you feel are great mixes and great examples of mixing techniques, you won't need to reference as often and know what sounds and feels right for you.

The overwhelming benefit of going through this process is that the more you do it, the less you actually have to reference in future. **As your experience as a mixing engineer grows, people will want their mixes to sound like yours.**

Your taste and style will also evolve over time and your reference set should too. Even if you're not using it as much anymore, it's always great to have a reference set in your back pocket for all of the reasons I've outlined above. Just like updating your mixing samples on your website, your reference set should be updated often too.

I mentioned a lot of my own personal recommendations for my references throughout this guide. You might completely disagree and have your own ideas, which is great! If you do, feel free to share them with me. Mixing is an entirely subjective art form and I love to hear other ideas all the time.

Drop me an email or leave me a comment on my site and I'll get back to you.

So, there you have it...

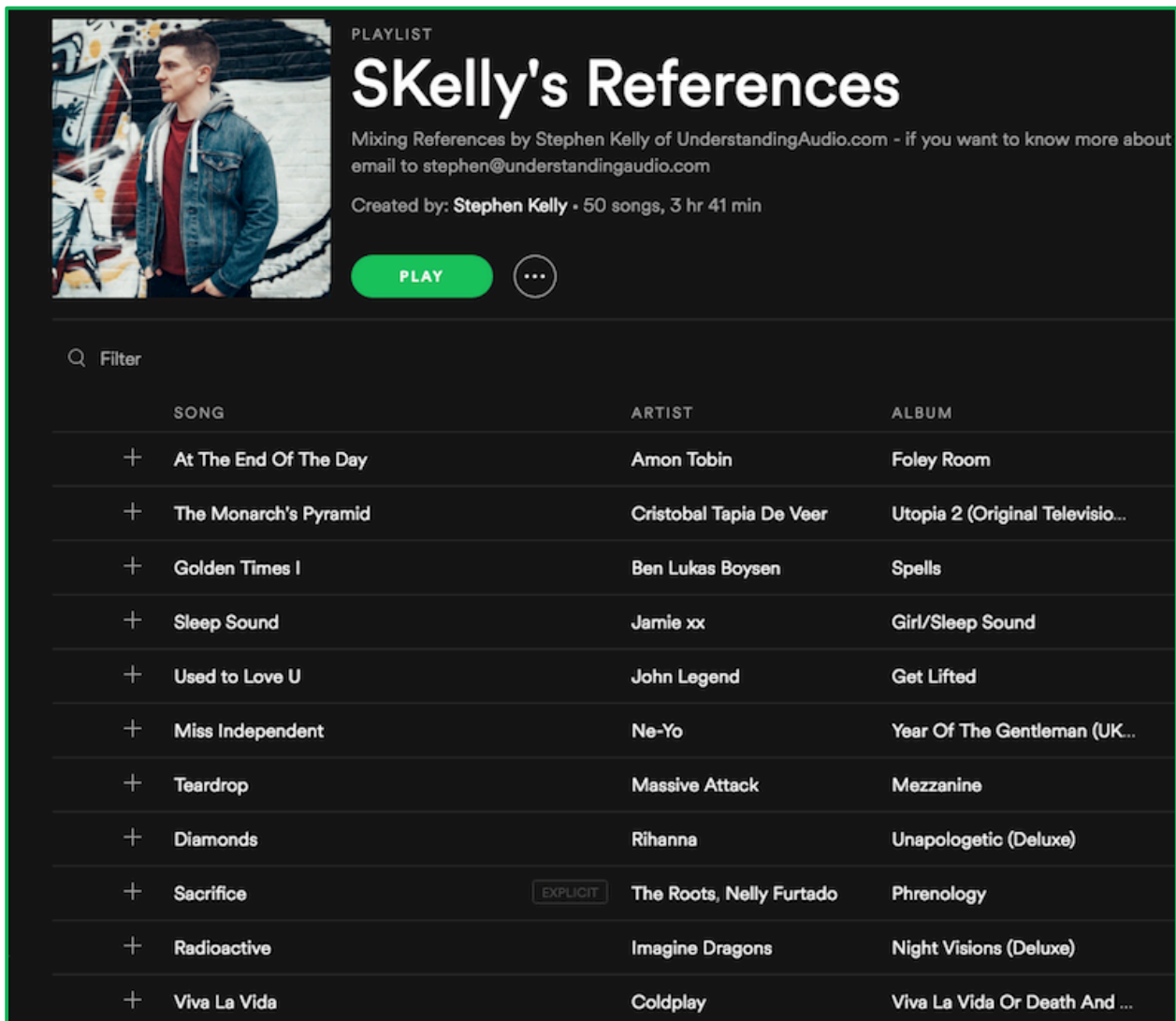
The one hack that guarantees a unique, professional sounding mix is to reference early and often throughout the mixing process.

Now you just have to go and do it!

-Stephen
(Founder, UnderstandingAudio.com)

EXTRA BONUS FREE STUFF!

So that you can listen to all of my mix references in one place and insult me on my taste, [I've made you a Spotify playlist of 50 songs that I'm currently using.](#)



The screenshot shows a Spotify playlist interface. At the top, there's a cover image of a man in a denim jacket. The title 'SKelly's References' is prominently displayed. Below the title, a description reads: 'Mixing References by Stephen Kelly of UnderstandingAudio.com - if you want to know more about email to stephen@understandingaudio.com'. It also states 'Created by: Stephen Kelly • 50 songs, 3 hr 41 min'. There are 'PLAY' and '...' buttons. Below this is a search bar with 'Filter' and a table of songs.

SONG	ARTIST	ALBUM
+ At The End Of The Day	Amon Tobin	Foley Room
+ The Monarch's Pyramid	Cristobal Tapia De Veer	Utopia 2 (Original Televisio...
+ Golden Times I	Ben Lukas Boysen	Spells
+ Sleep Sound	Jamie xx	Girl/Sleep Sound
+ Used to Love U	John Legend	Get Lifted
+ Miss Independent	Ne-Yo	Year Of The Gentleman (UK...
+ Teardrop	Massive Attack	Mezzanine
+ Diamonds	Rihanna	Unapologetic (Deluxe)
+ Sacrifice	EXPLICIT The Roots, Nelly Furtado	Phrenology
+ Radioactive	Imagine Dragons	Night Visions (Deluxe)
+ Viva La Vida	Coldplay	Viva La Vida Or Death And ...

They're all included for precise purposes and are ordered appropriately for a specific reason. If you want to know why, just drop me an email and we can have a chat about it!