THE MUSIC PRODUCER'S HANDBOOK

Bobby Owsinski

music PRO guides
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THE
Music Producer's
HANDBOOK

Bobby Owsinski

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Introduction

For as long as I can remember, I’ve wanted to be a record producer. Back in my gigging days in the 1970s, I was fascinated by records and pretty baffled as to why the music on them sounded so good, since my bands at the time couldn’t always capture the essence that a hit record had. You couldn’t always hear into the nuances of a well-produced production back then, especially given the audio quality of the record and cassette players of the era.

Only after a Dokorder 4-track tape recorder became part of my musical arsenal did I begin to appreciate the mechanics of production, as I discovered techniques like doubling vocals, microphone placement, bouncing to open up new tracks for overdubs, and stacking harmonies. But when my band finally signed with the Polygram subsidiary De-Lite and I got to work in a real 24-track studio with a real producer and engineer, I was hooked on record making. We ended up making a thoroughly unremarkable record (one that I still refuse to play for people), but the experience led me to Berklee College of Music to bolster my musical chops in preparation for a production career.

Berklee had a pro studio (complete with an MCI console, which was a hot piece of hardware at the time), and I did everything I could to be a part of it, which included all the maintenance. That was pretty easy since I already had a degree in electronics. Before you knew it, I was Berklee’s newest instructor, thanks to my recording experience and the knowledge I gained from studying everything I could on the subject since my early teens (which wasn’t all that much at the time, but it was more than anyone else in the school had). From that point on, my whole life was built around that studio day and night, and I saw just about every kind of session you could think of, involving every kind of music. But after overhearing the fateful words of a frustrated instructor in the teacher’s lounge (“This place is for rookies and has-beens!”), the realization came to me that Berklee was not the real world, so off to Los Angeles I went. Why L.A.? It was warmer than New York, London, or Nashville—the only other record-making centers that were an option.

Living in L.A. started me on a 20-year run of producing music for just about every kind of outlet you could think of: from mouthwash commercials to long-forgotten television shows to B and C movies and to bands and artists in all shapes, sizes, and genres. Many of these sessions took place in the best studios money could buy, and many were in the worst. Some of the work was for major entertainment companies and labels like ABC, Columbia Records, Warner Brothers, and Fox, while other work was for smaller entities long gone or gobbled up by a conglomerate. Still other jobs were done totally on spec or even produced with money out of my own pocket (unfortunately none of those were ever hits).

For a few years I worked as a staff producer for the now-defunct Shattered Music, which lead me to produce a series of acclaimed blues records by ex-Rolling Stone Mick Taylor, Duane Allman protégé Gerry Groom, “The Legend” Joe Houston, guitar-slinger L.A. Jones, and even the famed bluesman Willie Dixon (I produced his last published song). You don’t make too much money making blues records, but I learned a lot about being in the here and now, since most blues players don’t much care for multiple takes (“Why should I try it again? I already did it once!”)

In later years I became one of the first producer-engineers to delve into 5.1 surround sound, working on DVDs for a whole slew of major artists including Jimi Hendrix (posthumously, of course), The Who, Iron Maiden, Neil Young, Christopher Cross, Willie Nelson, The Ramones, and many more. Producing the music on the DVDs also opened up doors for other content as I expanded
into producing interviews for the DVD extras, which eventually opened up a new opportunity as executive producer on the television shows Favorite Music of the Stars and Guitar Universe.

The point of my brief personal history lesson is that a producer is always learning new skills, and those skills are transferable across different types of productions, genres of music, and even parts of the entertainment business. Good producers are always organized, in control, and decisive in their actions. They’re able to help realize the vision for the artist, A&R person, studio or network head, or just about anyone else who requires their services. They must be a leader, a diplomat, a therapist, an artist, and a craftsperson all in one.

Which brings me to the difference between an art and a craft. Here’s a little rule that I’ve always lived by:

Art is something you do for yourself.  
A craft is something you do for everyone else.

Unless you are the artist and are producing yourself (not an easy task), always remember that what a producer does is totally for the sake of the artist. The producer’s job is to help realize the artist’s vision, and that’s a craft. The art of production comes in the way you do it!

There have been other books written about production, and many of them are really good. Some focus on one aspect of the profession more than others, and so does this one to some degree (although I tried to keep it pretty well balanced).

One thing that a beginning music producer comes up against is the “Why doesn’t this sound right?” problem. Musically, things don’t seem to gel or they aren’t as tight as they need to be before or during recording. What’s the problem? That’s what I’ve tried to zero in on in this book. I want to give you the ability to solve all those musical problems that inevitably arise with any production, regardless of how skilled the players are.

Just to be clear, determining why a song or a section of a song isn’t cutting it is a skill that almost every successful music producer has to some degree. The only difference is that the ones who are really successful don’t have time to write about it, and most everyone else hasn’t thought about it enough to articulate it. But that is what I do. After writing seven other books (see the bibliography at the end of the chapter) about music, recording, and technology, I like to think that I can explain a difficult, sometimes nebulous topic with enough clarity that anyone interested can grasp it. Hopefully, this book will do just that. Either way, email me at bobby@bobbyowsinski.com to let me know what you think. You might also want to follow my two daily blogs about production techniques (bobbyowsinski.blogspot.com) and the music industry (music3point0.blogspot.com).
Meet the Producers

As with all of my books, this book is made possible by its interviews with pros who are a lot smarter and wiser than I am. Here’s a list of contributors to The Music Producer’s Handbook, all of whose wisdom we could not have done without. The full interviews included at the end of the book are as entertaining and enjoyable as they are insightful.

**Michael Beinhorn.** With credits that range from Aerosmith, Soundgarden, Soul Asylum, Red Hot Chili Peppers, Ozzy Osbourne, Fuel, Korn, and Marilyn Manson, producer Michael Beinhorn is no stranger to music that rocks. But unlike many others who work in that genre, Beinhorn approaches the music with a care and concern more usually associated with more traditional styles of acoustic music.

**Mark Bright.** Enjoying a hit record with his first production (BlackHawk) in 1994, Mark Bright has gone on to become one of the architects of the modern contemporary country sound. With production credits on hugely successful albums by superstar acts Rascal Flatts, Carrie Underwood, and Reba McEntire, Mark blends cutting-edge production techniques with traditional country values and his love of a great song into a sound that’s loved by all music fans.

**Jack Douglas.** Producer/engineer Jack Douglas has worked with music legends such as John Lennon, Aerosmith, Cheap Trick, Alice Cooper, The Who, Patti Smith, and The Band, among many others, and has produced a number of celebrated albums like John Lennon and Yoko Ono’s *Double Fantasy*, Cheap Trick’s *Live at the Budokan*, six of Aerosmith’s best records, and Patti Smith’s *Radio Ethiopia*. He’s also engineered such seminal records as the Who’s *Who’s Next*, *Woodstock*, and John Lennon’s *Imagine*, among many others.

**Richard Feldman.** Featured in my Music 3.0 book for his chops as a music publisher (Artists First Music) and leader (he’s also president of the American Independent Music Publishers association), Richard Feldman has an equally rich history in reggae music production, with credits on projects by artists ranging from reggae stars like Andrew Tosh, Joe Higgs, and Junior Reid to the Congos, I Threes, and Wailing Souls. Richard also won a Grammy Award for his 2005 production of the legendary Toots and the Maytals’ *True Love*. While his non-Jamaican credits are formidable, producing artists such as Keith Richards, Ben Harper, Willie Nelson, No Doubt, Eric Clapton, Bonnie Raitt, and many more, it’s his reggae connection that truly makes him unique.

**Gareth Jones.** Starting his career as an engineer and mixer, Gareth Jones soon made the transition up the ladder as a coproducer with superstar band Depeche Mode. While producing such eclectic acts as Erasure, Can, Madness, Devo, Tackhead, and Nick Cave and the Bad Seeds, among many others, Jones’s high-tech, no-nonsense production approach has won him acclaim and admiration from all
Mark Plati. Based in New York city, the versatile Plati learned production the old fashioned way, first as a musician and songwriter, then later as an engineer. With a long list of diverse credits that range from a host of eclectic unsigned acts to David Bowie, the Cure, Robbie Williams, and Natalie Imbruglia, among many others, Mark has an “open mind” studio philosophy that has kept him consistently on the cutting-edge of modern music production.

Carmen Rizzo. Two-time Grammy Award nominee, electronic musician, and underground darling Carmen Rizzo has parlayed his technical and computer acumen into numerous credits as a producer, mixer, remixer, musician, and cowriter for a wide range of influential artists including Seal, Coldplay, Alanis Morissette, Paul Oakenfold, BT, Tiesto, Jem, Esthero, Ryuichi Sakamoto, Cirque du Soleil, KD Lang, and Pete Townshend of The Who. Based in Los Angeles, Rizzo knows the electronic-music realm as well as anyone, and was kind enough to impart his considerable insight about the world of production for this book.

Not everyone is cut out to be a producer, because it’s just as much about temperament, personality, diplomacy, organization, and fiscal responsibility as it is about the music and technicalities. While this book can’t provide those intangible elements that only you can furnish, it can indeed be a guide to help any size and type of project you produce be a success. Good luck!
The Mixing Engineer’s Handbook, 2nd edition (Thomson Course Technology, 2006). The premier book on audio mixing techniques provides all the information needed to take your mixing skills to the next level, along with advice from the world’s best mixing engineers.

The Recording Engineer’s Handbook, 2nd edition (Course Technology PTR, 2009). Revealing the microphone and recording techniques used by some of the most renowned recording engineers, this book will tell you everything you need to know to be able to lay down great tracks in any recording situation, any musical genre, or any studio.

The Audio Mastering Handbook, 2nd edition (Course Technology PTR, 2007). Everything you always wanted to know about mastering—from doing it yourself to using a major facility—utilizing insights from the world’s top mastering engineers.

The Drum Recording Handbook, with Dennis Moody (Hal Leonard, 2008). This book uncovers the secret of how to create amazing drum recordings, with even the most inexpensive gear. It’s all in the technique, and this book and DVD will show you how to develop it.

How to Make Your Band Sound Great (Hal Leonard, 2009). This band-improvement book and DVD will show your band how to play to its full potential. It doesn’t matter what kind of music you play, what your skill level is, or if you play covers or your own music—this book will make you tight and more dynamic, improve your show, and improve your recordings.

The Studio Musician’s Handbook, with Paul III (Hal Leonard, 2009). Everything you wanted to know about the world of the studio musician, including how you become a studio musician, who hires you and how much you get paid, what kind of skills you need and what gear you must have, what proper session etiquette is required to make a session run smoothly, and how to apply these skills in every type of recording session—whether it’s in your home studio or Abbey Road.

Music 3.0: A Survival Guide to Making Music in the Internet Age (Hal Leonard, 2009). The paradigm has shifted, and everything you knew about the music business has completely changed. Who are the new players in the music business? Why are traditional record labels, television, and radio no longer factors in an artist’s success? How do you market and distribute your music in the new music world, and how do you make money? This book answers these questions and more in its comprehensive look at the new music business—Music 3.0.
PART 1

MUSIC PRODUCTION BACKGROUND
Although the position of producer seems like a modern aspect of the record business, the job has been around from the beginning of recorded music. Through the years, the profession has become more refined in terms of responsibilities, but the job has become more complex as well. To illustrate the evolution of the music producer, it’s best to break the profession into three distinct eras: the early label era, the mature music era, and the independent era.
The Early Label Era

Although recorded music goes back as far as 1857, it wasn’t turned into a business until around 1900. Because of the primitive nature of the recording equipment, the recordist acted as more of an archivist than a producer in that he (it was almost always a man) was just trying to capture the music onto a medium suitable for reproduction. The composers, arrangers, and bandleaders of the day had final say with regard to the direction and style of the music, just as many do today.

Several pioneers of the era, including Ralph Peer and Lester Melrose (more on them in a bit), began recording fewer popular forms of music, preferring instead to target specific audiences with the music they were recording. The producers of this period were part talent scout, part entrepreneur, and part technician, sometimes going on location and holding massive auditions until they found the music that they thought was unique. They were also some of the people who eventually gave the music industry and record-label executives a bad name by stealing copyrights, not paying royalties, and stereotyping groups of people by using terms like hillbilly and race music.
As the music industry matured, record labels began to employ men (once again, they were almost always men) specifically to discover talent, then shepherd that talent through the recording process. These individuals were known as Artist and Repertoire (or A&R) men, and they were the first vestiges of the producer that we know today. Unlike the A&R people of today, who are mostly talent scouts and product managers, A&R people of the mature music era were usually well schooled in music, being talented composers and arrangers themselves, and were in charge of everything from signing an artist to finding songs to overseeing the recording, just as today’s producers do.

But producers began to have more control over production, as magnetic tape became the production media of choice. Now it became easy to have multiple takes, and as 2-, 3-, and 4-track machines became available, the ability to separate instruments in the recording brought a whole new palate of possibilities. For the first time, the producer’s role became as technically creative as it was musical.

Still, producers of the era were little more than label employees, sometimes not even receiving a bonus despite being directly responsible for the success of a label’s artist. This was the norm even in instances when a producer was responsible for bringing in massive amounts of income to the label (as was the case with George Martin producing the Beatles for EMI).
As the technical possibilities continued to soar, so did a quiet rebellion on the business side of production. Even though independent record producers had existed going back to Sam Phillips, Phil Spector, Creed Taylor, and Joe Meek, they all had their own record labels, and it was lot easier to be in control as a producer if you were the label owner, too.

The true revolution began when George Martin left music giant EMI to go independent in 1969. Until then, producers were little more than salaried staff, with no participation in the profits they had such a big part in developing. After having to fight for a small bonus when the Beatles had made EMI literally a billion dollars, Sir George decided to use his considerable leverage to obtain a piece of the action by leaving his EMI staff position and going independent. Soon many other successful producers followed, finally starting to cash in on large advances as well as a piece of their best-selling artist’s pie.

Sir George Martin in a session with the Beatles

But fortunes turned, as they so frequently do. After a while, record labels began to see producer independence as a bargain, because they were able to wipe out the overhead of a salaried position by turning the tables so that hiring the producer became the artist’s expense instead of the label’s. This meant that the label could afford to have the best production talent in the world, yet in the end it wouldn’t cost them a dime as long as the record sold.

As time went on, the producer took a more creative control, becoming everything from a coach to a guidance counselor to a psychiatrist to a Svengali. Some producers such as Holland-Dozier-Holland at Motown and Stock, Aitken, and Waterman in the UK used a factory approach, where the artists
were interchangeable and subordinate to the song. Some, like Phil Spector and Brian Wilson, had a
grandiose vision for their material that only they could imagine until it had been completed. Some,
like Ted Templeman, Tony Brown and Dann Huff, Moby, and Dr. Dre, changed the direction of a
style of music. And others, like Quincy Jones, saved the music industry from itself and started the
longest run of prosperity it would ever see.
All along the way through the history of music production, there have been many producers that I call “game changers.” I call them that because through either their creative vision or the necessity of the situation, they were able to take a genre of music (and sometimes all music) in a new direction, create a different sound, and even sometimes create a level of social change. Here’s a brief description about each of these game changers, listed chronologically by the era when each was working as a producer.
Ralph Peer. A groundbreaking record producer to be sure, Peer produced Mamie Smith and Her Jazz Hounds’ multi-million-selling “Crazy Blues” (reputed to be the first recording made specifically for the African American market) in 1920 for OKeh Records, which was reputed to be the first recording made specifically for the African American market. In 1923 he also produced Fiddlin’ John Carson’s version of “The Little Old Log Cabin in the Lane,” considered the first recording of an Appalachian performer. Peer went on to record both Jimmie Rodgers and the Carter Family in Bristol, Tennessee, in a series of recording sessions that became known as the “Big Bang of Country Music.”

Lester Melrose. One of the first producers of blues records, Melrose was a freelance A&R man and producer who met with success in 1925 with his hits by Tampa Red and Thomas A. Dorsey. He is considered by some to be the father of Chicago-style blues, with most of his recordings made by a small group of session players who gave the music a sound that was a mixture of black blues and vaudeville styles and material with newer swing rhythms. Melrose’s chief contribution was to establish a sound that featured full band arrangements and ensemble playing, a rhythm section similar to what would become a hallmark of the electric blues of the late 1940s, and the small group sound that would later become dominant in rock ‘n’ roll. Among the artists Melrose produced were Sonny Boy Williamson, Memphis Minnie, Big Joe Williams, Bukka White, Champion Jack Dupree, and Arthur “Big Boy” Crudup.

Milt Gabler. Perhaps the first version of what we currently think of as a record producer, Gabler produced many of the giants of jazz in the ‘30s for his Commodore Records. These included Billie Holiday (whose recording “Strange Fruit” was named the Song of the Century by Time magazine), Joe Venuti-Eddie Lang, and Bessie Smith. In the ’40s Gabler worked with some of the era’s biggest musical stars, including Lionel Hampton, the Andrews Sisters, Louis Armstrong, and Ella Fitzgerald. But perhaps Gabler’s most significant contribution to music came in 1954, with his two-take recording of Bill Haley and His Comets’ “Rock Around the Clock,” the song that for many launched the rock ‘n’ roll era.

Leonard Chess. Leonard Chess’s record label, Chess Records, pioneered the electric-blues genres with releases by Muddy Waters, Sunnyland Slim, Willie Dixon, Jimmy Rogers, Bo Diddley, Chuck Berry, and many more. Chess had a documentary style of production (recording equipment was primitive in ‘50s), essentially capturing whatever performance he was given, but his keen ear for talent has influenced generations of musicians and producers since.

Sam Phillips. From his Sun Studio in Memphis, Phillips practically invented rock ‘n’ roll with his recordings by Elvis Presley, Carl Perkins, Johnny Cash, Roy Orbison, and Jerry Lee Lewis. The signature slapback echo he used on all his recordings became the sound of ‘50s pop.
Mitch Miller. During the ‘50s and early ’60s, Miller was head of A&R and producer for the powerful Columbia Records, and oversaw the recording careers of Tony Bennett, Rosemary Clooney, Frankie Laine, Johnny Mathis, Patti Page, Marty Robbins, and Frank Sinatra, among others. Miller produced records under the theory that it was the producer who was responsible for whether a record was a hit or a flop; the artist, the accompaniment, the arrangement, and the material were secondary. Miller also conceived of the idea of the “pop-record” sound, which was an aural texture that could be created in the studio then replicated in live performance, instead of the other way around—a direction that would become the norm in the future.

Chet Atkins and Owen Bradley. The chief architects of the “Nashville sound” of the ‘50s and early ’60s, Atkins and Bradley changed the way consumers thought about country music by stripping away the folkier elements like banjo and fiddle in lieu of lush string sections and smooth background vocals. The two virtually created the genre that we’ve come to know as “easy listening.” During his time as head of RCA Records’ Nashville operations, Atkins (a popular artist in his own right) propelled an entire generation of country stars to fame, including Dottie West, Waylon Jennings, Bobby Bare, Porter Wagoner, Dolly Parton, and Eddy Arnold. Bradley produced such household names as Patsy Cline, Brenda Lee, Loretta Lynn, and Conway Twitty.

Creed Taylor. Probably the most prolific jazz producer in history, Taylor created three record labels (Impulse Records, CTI Records, and Kudu Records) and was an influential producer for the still-popular Verve Records. He is widely acknowledged for bringing major bossa nova artists such as Antonio Carlos Jobim, João and Astrud Gilberto, and Walter Wanderley from Brazil, as well as overseeing John Coltrane’s landmark A Love Supreme and albums by jazz greats Stan Getz, Charlie Byrd, Freddie Hubbard, George Benson, Herbie Hancock, and Charles Mingus, among others.
Jerry Wexler. A partner (along with Ahmet and Nesuhi Ertegün) in the famed Atlantic Records, Wexler was known for his development of black artists during a time when race was an extremely divisive issue in America. He developed an influential stable of seminal artists that included Aretha Franklin, Wilson Pickett, Dusty Springfield, Ray Charles, the Drifters, and later Led Zeppelin, Bob Dylan, and George Michael.
Joe Meek. As Britain’s first independent record producer, electronics genius Meek pioneered the use of many now commonly used studio tools and effects such as compression, reverb, echo, and sampling. He became famous for producing hits such as the Honeycombs’ “Have I the Right?” and the Tornados’ instrumental “Telstar,” the first No. 1 record in the United States that was by a British group.

Phil Spector. The originator of the “Wall of Sound” production technique and a pioneer of the girl-group sound of the ‘60s with the Ronettes and the Crystals, Spector set the trend of producer as songwriter and label owner. The 1965 song “You’ve Lost That Lovin’ Feelin’,” produced and co-written by Spector for the Righteous Brothers, is listed by BMI as the song with the most U.S. airplay in the 20th century. Spector also lent his trademark sound to the Beatles on “Let It Be,” as well as on solo records by Beatles George Harrison and John Lennon.

Phil Spector in the studio

Shel Talmy. An American producer working in England in the ‘60s and early ’70s, Talmy’s major contribution was bringing heavy and distorted riff-based guitar (a sound that’s emulated to this day) to the previously clean British sound. Talmy produced hits such as “I Can’t Explain” for the Who, and the seminal “You Really Got Me” and “All Day and All of the Night” for the Kinks.
Sir George Martin. Known as the “Fifth Beatle,” Sir George changed the face of music production in several ways: first, by becoming a true collaborator with the band by expounding on their ideas and taking them to another musical level, and second, thanks to his considerable leverage caused by the success of the Beatles, by becoming the first truly successful independent producer, a trend in the business that all others would soon follow. The Beatles went on to sell more than 1 billion units worldwide to date, the biggest-selling musical act ever, and by a large margin.

Teo Macero. A producer for Columbia Records, Macero built Miles Davis albums such as Bitches Brew, In a Silent Way, and Get Up With It by using tape editing to turn themes and improvisations into songs. The electric-jazz albums he helped Davis create, especially Bitches Brew, remain—more than 40 years after their creation—best sellers, and some of the most highly regarded jazz albums ever. They’ve influenced musicians of all genres. Macero strongly believed that the finished versions of Davis’s albums, with all their intricate splices and sequencing done on tape with a razor blade (those were the days long before digital editing) were, in fact, the work of art. As a result, he opposed the current practice of releasing boxed sets that include all the material recorded in the studio, including alternate and unreleased takes.

Holland-Dozier-Holland. H-D-H was Motown Records’ leading songwriting/production team of the early to mid-1960’s golden age and was one of the first real production teams in the industry. Utilizing an excellent group of session musicians called the Funk Brothers, Brian Holland, Eddie Holland, and Lamont Dozier took advantage of one of the first musical assembly lines, and wrote and produced more than 25 Top 10 hits, including “(Love Is Like a) Heat Wave” and “Nowhere to Run” (Martha and the Vandellas), “Can I Get a Witness” and “How Sweet It Is (to Be Loved by You)” (Marvin Gaye), “(I Know) I’m Losing You” (the Temptations), “Baby I Need Your Loving” (Four Tops), and “Baby Love” (the Supremes).
Ted Templeman. A staff producer for Warner Bros. Records in the ‘70s, Templeman’s collaboration with Van Halen was responsible for a significant historical shift in rock music, ushering in what is thought of as the modern era of heavy metal/hard rock. He also had a long-standing production relationship with one of the most successful bands of the ’70s and ‘80s, the Doobie Brothers.

Kenny Gamble and Leon Huff. Gamble and Huff developed the “Philadelphia soul” sound that was so popular in the ‘70s, a sound that featured slick arrangements, lush strings, and the disco flavor of the rhythm section. Some of the artists they worked with on their Philadelphia International label included Harold Melvin and the Blue Notes, Teddy Pendergrass, the O’Jays, Patti LaBelle, Lou Rawls, the Jacksons, Billy Paul, and Archie Bell and the Drells. Notable productions include “Me and Mrs. Jones” (Billy Paul), “Love Train” (the O’Jays), “Backstabbers” (the O’Jays), and “If You Don’t Know Me by Now” (Harold Melvin and the Blue Notes), among many others.

Lee “Scratch” Perry. One of the originators of dub, Perry’s influence through his recordings of
Bob Marley and the Wailers, Junior Byles, Junior Murvin, the Heptones, the Congos, and Max Romeo helped spread reggae around the world. All the more amazing was that most all of his recordings were done on a semipro 8-track tape recorder and with marginal audio gear.

**Adrian Sherwood.** If Lee “Scratch” Perry is the creator of dub, Adrian Sherwood can be credited with bringing it to the masses. It is generally acknowledged that Sherwood has produced truly innovative, groundbreaking UK roots music since the late ‘70s, even when the music was no longer considered fashionable.
Quincy Jones. Quincy Jones has had a life full of successes as a writer, arranger, film composer, and trumpet player, but as a producer, nothing tops his run of success with Michael Jackson. Between *Off the Wall*, *Thriller*, and *Bad*, Jackson’s records have sold more than 150 million copies, but a little-known fact is how *Thriller* might have saved the record business from a terrible recession and helped propel the industry to heights unforeseen and undreamed. Forgotten is the fact that by the end of the ‘70s, the record business was in severe recession and the quality of records had slipped badly as artists had become fat and complacent. On the very first day of recording *Thriller*, Q announced, “We’re here to make people want to go to record stores again.” And did they ever, with *Thriller* alone going on to sell nearly 110 million copies worldwide.

Jimmy Jam and Terry Lewis. With their own band, The Time, and clients like Janet Jackson, Usher, Mary J. Blige, Boyz II Men, and Mariah Carey, Jam and Lewis more than anyone shaped the sound of modern R&B, especially with their use of the Roland TR-808 drum machine (an effect that was copied in many musical genres throughout the ‘80s).

Trevor Horn. Known as one of the innovators of modern production through his use of samples and computers at the start of the ‘80s, Horn’s production career in the UK included a string of impressive hits in the ’80s and ‘90, with hit releases from his own band the Buggies, ABC, Malcolm McLaren, Yes, Frankie Goes to Hollywood, Art of Noise, 10 CC, Pet Shop Boys, Simple Minds, Cher, Bryan Ferry, and Seal.

Stock Aitken Waterman. Mike Stock, Matt Aitken, and Pete Waterman, collectively once known as Stock Aitken Waterman, or SAW, were generally despised by the music press for developing a song production-line concept in the ‘80s that was adept at producing successful pop music. Ironically, that is why they should also be celebrated—since they were the originators of the concept in the UK. SAW was responsible for creating hits for Rick Astly, Dead or Alive, Bananarama, and Kylie Minogue, among others.

Tony Brown. By changing the direction of country music from easy listening to a more upbeat, rock-influenced style, Brown ushered in what was to become the “new country” with his work with country superstars such as Vince Gill, Reba McEntire, George Strait, Trisha Yearwood, and Wynonna as well as with favorites like Steve Earle, Patty Loveless, Lyle Lovett, Nanci Griffith, and the Mavericks.

Rick Rubin. Given credit for merging rap and heavy metal, Rubin’s trademark is an in-your-face sound that’s devoid of overdubs such as string sections and background vocals (or, when they are used, recorded with very few effects). He has produced a host of acts, including Johnny Cash, Neil Diamond, the Beastie Boys, Metallica, Tom Petty, and the Red Hot Chili Peppers. Rubin is another producer/label owner, with his Def Jam and, later, American Recordings.

Moby. Richard Melville Hall, aka Moby, was one of the leading electronic-dance-music producers of the early ‘90s, helping bring the musical genre to a wider audience both in Europe and the United States. Moby coupled rapid disco beats with heavy-sounding, distorted guitars, punk rhythms, and detailed productions that drew from pop, dance, and movie soundtracks.

Brian Eno. A pioneer of out-of-the-box thinking and production techniques thanks to his Oblique Strategies cards (see chapter 10 for a complete description), Eno is one of the originators of ambient...
music and an early champion of world music. His production credits include U2, David Bowie, Talking Heads, Devo, No New York, and Laurie Anderson.

Dann Huff. Taking “new country” yet another step toward rock by utilizing rock production values to their fullest, Huff makes rock records that happen to contain fiddle and steel guitar. He has produced No. 1 albums for mainstream country crossover acts Faith Hill, Martina McBride, Keith Urban, and Rascal Flatts.

Dr. Dre. Andre Young (aka Dr. Dre) is credited with creating and popularizing West Coast gangsta funk (G-funk), a style of hip-hop characterized by the use of slow funk groove samples and layered synthesizers. Dre was a member of the seminal N.W.A. rap group and has produced hits for Snoop, Eminem, Mary J. Blige, and his own releases on his Death Row and Aftermath labels.

Dr. Dre (Andre Young)

The History of Music Production

Early label producers were archivists as they captured the music in its native environment.

As music matured, producers worked for a label and discovered talent, found songs, and supervised recording.

Producers went independent to participate in the profits of the artists they produced.
CHAPTER 2

What Is a Record Producer?

As anyone who has ever produced any sort of entertainment project knows, one of the first questions you might get from a nonmusic person is, “What exactly do you do?” or, “What’s a producer?” That’s totally understandable, since producers in music, television, and film take on many roles (some honorary and some deep in the trenches of the creative tasks at hand) yet are mostly out of the public eye.

But music producers, in the most basic sense, are different from their similarly named film and television counterparts (in which a “line producer” and a “coordinating producer” constitute separate and specific jobs), because the producer on a musical project has many job descriptions rolled into one.

**Creative director.** Just like the director on a movie has the overall vision for that movie and is the boss on the set, so is the producer in the studio. The producer sees the big picture in terms of how all the songs of the album will fit together into a cohesive package. But he or she can also control the day-to-day minutiae of how a part is played or even what notes are in the part.

**Diplomat.** The producer’s number one job is to bring harmony to the creative process so that everyone can create at his or her highest level. Although some producers have used terror as a method to get what they want, most successful producers make everyone feel comfortable about contributing and make the environment comfortable and conducive to creativity.

**Decision maker.** A good producer will be the final decision maker in any creative argument (especially one between band members). Even if the producer defers to the artist’s creative vision (which most producers will do), it’s still his or her decision whether to defer or not.
Go-between. The producer keeps the pressure from the record label or the outside world away from the artist or band while the record is being made. In some cases, during a session the producer may speak for the artist with studio musicians, and will generally shield the artist from anything he or she might deem uncomfortable.

Financier. The producer is responsible for the budget, and he makes the deals with the studio, engineer, mixer, mastering studio, rental company, studio musicians, arrangers, songwriters, food deliverers, and anything else that might need to be negotiated for or paid. In some cases, they will also administer union contracts and submit cue sheets.

Casting director. A good producer will choose the right group of musicians who will get the feel that the artist is looking for, which might change from song to song. The producer might even help choose material for the artist that best showcases his or her musical attributes.

Project manager. A good producer knows just what needs to be accomplished in a given amount of time and for a given budget. His job is to turn the project in on time and on or under budget, and he must manage each project accordingly.

The one who “drives the bus.” No matter how or on what level producers are involved, they’re the ones that set the direction for the project. They determine what the artist’s vision is, and they’re the ones that help him or her achieve it, or the producer may even help the artist find it with a vision of his own. Either way, he’s the leader that everyone will follow.

The one who’s responsible. In the eyes of the record label executives and the artist, the success of the project is the direct responsibility of the producer. Although the public will judge the artist on the project, how it ultimately turns out falls squarely on the producer’s shoulders.
Different Types of Music Producers

Music producers fall into two categories: active and passive. Active producers are involved in all of the day-to-day decisions, both creative and financial as outlined above. Passive producers are more laid back and leave the day-to-day creative decisions to others (the artist, engineer, arranger, project coordinator, and so on), usually making a comment only when the project threatens to get off track or in order to break a decision stalemate. While the passive producer gets a lot of derision for not being as hands-on, his contributions are as real and useful as that of an active producer. Sometimes it’s easy for a hands-on producer to lose track of the overall vision because of having to take care of so many day-to-day decisions, while a passive producer can see the forest from the trees.

Producer George Martin (The Beatles) and Linda Perry (Pink, Christina Aguilera, James Blunt) are good examples of active producers who oversee every stage of the recording process, from playing on the record down to arranging the music and overseeing every overdub. Former Producer of the Year Richard Perry (Rod Stewart, Tina Turner, Pointer Sisters, Barbra Streisand) and Kim Fowley (the Runaways) are examples of producers who are more passive, leaving the hands-on part of making the record to people more skilled in specific areas, but being sure to steer the ship back on course if they feel it’s going astray.

While you’ll see more references to active than passive producers in this book, that doesn’t diminish the role of someone who is less hands-on. A producer has a vision for the artist, and while he may not know exactly how to attain it, he knows enough to hire others that do. But without that vision, the ship would be rudderless in the big musical ocean.
I don’t remember who I heard it from, but the following question and its answer are really true. They go like this: “How do you know when you are a producer? When you have a client.” Meaning that as long as someone believes you can do it, then you’ve joined the production ranks. And while becoming a producer can sometimes follow an improbable path, usually there are two career tracks that take you there: being either a musician or an engineer.
The way a musician becomes a producer is by spending a lot of time in the studio and learning what works and what doesn’t, by either trial and error, through a mentorship with a successful producer, or by constant observation as a session musician or as an artist or band member making a record. And if you’re a musician who has risen to that level as a player, it’s a good bet that your musical taste and sensitivity are already highly developed and the jump into production will be short.

Of these three ways, the mentorship is usually the fastest way to reach your goal by virtue of the fact that you’re learning from someone who’s successful on some level, and you can follow many different projects from beginning to end. The diversity of the projects you work on is important, since the production approach can vary greatly from artist to artist and musical genre to genre. A mentorship also has the advantage of the possibility of your being handed a project once your mentor feels you’re ready, or when he’s so busy that you get to be the day-to-day producer while he stays on as executive producer.

The next-fastest way to learn how to produce is by observation as a session musician. While you usually can’t follow a project from start to finish, you get a chance to work with a number of different producers and artists so you can absorb different styles and techniques. This usually takes longer than a mentorship, and it’s harder to break in as a producer since you’re thought of as only a musician for hire.

Being an artist or playing in a band that works with a great producer is another way that you can learn the ropes. The advantage here is that if you have enough success to record several records, you’ll have the advantage of working with different producers or even the same one several times. Another advantage is that you’ll get to follow the project and interact with the producer all the way through it.

Being a songwriter usually means that you’ve developed pretty good production skills along the way, since you always want to present your song demos in the best light. Many songwriters hear the final version of their song in their head and won’t rest until it’s recorded that way. Phil Spector, Mutt Lange, Linda Perry, and Brian Wilson are examples of songwriters who are mega-successful producers. Quincy Jones is an example of an arranger and writer who became maybe the most successful of all time, considering the record sales of Michael Jackson alone.

The trial-and-error method takes the longest time by far, but it can lead to the most success. That’s because if you spend enough time experimenting, you will not only determine what works, but you might also develop an unusual sound or direction in the process. Once upon a time, it was nearly impossible to learn this way (unless you were really rich or lucky) because the cost of making a record was so high. But now, that virtually everyone can have a studio in their home for so little money, learning this way is more possible than ever. The problem is that if you’re not in a big media center or have no access to people who can help you when you have a question, it can take what seems like forever to learn. Hopefully, this book will provide some basics to cut that learning curve down a bit.
Engineering has been a long-standing farm system for producers for many of the same reasons as musician-producers, developing many who have found widespread production success, including Glyn Johns (The Who), Phil Ramone (Billy Joel), Hugh Padgham (The Police), the late Jerry Finn (Green Day), and Jimmy Lovine (Bruce Springsteen, Patti Smith), among many others.

Engineering is the perfect learning ground for becoming a producer for several reasons. First, an engineer is able to see many different projects through from beginning to end, which enables him to participate in all aspects of the project. Second, an engineer works with a multitude of artists, producers, musicians, and bands and can glean something from them all. It’s that depth of information and experience that is most valuable. Lastly, an engineer can frequently become the preferred guy of a successful producer, which becomes an unofficial mentorship and can later lead to referrals.

While engineering can be a career stepping stone to producing, it can take a long time and there’s no guarantee that your break will happen, especially if you’re not working with “name” clients and producers. Also, most of the engineers who cross over to production have some type of musical training, with many of them being accomplished players. That experience gives them both the technical and the musical skills required to make the jump.
There is another way to become a producer, and that’s to declare yourself one, find an artist, and pay production costs out of your own pocket. Rich entrepreneurs, athletes, and drug dealers try this way, and usually fail. Artist managers and attorneys try it, thinking they know something because they’re in the business, but usually fail. Concert promoters, club owners, radio personalities, and DJs try it and usually fail. They fail because producing music takes more than just liking music or having disposable income. We’ll cover the skills and techniques later in this book, but know that being successful takes a lot more time and hard work than most people realize or are willing to put in.
Regardless of your experience, capabilities, and ambition, you still need an artist or client who trusts you enough with their project to let you produce it. Having a client is what makes you a producer in the first place, although your talent and experience will make you a success at it. So how do you get a client?

The time-honored way to break into production is to discover a young artist looking for a break. If you’ve been coming up through the ranks by working in the various capacities above, you can probably ask for a favor of having some musical, arranging, and studio help to get a short project recorded. Or you can pay for it out of your own pocket. Either way, you can be on your way at that point, or not.

An artist or a band member who meets with some music-business success usually has a pretty good head start into the production world by virtue of that success. If you find an artist you want to produce, a record label is usually inclined to let you do it, figuring that your success might rub off on the new artist. Sometimes they’ll let you do it just to keep you happy.

Success on any level will tend to rub off on you and make it easier to find a project to produce. A songwriter, musician, engineer, or others in the business are much more likely to be referred to do production work if they were connected to a hit (the bigger the hit, the easier it becomes). It’s a sad fact that it happens this way, and it sometimes bestows undeserved opportunities on the undeserving, but that’s the way the business works.

The Ways to Become a Producer

Have a mentor.

Observe as a session musician.

Be an artist or be in a band that works with a great producer.

Learn by trial and error.

Gain experience as an engineer.

Have a client that lets you produce a project for one of your engineering clients.
What Are the Responsibilities?

The producer has a number of responsibilities, all of which we’ll go over in more detail in upcoming chapters. But to summarize, they include the following:

**Financial.** The producer is responsible for the budget and is charged to stay within that budget to finish the project. Sometimes the producer is asked to determine what the project will cost ahead of time, before the money is allotted. Although he may not sign the checks for the expenses personally (the record label, client, or artist management might do that), he must sign off on all invoices and purchase orders.

**Political.** The producer must keep the peace between all parties in order to make the mood conducive to creating. This means trying to alleviate any tension between band members, the artist and the label, the artist and management, and the artist and anyone else who might cause undue strife (session musicians, rental companies, management, a boyfriend, a girlfriend, a wife, a husband, or the pizza delivery guy). It’s a tough job, but someone’s got to do it.

**Creative.** The producer is responsible for making the project the best that it can be musically. This means picking the best material and making sure that the material is arranged well, the technical and musical standards are high, and the product will satisfy the artist’s current fan base and attract new fans—no small job in itself.

**Project management.** The producer must bring the project in on time. This means that a great number of mini-events and moving parts must be coordinated throughout the project, from booking studio time on days off to arranging rental gear to keeping MP3s from leaking before the release date. Because there’s so much to think about, many successful producers employ dedicated assistants or project coordinators to handle the many small tasks and general busy work.

### Responsibilities of a Producer

- Manage the finances.
- Keep the peace.
- Be the creative force.
- Manage the time.
Who Do You Work For: Artist or Label?

Who does the producer work for: the artist or the record label? The answer is usually both, but not necessarily. If that’s too vague an answer, remember that here your allegiance lies is an age-old producer question. I believe that your loyalty should lie with whoever hires you.

Once upon a time, it was the record company that paired the artist with the producer, in which case the producer became the steward of the project for the label. This model is still used with record-company signings of untested artists (known in industry parlance as a “baby artist” or a “baby band”). Even though the artist ultimately pays for the producer’s services (more on that later), the producer is hired by the label, and if he ever hopes to be hired again, then the primary level of client satisfaction needs to come from primarily the label.

These days, the decision as to who to select to produce a project is usually a mutual one between the artist and the label, with the artist making the primary request and the label approving, if they’ve worked with them before. In that case, it’s an even tougher decision as to who to please first, and a good producer toes the fine line between commerce (his future work) and art. Ultimately, if the artist isn’t pleased with the work, then you probably won’t work with him again anyway. And after all, it’s his or her art, not yours or the label’s, so unless you are specifically brought on by the label, art takes precedence. We’re back to the diplomacy thing again, trying to make everyone happy.

Actually, in the modern music business (see the listing for my book Music 3.0 on page xiii), in which an artist deals directly with his fans, it’s become increasingly the case that the producer works solely for the artist, since many times a label isn’t even involved with financing the record. The artist hires you to facilitate his vision in whatever way possible. That might mean simply giving your opinion when asked, or it might mean handling everything down to writing chord charts and lead sheets for the musicians—but his vision must be upheld.
Production starts and stops with the client, because that’s whose vision you must realize and execute. The client can be an artist or band on a record, a songwriter on a demo, an ad agency for a commercial, or a record label wanting to capture an artist in a certain way. Regardless of whom you work for and with, music production can be broken down into a few areas of execution that I’ll call the elements of music production.

There are four elements involved in music production (in almost any kind of production, really) that a producer must be familiar with. Usually a producer is a master of at least one of the four, but most producers are experts in all four: the creative, the financial, the project-management, and the political elements.

The creative element is what everyone usually wants to know about, and so most of the rest of the book is dedicated to it. The financial element is important and nuanced enough that it deserves its own chapter, as does the political element, which leaves us with project management.

CHAPTER 3

The Elements of Music Production
Project management is the one element that usually slips beneath the radar of most budding producers, but it can easily break you if you don’t pay attention to it. Project management consists of the planning, organizing, and managing of the resources necessary to the completion of the project, be it just one song, a cue or jingle, or a full ten-song album.

Most projects, even those of superstar acts, have a timeline that must be followed, since the days of open-ended recording are pretty much over. This means that all the time elements of your project have to be planned out well in advance, with a little leeway built in as needed.
Managing both project time and people time is one of the more difficult jobs of a producer, since it involves a lot of educated guessing. You never really know exactly how much time any one segment will take, but you do have a general idea if you’ve done your production homework. So how do you figure out how much time you’ll need? Just like any project in any company, you make a timeline that includes specific milestones, while leaving a little leeway in case the unforeseen happens.

▶ **Take stock of the situation.** Let’s say that the record label wants to have the project on October 1, and you’re coming in on the project on May 15. There’s no way that you can determine just how long each project segment will take until you evaluate the songs, listen to the demos, listen to any previous recordings, hear the artist or band live or in rehearsal, and generally get a good feel for what’s possible and how much will need to be fixed or tweaked. This evaluation period might take a week or two, but it could be compressed into as little as a day if necessary, depending on your experience in these situations and the quality of the songs and players.

▶ **Approximate how long each project segment will take.** After you evaluate the artist’s or band’s songs and get a feel for the arrangements and how well the artists play them, you can determine how much preproduction time it will take to get everything into shape. You might determine that you’ll need a month of preproduction because the arrangements are weak, or maybe just a few days for some song tweaks. If you don’t have that kind of time or the artist is resistant to more rehearsal, then you’ll have to allot more time for basic tracking—maybe an extra day for each song—instead of the one-to-three songs per day that you might expect if everything is finely tuned.

During preproduction, you’ll also get a feel for what kind of overdubs you’ll be doing and what kind of time for experimentation you’ll need. Unless most of what you’re recording during tracking is a keeper, you should plan on spending at least a day for each instrument to do all the overdubs. This means that you’ll record all bass fixes for all the songs one day, one day for guitars, one for lead vocals, and so on. If you have more time and your budget permits, you would stretch that out to a day to record the lead vocal for each song (ten songs in ten days), a day of guitar fixes from the basic tracks, a day for guitar overdubs, a day for guitar solos, a day for background vocals for each song, a day for percussion for all songs, and so on. Ultimately, overdub time will be determined by the number of overdubs that you have in mind, their difficulty, and the skill sets of the players and singers. Having better players means being able to do faster overdubs.

▶ **Develop your milestones.** First, work backward from your delivery or completion date. You now plug in the time allotted for mastering, mixing, doing overdubs, tracking, and having preproduction. From there you can put in your milestones for completion. The following schedule gives an example of how to do this:
Notice the extra days in between preproduction and tracking, tracking and fixes, lead vocals and background vocals, background vocals and percussion, plus the extra days built into the schedule. This is to make sure that there’s plenty of leeway should something take longer than anticipated or unforeseen circumstances arise.
A fairly large project usually requires numerous rentals of both long and short term. The trickiest long-term rental is always the studio, since if you don’t complete what’s needed on time, then you’ll have to move somewhere else if the studio has another client booked after your booking has run out. This can be a royal pain, since it means tearing everything down and setting up again, and losing time and momentum (which will undoubtedly alter your sound) in the process.

Studio time is broken into five categories:

- **Preproduction.** This stage is the place to work out material before hitting the high-priced studio (or any, studio for that matter). Preproduction can take place in a garage, a bedroom, or a rehearsal room and can last from as little as a day to a couple of months (see chapter 7 for more on preproduction). Having a long preproduction schedule usually occurs when working with artists or bands that write their own songs and are fairly early on in their careers, since their songs and arrangements may require a fair amount of tweaking. Artists and bands that are further along in their careers usually have a greater sense of arrangement and have become sophisticated enough musically so that the preproduction phase is kept to a minimum. There is no preproduction for commercial, movie, or television scores because the composer/arranger has things pretty well worked out, and the musicians are skilled enough to learn or read the music on the spot.

- **Tracking.** Sometimes called “basic tracks,” tracking usually consists of recording just the rhythm tracks, although in certain situations it can mean the entire band. The rhythm tracks can consist of only the drums, only bass and drums, or only drums, bass, guitar and/or keyboards, and can last anywhere from a single day to months, if there’s no preproduction (see chapter 9 for more on tracking).

- **Overdubs.** Overdubs consist of recording at least the lead vocals and/or any kind of solos and lead lines that the song requires, but it can also mean overdubbing layers of guitars, keyboards, horns, strings, percussion, and background vocals. The overdub phase can last anywhere from a day (in very rare cases) to months or even years (again, in extremely rare cases). Overdubs may take place in the same studio as the tracking does, but in these days of smaller budgets, it’s now common to go to a smaller, cheaper facility (or a free one owned by the producer, engineer, or band member). Overdubbing is also the most difficult portion of the project for which to gauge the time, since it can vary widely (see chapter 10 for more on overdubs).

- **Mixing.** It used to be pretty easy to determine how much time was required for mixing in the schedule. Alloting a day to a day and a half per song was pretty standard, especially if you used an A-list mixing engineer. Now, however, with recall and automation on mixing consoles, and being able to mix “in-the-box” in your DAW, it’s easy to bring back a mix exactly from where you left it. While that seems as though it should lead to faster fixes, more time is spent mixing than ever—a result of trying to make every last tweak possible. It’s still best to figure a couple of days per mix if you’re mixing in a studio with an analog-style console (see chapter 12 for more on mixing).
Mastering. The mastering phase is the easiest to gauge, because it usually takes only a half to a full single day to complete an entire album, regardless of the number of songs. In rare cases (and with big budgets), mastering can turn into a multiple-day affair or even involve using a couple of different mastering houses, but that isn’t the norm.

Short-term rentals can include everything from reverbs and outboard gear to keyboards, guitar amps, and microphones. Just about anything you can think of can be rented these days. Rentals usually go by a daily, weekly, or monthly rate. The weekly rate is based on a four- or five-day week, depending upon whom you rent from. This means that if the rental is $100 per day, you pay only $400 for the full week (if based on a four-day week). The monthly rate is usually based on a three-week month, which means that if your rate were based on a $400-per-week rental, it would cost $1,200 for the month instead of $1,600 (see Table 3.1).

<table>
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<th>Weekly</th>
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<tr>
<td>Neve 1073 mic preamp</td>
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Table 3.1: Equipment Rental Rates
A producer has to manage not only project time but also the time of the people he’s working with. For instance, if the engineer that the producer prefers to use can’t be available for the tracking dates, he has to either reschedule to accommodate the engineer or find a replacement for him. If the lead singer is unavailable for several of the planned lead-vocal overdub days, the producer has to reschedule them and put something else in their place to stay on schedule. If studio musicians are to be hired, he has to find out when the best people for the project are available, and work around their schedule.

This adds yet another layer of complexity to scheduling and project management, but it comes with the territory of being a producer.

**Project Management**

Develop a timeline.

Develop your milestones.

Manage your long and short term rentals.

Manage the participants.
The creative elements that a producer is required to bring to the project can be few or many, but usually many. He must bring taste, musical expertise, and a keen ear for what works and what doesn’t. In fact, this aspect is so broad that we’ll spend nine chapters on it in this book (see chapters 5 through 13).
One of the main jobs of a producer is financial, and this is broken into two categories: the producer’s deal and the budget. There are many ways that a producer can get paid and many nuances to those ways. Handling the project budget also requires a deft hand in making sure there is enough money allotted to accomplish recording the project to everyone’s satisfaction. Like the creative aspect of production, the financial aspect is detailed enough to require its own chapter (see chapter 4).
Unless you’re dealing with a singer-songwriter in his or her own studio, every project is filled with multiple, diverse personalities. Some of these people are level headed, reasonable, and professional, while others (hopefully not many) are childish, divalike, and spoiled, always wanting their own way. As the producer, one of your main jobs is get everyone to work in as much harmony as possible, mediating any arguments and channeling any resentment or hard feelings into a great performance. This job alone could be full-time but it just comes with the territory of being a producer. (See the beginning of chapter 11 for more about the diplomacy aspects of production.)
Like it or not, music production is a business on just about every level, and taking care of the business end is an essential element of a producer’s day-today operations. Therefore, let’s take a look at the essential business elements and some typical deals, as well as the question that eventually comes to the forefront of every producer’s mind: “How do I get paid?”
Over the years, the deal that a producer can cut for him- or herself has varied greatly, depending upon the health of the industry and the times we were in.
As stated earlier in this book, during the ‘50s through the end of the ’60s, most producers were employed directly by the record label and were paid a salary that might contain a year-end bonus option and little more, despite how well the records sold. In fact, George Martin’s productions with The Beatles sold hundreds of millions of units and made more than a billion dollars for EMI in the ‘60s, and he never saw a piece of it; in fact, he was even passed over for a bonus one year.

Martin eventually took the bold move to become an independent producer in order to take financial advantage of the cash cow he spearheaded. In doing so, he blazed a trail for all producers thereafter. Most producers today are independent, meaning that they’re not a salaried staff member of a record label, as a result.

But Sir George wasn’t the first producer to make money on the basis of an artist’s success. Snuff Garrett, a producer and A&R man for the old Liberty Records of the ‘50s and ’60s, is credited with getting the first producer’s royalty, even though he still remained a salaried employee of the label. After much success with artists such as Cher, Sonny and Cher, Bobby Vee, and Bobby Vinton, Garrett convinced the owner of the label to pay him one cent on every record sold, which—considering that the records were selling by the millions then—gave him a pretty nice override.
A typical producer’s deal on a major-label release is based on a percentage of sales (called *points*), which amounts to a royalty payment, and an advance against that royalty payment.

The typical deal calls for the producer to get three points (or 3 percent) of the wholesale cost of the record. A hot producer might get 4 points, and a superstar producer might get as many as 5, but 3 is the norm. This means that if a CD is wholesaling for $10 (just to make it easy to compute), the producer gets $0.30 from every unit sold if he or she is getting 3 points. But this figure can be deceiving, as we’ll soon see.

As for an advance against later royalties from the project, a new producer might get $2,000 to $4,000 per song, while a superstar producer with a superstar act might receive as much as $25K, or even more, per song.

While this sounds like a lot of dough (and it is), there are numerous accounting games that are played by the labels to take what seems to be a windfall and diminish it substantially.
Who’s Paying?

In order to determine how much you can make, you have to understand that it is ultimately the artist who is paying you. That means if the artist is getting 12 points, you’re getting 3 of those 12. Before you can get paid, the artist has to recoup any advances received before you see a dime.

Let’s say that the record label gave the artist a $100,000 recording fund to make the record. A fund is a lump sum that is given directly to the artist, who must then deliver a record for that amount. The advantage of a fund is that if the project comes in under budget, the artist gets to keep the excess. The fund amount of $100K is considered an advance, and it must be paid back before you or the artist see any additional funds. Here’s how that works out:

\[
\frac{$100,000 \text{ advance}}{\frac{12\% \text{ of a theoretical $10 wholesale}}{1.20 \text{ per record}}} = \frac{83,334 \text{ units}}{}
\]

So you won’t see another dime until unit 83,335 units have been sold. However, a common stipulation in a producer’s contract is that once the artist recoups the cost of the advance, the producer is to be paid all the way back to record number 1 (which is a negotiating point that isn’t normally granted to an artist). This means the following:

\[
83,335.00 \times \frac{0.30 \text{ (3% royalty)}}{\text{royalty payment}} = 25,000.50
\]

You’ll get a check for the above amount, minus your advance (which we’ll say is $10,000):  

\[
\frac{25,000.50 \text{ (3% royalty)}}{-10,000.00 \text{ (advance)}} = 15,000 \text{ (royalty payment)}
\]

The band doesn’t have this same deal—so take notice because if you’re not careful, neither will you. The band receives a royalty for any record sold after unit 83,334. If your contract states that’s how you get paid (instead of from record 1 after recoupment), you just lost 25 grand.
With the Music 3.0 stage of the music business, in which the artist doesn’t need a label because he or she can market directly to their fan base (see my book Music 3.0: A Survival Guide for Making Music in the Internet Age for more information), the old business model doesn’t work anymore. It’s just as likely that the artist, in an effort to make money on touring and merchandise, will give away the product you worked so hard on, so you can’t count on royalties anymore. Therefore, the new deal is either to get as much money as you can get up front, or to take some piece of the action, such as a piece of the publishing of the songs you work on.

Producers have always tried to control a piece, if not all, of the artist’s publishing, and it’s only been since the ‘80s or so that artists’ attorneys have fought to keep it from the producers. If you recall, in chapter 1 we covered the early years of record production, which were particularly brutal on songwriters and artists. Producers, label owners, and industry execs who knew the ropes of how the money was made did everything they could to grab what rightfully belonged to the artist and, as a result, gave the industry a black eye and a bad name as a result. So it’s not surprising that when a producer brings up publishing ownership that the artist immediately runs for the hills.

But the state of the business has changed a great deal since then. Record sales are at an all-time low (down by more than 55 percent since the year 2000 alone), and so when a No. 1 record on the charts might sell only 50,000 units (as is frequently the case), the producer can’t hope to ever be properly compensated for the time and expertise it takes to make a hit record.

Add to the above fact that advances and recording budgets are at an all-time low. Whereas a typical budget for a medium-selling act might have been $250,000 at one time, you might be lucky to get $80,000 in today’s financial climate. While a producer’s advance might have been $10K per song previously, now you might be lucky to get $10K for the entire project of a young artist. The money from producing a label act just isn’t there for a producer anymore. And while an act might still be making good money touring and selling their own branded merchandise, that’s no consolation for the producer, who never sees a dime from any of those items.

That’s why publishing has become such a big deal, especially with a new act. The publishing business is still the one area of the music business that is somewhat healthy.

So what does a producer ask for? With a new act that can’t afford a large advance, a producer might ask for 5 percent of the writer’s portion of the publishing for the songs that the producer works on. This way, there’s at least some possibility of getting paid down the road if the song has any success or airplay. Keep in mind that this will probably be acceptable only to a “baby” band or act, since an act with some success will be able to pay a higher advance to compensate, instead of giving away the publishing.
What if the members of a local band ask you to produce them? What do you charge if they’re not attached to a label? There are a number of approaches you can take, although none will have you retiring to the Bahamas anytime soon. You can do the following:

▶ **Charge a flat project fee.** How much should that be? So much depends on the type of project, how many overdubs you’ll need, the artist’s or band’s competency, the artist’s or band’s income level, and the number of songs they want to record. A jazz or blues band that has 20 songs will usually take a lot less time to produce than a pop band with eight will because of the layering that’s normally required with pop music. And if the band has a marginal player or two, that can almost double the time spent just in trying to get their parts to match the skill level of other players (unless you can persuade the rest of the band to use a session player instead).

A flat fee is the least desirable way to get paid, because projects have a tendency to go a lot longer than anticipated and will drag on and on when the artist realizes that you get paid the same regardless of the time spent. If the flat fee is the easiest or only way to get the gig, then that’s what you’ll have to do. Otherwise, avoid it if you can, unless you’re very well compensated.

▶ **Charge a per-song fee.** This approach is better than the flat project fee, but not by much. The per-song rate has all the same problem areas as the flat-fee approach, with the exception that it can sometimes cause the artist to scale back from recording 15 songs to 10 (even though it’s a hit in your pocketbook). You won’t have to worry about the artist wanting to record an extra song at the last minute or suddenly wanting to complete a track originally deemed too weak after basic tracking. With a per-song rate, if any additional songs are recorded, then you have to get paid.

▶ **Get paid on spec.** Getting paid on speculation or “spec” is the approach that most fledgling producers must take when starting their careers. The deal is that if the artist or band “makes it” (meaning they get signed by a label and get an advance), then you’ll get paid your project fee, points, or both. The chances of that happening are always long no matter how much you believe in the act, so be prepared to spend your time working for free. The one good thing here is that you’ll be gaining experience.

If you’re going to work on contingency, you’ll need to get two things from the artist or band. The first thing is to strike a larger deal than what your normal rate would bring; you need to earn more money to make it worth your while, since you’ll be working on spec. That could be anywhere from 20, to 50, even 100 percent more—whatever you can negotiate. You can justify the higher rate by saying, “I’m providing a lot of valuable time and expertise that you’re not paying me for right now. Maybe it’ll take a long time to see this money, or maybe I’ll never see it. That’s worth an extra premium.”

The second thing to get is an agreement stating the terms of how much and under what circumstances you’ll get paid. While you should go to an attorney to get this drawn up, that can cost
you money you either might not have or don’t want to spend on a project that may never pay off. Even if the agreement is only a single page long, be sure to get it in writing because people tend to forget or remember differently over time, and it pays to have something on paper. At the very least, write down which songs you’ve worked on (or are going to work on), the dollar amounts agreed upon, the time frame in which you’ll be paid (for example, “30 days after signing a major- or indie-label agreement”), and how you’ll get paid (for instance, “in full by cashier’s check”), just so no one forgets. This agreement may not be legally binding and may have plenty of holes that a high-priced lawyer could drive a truck through, but if the people you’re dealing with are on the up-and-up, you’ll at least have a piece of paper to remind everyone of your contribution to their success and how you all agreed you’d be compensated.

▶ **Charge an hourly rate.** As long as you can get paid, this arrangement is the safest way to go. When, for example, you inevitably spend that extra week on overdubs or mixing, you’ll get paid for the time you put in. The hourly rate keeps people focused and stops them from adding those extra five overdubs “just to see what they sound like,” or from trying ten more takes when you all agreed that the third take was great.

▶ **A combination of the above.** Many times payment can consist of a little bit of money or a little bit of spec, some items at a flat rate and some at hourly, or some combination. Try not to get too complicated. A simple deal works best for everyone, especially when it comes to getting paid. just realize that there are a lot of options available.

There are a lot of good books on the subject of how to structure a deal for yourself that are more comprehensive then what was just laid out above. Even if you decide not to read them, get an attorney if you will be earning any money more than what the attorney will cost. At the very least, always get it in writing.

### The Producer’s Deal

- What’s my advance?
- How many points?
- Who’s paying?
- When do I get paid?
- Is there another way to be compensated?
The Budget

Handling the budget for a recording project can be one of the most challenging aspects of being a producer. Regardless of who’s paying for the project, it’s up to you to not only draw up the budget but also spend the finances wisely.
If your artist or band is signed to a label, most likely they’ll say, “We need you to bring this project in for xxx dollars.” That makes your life a bit easier, since that will give you a major parameter to work with, so you’ll just try to fit everything into the financial box that you’ve been given. But most likely, your project will start with the words, “What do you think it will cost ...?” That makes your job a lot more difficult, since you’ll need to gather up a lot more information before the question can be answered. Assuming that you’re already familiar with the artist and her material, here’s what you’ll need to find out:

- **How many songs?** The more songs, the more time you’ll need to complete the project. The more time, the more money it will cost.

- **How will the project be released?** If the final release will be in a CD or vinyl format, you’ll have to figure additional mastering costs as well as a sequencing session to test the song order. If the release is intended only for online distribution, that will also impact your budget, because there won’t be any income from the product to recoup the costs.

- **Will the costs of manufacturing be included in the budget?** A neophyte artist, band, or record label sometimes includes the entire cost of manufacturing the final product (CD or vinyl) in the recording budget. This is not the case with a more established or experienced entity, which recognizes that manufacturing is a burden not charged to artist. Regardless, including the manufacturing costs in the budget can put a serious ding in the amount of money you have for recording, so it’s best to get the answer to this up front.

- **Are mastering costs part of the budget?** Sometimes mastering is seen as the first part of manufacturing and is not charged to the production budget. If that’s the case, find out if you’re responsible for mastering, even though it shouldn’t be part of your budget.

- **What kind of sound or direction are you looking for?** The answer to this question will determine whether the band members will play together in the studio or the parts will be layered, and whether studio musicians will need to be hired, a large tracking room will be required, or exotic musical instruments or recording gear must be rented, all of which will impact the budget.

- **What kind of facilities are you comfortable recording in?** This determines the environment and the type of studio that the project requires. Some artists don’t care how lowbrow the studio is as long as the final product is what they’re looking for. Other artists have to be in a top-notch facility that caters to their every whim in order to perform well. And yet other artists have a certain facility that they’re particularly comfortable working in. The answer to this question may impact your final budget more than anything.

- **Does the budget include my fee?** This question is somewhat moot if you’re going to be working on spec, but if not, its answer can have a large impact on your budget. Regardless of who’s paying the bill, you’ve got to know how much you ultimately have to work with to be able to produce the product.

- **Are you sure you don’t have a budget in mind?** Most artists, bands, neophyte labels, and financiers have a figure in mind before they even speak with you, but are afraid to tell you.
because they don’t want to look as inexperienced as they are. It’s best you learn what that figure is as soon as possible so you don’t do a lot of budget-development work only to find out that the artist had just a fraction of the amount to spend in the first place—or, even worse, to find that you left money on the table that could have been used for production.
Budgets vary wildly depending on the previous success (or lack of success) of the artist; the strength, size, and priority of the record label; the cash available to the person writing the check; and even where you are recording. Still, it helps to know what is considered to be a budget norm for the type of project you want to do so that you don’t have to reinvent the wheel.

There was a time in the music business, before online music became prevalent, when a newly signed baby act might get between $150K and $250K to record their first album. Acts further up the success ladder received larger budgets well beyond that. Although it’s still true that the more success you have, the larger your budget will be, those days are long gone, with the norm now somewhere between $50K and $80K for a baby act.

For most of you reading this book, $50K seems like a lot of money, but it’s really difficult to make a great record in a first-class studio with a great engineer for that amount. As a result, most producers of label acts have resorted to many of the tricks you’ll find covered in this book, like having a lot of preproduction, tracking in a large studio for a limited amount of time with a great engineer, then doing overdubs in a home studio with an assistant engineer.

But unless you’re signed to a label, you probably won’t have anywhere near $50K available to you for your project. Not to worry, you can still do something great for $5K, or even a lot less, like some of the early punk records. Just know that whatever your budget, you can make things work with a little planning.

Here’s a typical $50,000 budget for a band that just signed with a subsidiary of a major label (see Table 4.1). They want to record an eight-song album that will be released on CD and online. The first thing to do is to schedule ten days for rehearsal: one day to listen to all the material that the band has, and then pick from them the possible songs to record; one day of rehearsal for each song chosen; and an additional day to work up some alternative songs in case one of the eight just doesn’t fly in the studio.

Next schedule five days for tracking, assuming that you can complete two tracks a day, with a half day for setup and another half day for leeway in case one of the songs just won’t come together. For overdubs figure about 2 days per song, for a total of 16 days, but break that into 4 days for lead vocals (two vocals per day), 2 days for background vocals, a day for miscellaneous overdubs (percussion and a horn section), 4 days for guitar overdubs, 4 days for keyboard overdubs, with an extra day in case it’s needed.

For additional overdubs, you’re bringing in a four-piece horn section, three of whom are getting paid a union rate of $373 for a three hour session, with the leader being paid double. Also say that you’re going to bring in a top-of-the-line percussionist to fill out the track at a double scale of $745. The percussionist asks you to pay the cartage fee of $125 for his vast array of percussion gear. The union requires that you pay 11 percent of the session pay rate into a pension fund, and an additional $22 per player into a health-and-welfare fund. Finally, say you hire a background vocal section consisting of three female singers. They are nonunion and charge $150 each for the session.

For mixing, plan on spending a day for each song (eight days), with another four days for a series of tweaks or remixes as necessary using an engineer who’ll be mixing in his home studio. Finally, you’ll want to master at a high-level mastering facility that will give you a deal (about half off)
because you’re using off-hour time and you’re not using the top guy.

The producer’s $5,000 advance comes out of the budget, as well as $500 for the label’s hottest artist to come play a guest guitar solo on a song. One of the songs has a sample of a minor hit from the ‘80s, and the publisher gives you a super deal so that you can use it for an advance of only $1,000.

With five people in the band, a road manager, a recording engineer and an assistant, and a producer and production assistant, there are ten people that have to be fed every day. Figuring a lowball figure of $10 per person per day for a total of 42 days (all the production days), the total comes out to $4,200 just for food. Of course, all ten people will not be in studio on all of the days, which makes this part of the budget stretch a little.

A Neumann U-67 large-diaphragm condenser mic fits the lead singer’s voice perfectly, so you rent it and a couple of Neve 1073 mic amps for the five days of tracking and five days of overdubs. You also need to buy three hard drives (one for daily use, and the others for backup) and a spindle of 50 CD-Rs for refs (test CDs to track your progress).

Say you’ve managed to get a pretty good engineer for basic tracking who’s charging only $500 a day since business is slow. He’s throwing in his rack of microphone preamps and reverbs, but asking that you pay the $200 cartage fee. You’re using an up-and-coming engineer to help engineer the overdubs for $250 a day. Finally, a pretty good mixer is giving you a bargain at $500 per day for his services and $250 for the use of his studio.

The budget you’re working with has provisions for travel and auto expenses in case that’s required, although there is none on this project. You also figure in a 10 percent contingency in case of any unforeseen expenses, like needing an extra day of tracking, overdubs, or mixing.
Table 4.2 shows much the same circumstances in that a band wishes to release an eight-song CD and post their music online, but this time the band isn’t signed to a label and is financing the project with their own money and money from some investors. Everything has to be done on as tight a budget as possible.

This time, the ten days of rehearsal are done in the garage of one of the band members for no cost. Five days of tracking is done in the best studio in the area, which costs $350 a day. All 16 days of overdubs are done in the home studio of one of the band members. The best engineer in the area
agrees to mix the record for $500 a day (including the charge for the studio), and mastering is done at a midlevel mastering house.

There’s not enough money for a horn section, so it’s done with samples from a keyboard, but three female background singers are brought in and they charge $50 each.

The producer is a friend of the band and the leader of the biggest band in the area, and the band members agree to pay him a $500 advance so he won’t feel as though he’s working for free, with another $4,500 and four points promised if the project gets signed and the band gets an advance.

There are no rentals except for a Hammond B-3, for which the owner charges $150 for two days of use. There’s no money for food, and everyone survives on his or her own lunch money, just as they always do. There are three hard drives that are bought for the project as backup as well as a spindle of CD-Rs so everyone can listen to the rough mixes in the cars.

The tracking engineer charges $250 a day (a good rate for the locality), but different members of the band and the producer all engineer the overdubs, so there’s no cost there. The same engineer who tracked the project will mix it, again for $250 a day, but the number of tweaks or remixes is limited to only an additional couple of days past the initial eight. The engineer doesn’t bring his own gear, so there’s no need to pay any cartage fees.

The project comes in at $7,380, and the 10 percent contingency brings it to just over $8K, a price that’s still high, but reachable for the band and their investors.
Table 4.2: Budget for a Self-Financed Project

<table>
<thead>
<tr>
<th>Budget Item</th>
<th>Number of People</th>
<th>Number of Days</th>
<th>Cost per Day</th>
<th>Total</th>
</tr>
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<tr>
<td><strong>Studio</strong></td>
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<td>Rehearsal</td>
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<tr>
<td>Overdubs</td>
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<td></td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Mixing</td>
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<tr>
<td>Mastering</td>
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<td>$750</td>
<td>$750</td>
</tr>
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<td>Single scale</td>
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<td>Double scale</td>
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<tr>
<td>Leader</td>
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<td>$745</td>
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<tr>
<td>Doubles</td>
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<td>$0</td>
</tr>
<tr>
<td>Cartage</td>
<td></td>
<td></td>
<td>$50</td>
<td>$150</td>
</tr>
<tr>
<td><strong>Background singers</strong></td>
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</tr>
<tr>
<td><strong>American Federation</strong></td>
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<td></td>
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</tr>
<tr>
<td><strong>of Musicians Union</strong></td>
<td></td>
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</tr>
<tr>
<td>(11% + $22)</td>
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<tr>
<td><strong>TOTAL MUSICIANS EXPENSES</strong></td>
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<tr>
<td><strong>Advances</strong></td>
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<tr>
<td>Producers</td>
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<td>Guest artist</td>
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<tr>
<td>License fees for sampling</td>
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<td><strong>TOTAL ADVANCES</strong></td>
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<tr>
<td><strong>Miscellaneous</strong></td>
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<td>Food</td>
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<td>Spindle of blank CD-Rs</td>
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<tr>
<td>Engineer (tracking)</td>
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<td>5</td>
<td>$250</td>
<td>$1,250</td>
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<tr>
<td>Engineer (overdubs)</td>
<td>1</td>
<td>16</td>
<td>$50</td>
<td>$0</td>
</tr>
<tr>
<td>Engineer (mixing)</td>
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<td>10</td>
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<td>$2,500</td>
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<td>Cartage</td>
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<td>$0</td>
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<td>Production assistant</td>
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<td>Production coordinator</td>
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<td><strong>TOTAL LABOR EXPENSES</strong></td>
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<tr>
<td>Travel and living</td>
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<tr>
<td>Auto</td>
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<tr>
<td><strong>TOTAL GENERAL MISCELLANEOUS EXPENSES</strong></td>
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<tr>
<td><strong>TOTAL</strong></td>
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<td><strong>10% contingency</strong></td>
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<tr>
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<td><strong>$8,118</strong></td>
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</tbody>
</table>

**Assembling the Budget**

How many songs?

On what format will it be released?
Are manufacturing costs included in the budget?

Is the producer advance included in the budget?

What kind of sound is the artist looking for?

What kind of facility do you want to record in?

Are you sure you don’t have a budget in mind?
Using Union Musicians

As you saw in Table 4.1, it costs a lot more money to hire musicians who work under the American Federation of Musicians (AFM) union rules than to hire ones who don’t. Not only is the pay generally higher for union musicians working a shorter session than it is for nonunion players, but you also have additional costs that go beyond what the player gets directly, which I’ll cover in a bit. What’s more, union rates can be somewhat of a maze, because different scales cover different situations, rates are renegotiated every few years, and pay scales vary from union local to union local (not that much, but they do vary).

Generally, the union pay scales for recording are based on three-hour sessions and are broken down as follows:

**Demo scale.** With this type of scale, the recording that the musicians play can only be used to secure a record deal and can’t be sold commercially. This rate is the least expensive (to the producer) of all the scales. Demo scale is a relic from a time when having a demo was a necessity to take your project to a higher level in the business. Even though this pay scale is still on the books, it is now outdated because any recording is so easy to release commercially.

**Limited-pressing scale.** This scale, another relic of the past thanks to digital music, allows the producer or label to make and sell up to 10,000 copies of anything the musicians play on. The limited-pressing scale pays a bit more than the demo scale.

**Low-budget scale.** The low-budget scale was originally created to help small indie record labels that never had the large recording budgets typical of a major-label product. The key here is that the budget needs to be submitted to the union for approval in advance before the musician can play on it, but the label can sell as many copies of the product as they want.

**Master-recording scale.** This is the scale used to pay musicians to record a typical medium- or big-budget master recording for a major record label. It’s the highest-paying scale and has the most perks.

**Jingle scale.** The jingle scale is a little different in that most jingle (commercial music) sessions are so short that everything is based on a single hour of pay divided into 20-minute increments. The number of jingles that can be recorded in that time period is limited to three (or three minutes of music), or else you must pay the musicians for another session. The musicians also get paid for every 13-week run that the commercial stays on the air (but that doesn’t come out of your budget). The
musicians also get paid if the producer takes the music bed that was recorded and creates an additional commercial (called a “dub fee”) or a new commercial (called a “conversion fee”).

Motion-picture and film scales. This is a dizzying array of scales for orchestral recordings that vary depending on the size of the orchestra and budget, and whether the performance is a “buyout” (you get paid only once for the original performance) or you are to get paid for subsequent broadcast performances.
There are other fees that must be paid under certain circumstances on a union date.

- The leader is always entitled to twice the scale rate, regardless of which kind of session or what rate scale you’re using.
- If a musician doubles on a second instrument during the session, he or she will make an additional 20 to 30 percent (depending on the type of session and scale) and an extra 15 to 20 percent for each additional instrument played.
- In some cases, a musician may even get an additional payment for cartage of large instruments: for example, $12 for cello, baritone sax, bass sax, contrabass clarinet, tuba, drums, marimba, chimes, accordion, Cordoxox, and each amplifier, and $30 for harp, keyboard, tympani, vibraphone, and acoustic bass.
- In addition to the hourly scale amount, the producer will contribute another 12 percent or so to the musician’s union pension fund, an additional 3 percent to his or her health-and-welfare fund, and in some cases, 4 percent more to a vacation fund.

As stated before, the scales and rates are subject to change every few years, so it’s best to check with your union local to find out exactly what those rates are today. This section is just a thumbnail of the details, so be sure to check for all the particulars that might apply to your specific session well in advance of the downbeat, and make sure that the session leader or contractor (whoever files the paperwork) is on the same page as you are.

Here’s a list of the major media centers’ union locals and Websites:
HIRING UNION MUSICIANS

The best way to ensure that you get the players you want, stay within the confines of the union, and have all the paperwork filed, is to hire a union contractor who will put the appropriate players together for you. If you need a horn or string section, a single call to a contractor will get you the players you need instead of your having to assemble the section yourself (which can be hit or miss as to the quality of players if you’re not familiar with them).

The contractor acts as a go-between for musicians and producers, and is required to be present at all times during the session when his contracted musicians are recording. Contractors come in two varieties: union and independent. Both are usually musicians themselves who supervise and provide additional services for a session. A contractor can help musicians and singers prepare by supplying them with the necessary information for the session and making sure that they and their specified instruments and equipment arrive at the event or session on time. A contractor coordinates the event, coaches, conducts, computes session fees, and submits the proper union forms (if it’s a union date) to the employer and union office.

It is not uncommon for contractors to specialize in a specific area of the business such as jingles, orchestral dates, or film-and-television sessions. For a contractor, it’s all about relationships. His or her reputation is founded on the experience level and quality of the musicians they make available, so it makes sense for you to cultivate relationships with the local contractors.
UNION VERSUS NONUNION PLAYERS

Any time you do a project with a record label, film studio, or production company that is a union signatory, you must use union players and pay union rates as per their contract with the union. Officially, this means that if a new band has signed to a major label, they’ll have to join the union and be paid union wages to perform on their own album. There are numerous ways around this (for example, if the band receives a recording fund, as discussed in the next section), and so this rarely happens, but you get the idea as to how this can impact your budget if you’re not aware of what you’re getting into.

Even if your project is nonunion, you may still have to pay union rates to string, horn, and vocal sections, especially if they’re top-notch, or else they just won’t make themselves available. Of course, that applies more to the major media centers than it does anywhere else.

That being said, most union musicians will take a nonunion gig when times are slow and money is tight. Once again, their fee might be based on an hourly, a daily, or a by-the-song/project rate, but if they’re available and you’ve got the money, chances are they’ll be set up in the studio waiting for your downbeat. Right now, even some of the best musicians in New York, Nashville, and Los Angeles can be had for $100 as long as there’s no hassle, no cartage involved, and you can work around the player’s schedule. Many will give you a big discount if you work at their home studios or just send them the project so they can work on it when they have the time. No matter how you do it, you can always find bargains for getting great players as long as you make the session easy for them to do.

The Musician’s Union

Each local has its own rates.

Each type of production has its own scale.

The producer must pay up to 19% additionally for player’s benefits.

There are additional costs for the leader, doubling on a second instrument, and cartage.

A contractor can hire the appropriate players and file the paperwork.
Once upon a time, the recording budget was totally controlled by the record label. This system worked pretty well in the early days, when a staff producer used the in-house studio to produce the record. As independent studios and producers sprung up during the ‘80s, however, the record label would pay the production bills through a series of purchase orders (which was essentially an agreement to purchase goods or services at a set price, so the label didn’t get any unexpected bills down the road) and invoices from the studio, players, tape suppliers, and anyone else having anything to do with production. Everyone hated this system. Vendors hated it because it would take so long to get paid (at least 90 days); labels hated it because of the increased paperwork and administration it involved; and producers hated it because they were usually caught in the middle of screaming vendors who demanded payment and the label’s accounting department, which could pay only after the purchase order was signed off on by the ninth person (no joke). Eventually, the “recording fund” solved all that.

With a recording fund, the entire recording budget is paid to the band or artist in one lump sum. It then becomes the artist’s responsibility to pay all the costs in order to deliver the record on time. The band can use the money any way it sees fit, but it has to deliver a quality product in the specified amount of time. If the project comes in under budget, the band gets to keep the excess. If the budget runs a little over (often about 10 percent), the label pays that also. But any more, and it comes out of the band’s pocket.

The fund was a great idea for the labels, because they no longer had to worry about the hassle of paying every vendor involved with the production, which saved money on accounting costs. And if an experienced producer was hired, a label could be reasonably sure that the project would come in on time and on budget. For most artists and bands, having the budget money in their bank account suddenly made them a lot more cost conscious, always a good thing. It also gave the band members the opportunity to buy their own recording gear so they didn’t have to worry about spending money on studio time. And the fund was a godsend for the producer, who could now make sure that a vendor got paid either on the spot or in a short period of time if a manager or business manager was cutting the check.

Although a recording fund might be a revelation for a label artist, it’s the normal way of doing business for every artist or band that isn’t signed. Even legacy superstar acts like Prince, Rush, and the Stones pay their own recording costs these days. Although it still might take a while to get paid via the business management from a superstar act, it’s still a lot faster than waiting for the label’s accounting department (most are now paying at 120 days or more).

**The Recording Fund**

A budget delivered to the artist in a lump sum.

It’s the artist’s prerogative to keep the excess if he comes in under budget.
A Final Word on Budgets

Whether your budget is $750 or $750,000, don’t look at it only as a financial concept. A budget is your road map. A budget is your plan. It’s how you get smoothly from a dream concept to the finished product. With a well-thought-through budget and timeline, you will always stay on schedule when there’s nothing unforeseen, and you’ll easily adapt when the unforeseen arises. Don’t take your budget lightly.
At the heart of every music production is its basic building block—the song. It’s the key element, because if you don’t have a great song or songs, you won’t have a great record. You can have the most brilliant players provide excellent performances and you can create a masterful production job, but if the songs aren’t there, not much of the audience is going to care beyond the first listen. Indeed, music history is littered with artists, bands, and records that had everything going for them except the most important thing: the songs.

That’s why I’m spending an entire chapter analyzing song structure. In the end, no one can predict what will be a hit or what might touch your audience’s heart or feet, but certain elements have tended to work in popular music of all types since the beginning of the structured song form. It helps to know what works before you try something else.
Let’s Discuss Your Songs

While this book is not a songwriting handbook, I’d like to point out a number of common problems that stick out when an artist or band inexperienced at songwriting or arranging first play their songs to me. Keep in mind that I’m talking about songs from all genres of music. No matter what it is, from rock to country to goth to rockabilly to alien space music, you want the song to be interesting to your particular audience. So beware of any of the following elements if they apply to any song or songs that you are planning to record.

▶ **Too long.** Neophyte songwriters have a tendency to write a lot of songs with sections that are way too long. Two-minute intros, three-minute guitar solos, and five-minute outros are almost always boring. The idea should be to keep everything interesting and to the point. You are always better off having a section be too short rather than too long. The only exception is if you can make a long section interesting, which takes a lot of arranging skill, and even then it still might not keep the audience’s attention. One really long outro that does work, for example, is the outro to Lynard Skynard’s classic “Free Bird,” with slight arrangement changes, kicks, and accents every 16 bars. A great band, great performance, and great arrangement hold the listener’s attention to the very end—and, after all, that’s your goal.

▶ **No focus.** Beginning songwriters often have songs that lack focus, which means that the songs meander from chord to chord with no apparent structure and no clear distinction between sections. This is often the result of not honing a song enough and thinking it’s finished way before it really is. Sometimes there’s a song in the unfinished form if you peel the layers back and dig a bit, but usually the only way to fix it is to go back to the drawing board for a major rewrite.

▶ **Weak chorus.** In a lot of songs, it’s hard to tell when the verse stops and the chorus begins—they’re basically the same. An interesting chorus has something different from the verse. It may be just a little different, like adding background vocals or another instrument, or an accent or anticipation to the same chord changes and melody (like Lady Gaga’s “Just Dance” with its synth pad and double time percussion, Stevie Ray Vaughn’s “Crossfire” with its horn hits and guitar fill, and Michael Jackson’s “Don’t Stop ‘Till You Get Enough” with its string pad and horn fill). Or it could be a lot different, like a different set of chord changes or melody combined with the arrangement changes previously mentioned, like “Vertigo” by U2, “This Kiss” by Faith Hill, or Lady Gaga’s “Poker Face.” Either way, something has to change in the chorus to lift the energy and keep the song memorable.

▶ **No bridge.** Another common songwriting mistake is neglecting to include a bridge in a song. A bridge is an interlude that connects two parts of a song, building a harmonic connection between those parts by increasing or decreasing the tension. Normally, the verse should be played at least twice before the bridge is introduced. The bridge may then replace the third verse or precede it. In the latter case, the bridge delays an expected chorus. The chorus after the bridge is usually the last one and is often repeated in order to stress that the song is nearing its end. When you expect to hear a verse or a chorus but you hear something that is musically and lyrically different from both verse and chorus, it is most likely the bridge ((the
Black Eyed Peas’ “Let’s Get It Started” and Van Halen’s “Panama” come to mind).

A bridge is important because it provides a basic quality found in all art forms: tension and release (in music, going from loud to quiet or quiet to loud; in painting, going from dark to light colors; in photography, moving visually from light to shadows, and so on). Using tension and release keeps things interesting. The bridge is sometimes the peak of the song, the point at which it’s at its loudest and most intense (check out the bridge of the Police’s “Every Breath You Take”), or the bridge could be a song’s quietest and least intense point (the Who’s “Baba O’Riley” [when Pete Townsend sings “It’s only teenage wasteland”]).

Almost every great song has a bridge, but there are the occasional exceptions. Songs that are based on a straight 12-bar blues pattern frequently don’t have bridges, but they might use dynamics or a specific arrangement to provide the tension and release. An example would be the ZZ Top classic “Tush.” There’s no bridge in the song, but the snare fill by itself after the last verse into the outro guitar solo supplies the release. Another would be the Guess Who/Lenny Kravitz song “American Woman,” where there are just four bars of a different guitar rhythm and a stop.

And then there are the songs that can get by without a bridge by virtue of how they’re arranged or how long each section is. Fleetwood Mac’s “Dreams” has only two verses and three choruses, but listen to how everything builds so that the peak of the song is the last chorus. And then there’s Green Day’s “Wake Me Up When September Ends,” which doesn’t have a bridge but doesn’t really have a true chorus either, and gets its tension and release purely from dynamics and the layering of additional guitars (which we’ll go over in a bit).

▶ Poor arrangement. Even with great songwriters, this mistake is common. Usually this means that the guitar or keyboard will play the same lick, chords, or rhythm throughout the entire song. Now that can work perfectly well and might even be a great arrangement choice if another instrument plays a counter-line or rhythm, but normally it just means that the arrangement will be boring. You’ve got to make sure that the song stays interesting, and that means the addition of lines and fills. An example of a song in which a structure like this does work is “American Women” (again).

▶ No intro/outro hook. If we’re talking about modern popular music (not jazz or classical), most of the songs have an instrumental line, or hook, that you’ll hear at the beginning of the song, maybe again in the chorus, and any time the intro repeats in the song. Great examples of hooks are the opening guitar riff in the Stone’s “Satisfaction” and the opening piano part in Coldplay’s “Clocks.” Developing intro/outro hooks is one of the major jobs a producer confronts.

▶ No song dynamics. Once again, one of the secrets to creating an interesting song is to use tension and release. Regarding dynamics, tension and release is expressed by the music getting loud, and then soft (or vice versa). Grading the volume level on a scale of 1 to 10 (10 being the loudest), the typical song will look something like this:
Notice how the song breathes in volume from loud to soft, to louder to softer, to louder to really loud. Notice how the intensity builds. That’s tension and release. Even if the song doesn’t use this song structure, you always have to consider the volume envelope of the song before recording it. Ultimately, the sound and the arrangement will both be a lot better right out of the box (see chapter 6 for more on dynamics).

Table 5.1: Song Dynamics

<table>
<thead>
<tr>
<th>Song Section</th>
<th>Dynamic Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intro</td>
<td>8</td>
</tr>
<tr>
<td>Verse</td>
<td>5</td>
</tr>
<tr>
<td>Prechorus</td>
<td>7</td>
</tr>
<tr>
<td>Chorus</td>
<td>9</td>
</tr>
<tr>
<td>Intro</td>
<td>8</td>
</tr>
<tr>
<td>Verse</td>
<td>6</td>
</tr>
<tr>
<td>Prechorus</td>
<td>7</td>
</tr>
<tr>
<td>Chorus</td>
<td>9</td>
</tr>
<tr>
<td>Bridge</td>
<td>10</td>
</tr>
<tr>
<td>Chorus</td>
<td>9</td>
</tr>
<tr>
<td>Chorus</td>
<td>9</td>
</tr>
<tr>
<td>Outro</td>
<td>9</td>
</tr>
</tbody>
</table>
DYNAMICS ON RECORDS

While playing dynamically works during recording (especially if you have a live band), the way to change intensity on a record is done not only by using dynamics but also by adding and subtracting instruments. A typical arrangement might look something like the following:

**Intro**
Drums (drummer playing on ride cymbal)
Bass
Organ
Rhythm guitar
Lead guitar playing a line

**Verse**
Drums (drummer playing on high-hat)
Bass
Rhythm Guitar
Vocal

**Prechorus**
Drums (drummer playing on hi-hat)
Bass
Rhythm guitar
Organ
Vocal
Harmony vocal

**Chorus**
Drums (drummer playing on ride cymbal)
Bass
Rhythm guitar
Organ
Vocal
Lead-guitar line against vocals

**2nd Intro**
Drums (drummer playing on ride cymbal)
Bass
Rhythm guitar
Organ
Lead-guitar line from intro

**2nd Verse**
Drums (drummer playing on hi-hat)
Bass
Organ
Rhythm guitar
Vocal
Lead guitar playing answer riffs in the holes between vocal phrases

**2nd Prechorus**
Drums (drummer playing on hi-hat)
Bass
Rhythm guitar
Organ
Vocal
Harmony vocal

**2nd Chorus**
Drums (drummer playing on ride cymbal)
Bass
Rhythm guitar
Organ
Vocal
Background vocals
Lead-guitar line against vocals

**Bridge**
Drums (drummer playing on ride cymbal)
Bass
Rhythm guitar
Organ
Piano
Vocal
Tambourine

**Chorus**
Notice how something different happens in every section of the song. An instrument is either added or subtracted or played a little differently, as with the drums alternating between the hi-hat and ride cymbals. This arrangement not only makes the song sound naturally dynamic, but it also makes it sound a lot more interesting. Compare the above outline to many of the hit songs from the past 50 years or so, and you’ll find they all use some variation of the above. If it’s worked so well before, it will work for your production too.

**Common Song Problems**

The sections are too long.
Chords meander.

It’s unclear where the verse ends and the chorus begins.

There’s no bridge to provide tension and release.

The arrangement is poorly done.
The song has no hook.

It has no dynamics.
One of the first things a producer does during preproduction is to dig deep into the songs to check out the arrangements and the song structure. Even if a song is written well and has catchy hooks, the arrangement is what really makes it cook.

How you arrange the song is the key to how it will ultimately sound. The song can be played with great precision and dynamics, but it will never catch fire sonically unless all the instruments complement each other in such a way that the sum of the band’s parts sound bigger and better together than as individual instruments and voices. Here are some things to consider:
ARRANGEMENT ELEMENTS

Some songwriters have it worked out in their heads what each band member should play, but for most songwriters (even the most accomplished), that skill has to be developed or else passed on to a specialist. In order to understand how an arrangement influences a song, you must first understand the mechanics of a well-written arrangement.

Most well-conceived arrangements are limited with regard to the number of elements that occur at the same time. An element can be a single instrument (like a lead guitar or a vocal), or it can be a group of instruments (like the bass and drums, a doubled guitar line, a group of backing vocals, and so on). Generally, a group of instruments playing exactly the same rhythm is considered an element. Examples: a doubled lead guitar or doubled vocal is a single element, as is a lead vocal with two additional harmonies. Two lead guitars playing two different parts are two elements, however. A lead and a rhythm guitar are two separate elements as well.

Here are the typical arrangement elements that make up most of modern music:

- **Foundation.** The foundation is the rhythm section and usually consists of the bass and drums. But it can also include a rhythm guitar and/or keys if they’re playing the same rhythmic figure as the rhythm section. Occasionally, as in the case of power trios, the foundation element will be the drums only, since the bass usually has to play a different rhythm figure to fill out the sound, and must become its own element.

- **Pad.** A pad is a long, sustained note or chord. In the days before synthesizers, a Hammond organ provided the best pad, and was joined later by the Fender Rhodes electric piano. Synthesizers now provide the majority of pads, but a real string section or a guitar power chord can also suffice.

- **Rhythm.** Rhythm is any instrument that plays counter to the foundation element. This can be a double-time shaker or tambourine, a rhythm guitar strumming on the backbeat, or congas playing a Latin feel. The rhythm element is used to add motion and excitement to the track.

- **Lead.** A lead can be a vocal, lead instrument, or solo.

- **Fills.** Fills generally occur in the spaces between lead lines, or they can be a signature line. You can think of a fill element as an answer to the lead.

That’s not to say that each individual instrument is a separate element, however. In Bob Seger’s classic rock standard “Night Moves,” there are bass and drums, acoustic guitar, piano, Hammond organ, lead vocal, and background vocals. This is how they break out.

**Bob Seger’s “Night Moves”**
Usually, an acoustic guitar falls into the rhythm category, because the strumming is pushing the band and creating excitement. In “Night Moves,” however, the acoustic guitar’s level is pulled back in the mix so it melds into the rhythm section, effectively becoming part of the foundation element.

Alanis Morissette’s “Thank U” contains several good examples of both rhythm and pads. What’s different is that there are two sets of each: one set for the intro and chorus, and another set for the verses.

**Alanis Morissette’s “Thank U”**

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foundation</td>
<td>Bass, drums, acoustic guitar</td>
</tr>
<tr>
<td>Pad</td>
<td>Synthesizer behind piano in intro and chorus; different synths in chorus</td>
</tr>
<tr>
<td>Rhythm</td>
<td>Piano; “breath” sample in the verse</td>
</tr>
<tr>
<td>Lead</td>
<td>Lead vocal</td>
</tr>
<tr>
<td>Fills</td>
<td>Guitar fills in the second verse</td>
</tr>
</tbody>
</table>

Of course there’s so much more going on in this song trackwise, but any additional tracks are either replacing or doubling the above elements. The number of elements remains constant.

Gnarls Barkley’s “Crazy” is a stripped-down song that has very few layers, but the four main elements are always there.

**Gnarls Barkley “Crazy”**

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foundation</td>
<td>Drum machine</td>
</tr>
<tr>
<td>Pad</td>
<td>Synth playing voice sample to chorus, where a second set comes in an octave higher</td>
</tr>
<tr>
<td>Rhythm</td>
<td>Bass with the doubled guitar line</td>
</tr>
<tr>
<td>Lead</td>
<td>Lead vocal</td>
</tr>
<tr>
<td>Fills</td>
<td>String lines during chorus</td>
</tr>
</tbody>
</table>

This song is unusual in that the bass and the doubled guitar line push the song forward, becoming the rhythm.

Rascal Flatts’s “What Hurts the Most” is an example of the “new” country music, which closely
resembles layered pop music except that traditional country instruments (steel, banjo, fiddle) are added.

**Rascal Flatts’s “What Hurts the Most”**

| Foundation | Bass, drums |
| Pad        | Steel and guitar in chorus |
| Rhythm     | Acoustic guitar in verses; banjo and shaker in chorus |
| Lead       | Fiddle in intro, lead vocal, lead guitar in solo |
| Fills      | Steel answer to fiddle in intro; harmony answer to vocal at the beginning of the outro |

Garth Brook’s “Two Pina Coladas” is different because there’s no pad in the traditional sense, but the steel guitar playing softly in the background takes over the part well and shows that it’s possible for nontraditional instruments to play that role.

**Garth Broolcs’s “Two Piña Coladas”**

| Foundation | Bass, drums |
| Pad        | Steel guitar |
| Rhythm     | Acoustic guitar and shaker |
| Lead       | Lead vocal |
| Fills      | Electric and acoustic lead guitar; occasional steel fill |
When two instruments with essentially the same bandwidth frequency (like guitars) play at the same volume at the same time, the result is a fight for attention. Think of it this way; you don’t usually hear a lead vocal and a guitar solo at the same time, do you? That’s because the ear isn’t able to decide which to listen to, and becomes confused and fatigued as a result.

So how do you get around instrument “fighting”? First and foremost is to have a well-written arrangement that keeps certain instruments out of each other’s way right from the beginning. The best writers and arrangers have an innate feel for what type of arrangement will work, and the result is an arrangement that automatically comes together without much help—but they’re the lucky ones. Most of the rest of us have to use our experience along with some trial and error to make everything work together.
Most bands have more than one guitar player and most songs have more than one guitar part, so it’s important to learn how to refine the guitar sounds so the recording sounds big and fat instead of loud, thin, and confused. In order to accomplish this, you have to make sure that the songs are arranged so that the guitars stay out of each other’s way. If you listen closely to just about any recording by a popular artist, you’ll see that this is just what’s happened in the studio already. If you can hear within the song (which isn’t always easy with certain types of music or low-quality audio delivery formats like MP3s), this is what you’ll hear.

- **Each guitar is playing something completely different.** One guitar might be playing full chords, while the other is playing a line like the one in the Eagles’ “Already Gone.”
- **Each guitar is playing in different registers or voicings.** If one guitar is playing an A chord on the 2nd fret, the second guitar would be playing it on the 5th fret. If one guitar is playing a line on the 5th and 6th strings, the second guitar would be playing the same thing, only up an octave on the 1st and 2nd strings. The signature intro line of Lenny Kravitz’s “Are You Goin’ My Way” is a perfect example.
- **Each guitar is playing a different rhythm.** If one guitar is playing long, sustained chords, called “power chords” (or in studio parlance, “footballs,” because they’re whole notes that look like footballs when transcribed), the second one is playing a faster rhythm like quarter or eighth notes—again like the intro to “Already Gone.”
- **Each guitar has a different sound.** It’s really common for a guitar player who’s a neophyte in the recording studio to have loads of ideas for guitar parts but also to want to play them all on the same guitar with the same amplifier setup. This is usually a recipe for a sonic jumbled mess, but the fix is an easy one: use a different guitar, amplifier, or both for each different part. This is the reason that studio guitar players come to a session with a wide array of guitars and amps—different sounds make the arrangement more interesting, and the guitar parts fit together better. Usually, having a minimum of two different styles of guitars (a single-coil like a Strat, and a humbucker like a Les Paul) make multiple guitar parts fit better together. Having two different styles of amps (a Fender and a Marshall, for example) provides another level of difference. Add another guitar style or two (a Tele, a Gretsch, or a Rickenbacker) or amp (a Vox AC-30, a Tweed Fender, a Mesa Boogie), and you can add any number of guitar parts but still keep them interesting and have them heard (within the right arrangement, of course). See Fig. 5.1 for an example.
Fig. 5.1: An example of an excellent guitar recording array

You’ll find that if you use these arrangement techniques, the guitars will lay in better with the track and better support the vocals and rhythm section, and make the song a lot more interesting, to boot.

**Arrangement Technique**

No more than four elements should play at the same time.

Every instrument should have its own sonic space.

Each guitar should play a different line.

Each guitar should play in different registers.

Each guitar should play a different rhythm.

Each guitar should have a different sound.
Rules for Arrangements

There are a couple of easy-to-remember rules that make even the densest arrangement manageable.

▶ **Limit the number of elements.** Usually, no more than four elements should be playing at the same time. Sometimes three elements can work well. Very rarely will five simultaneous elements work.

▶ **Everything should be in its own frequency range.** This rule is so important that it needs to be stressed: the arrangement will fit together better if every instrument sits in its own frequency range. For instance, if a synthesizer and rhythm guitar play the same musical figure in the same octave, they will usually clash. The solution would be to either change the sound of one of the instruments so that each fills a different frequency range, have one play in a different octave, or have them play at different times but not together.

This entire book could be spent on modern arranging. But if you follow these two simple rules, when you enter the studio you’ll have a great-sounding song with an arrangement that lays together well.
No matter what your background or experience is, as a producer, it’s likely you’ll be confronted with the same question throughout many of your projects: “Why doesn’t this song (or a part in the song) sound right?” Maybe it’ll feel great on one run-through, and not as good on the next. Maybe it sounds great except for one section. Maybe it never sounded great, but you think the song has something special and it’s worth the time spent working it out.

There are certain mechanics that determine how tight the music is, how it feels, and how “big” it sounds. These mechanics work for any kind of music, from marching band to deep house to reggaeton to speed metal—the principles are all the same. If something doesn’t sound “right,” it’s a pretty good bet that one or more of the following principles have been overlooked.
Playing with dynamics means playing with less intensity in certain places in a song, and with more intensity in other places. Some bands are oblivious to dynamics and play at one volume throughout an entire song, which can get boring for the listener very quickly.

Generally speaking, here’s how you use dynamics effectively.

▶ When the song begins, the band plays fairly loudly, about 7 or 8 on a scale of 1 to 10.
▶ When the vocal or lead instrument (if the group is instrumental) comes in at the verse, the band drops down to about 4 or 5.
▶ When the chorus comes in, the volume level comes back up to a 7 or 8.
▶ When the second verse begins, the band drops down to a 5 or 6 (notice it’s a little louder than the first verse, but not as loud as the chorus).
▶ When the second chorus begins, the band comes back up to a 7 or 8.
▶ When the bridge (or whatever section is the peak of the song) starts, the band comes all the way up to 9 or 10.
▶ For the outro of the song, the band drops down to 7 or 8.
▶ If the song has a breakdown, the level might come down as low as a 1 or 2.

While the level of intensity (and, as a result, the volume level) may change from the numbers indicated above for different songs and depending on what finally feels the best, that’s basically how using dynamics is done. If the band plays a song dynamically, the song breathes volume-wise. Going from loud to quiet or quiet to loud is using what’s called tension and release, and it’s what keeps things interesting.

The Secret to Playing Dynamically

When you play loudly, play as loudly as you can.

When you play softly, play as softly as you can.

There are a few by-products of playing dynamically, too. The vocals can be heard more easily because there’s more space and there are fewer loud instruments for the vocalist to fight against (easier on the singer’s throat as well). Songs become more fun to play because true interaction exists between the other players to make the music work, and as a result, the band automatically gets tighter.

For a really great example of dynamics, listen to “Smells Like Team Spirit” by Nirvana. The verses are at about a 5, the prechorus at 7, and the chorus roars at 10.
Most bands learn to play dynamically if just one player is dynamics-aware and the others follow that person’s lead. (It helps if that one aware person is the drummer.) If a band is together for a long enough time and plays enough gigs, dynamics will seem to magically seep into the group’s playing once it begins to get some self-awareness of just what it takes to get a crowd going. You can’t spend years waiting for these things to happen by themselves, though—after all, you’re making a record. So just use the following method:

- When the band is going over a song, treat the dynamics as an integral part of the song and spend as much time learning them as you would learning the chord changes and the groove. As shown above, map out each section of the song on a loudness scale of 1 to 10, with 10 being the loudest.
- The following step is the most important: make sure that all band members agree on how loud or soft each dynamic number should be. In other words, be sure that the drummer’s 8 level, for example, is the same as the rhythm guitar player’s, and that the bass player’s level 2 is the same as the lead guitarist’s. After that’s commonly agreed upon, rehearse the dynamics of a song until they’re second nature, and then watch the audience take notice.
A common complaint from a band that’s being taught dynamics is that the song just doesn’t drive when they play the verse (or any other section) quietly. That’s because it’s easy to confuse volume level with intensity.

**To Play at the Same Intensity at a Lower Level**

Make sure that the attacks and releases are the same.

Make sure that the tempo is the same.

Make sure that the internal dynamics of each individual player is the same.

Most beginner bands tend to get sloppier the softer or less intensely they play. They begin to play the individual beats at slightly different levels and even have slight tempo variations between beats. As a result, playing softly sounds wimpy. Another thing that happens is that the band gets so used to playing at one level (usually loud), that anything compared to that level sounds so different that it’s perceived as less exciting. The same thing happens when you drive your car at 80 mph for a long time. When you bring it back to 65 mph, it feels as though you’re going very slowly, even though you’re still going pretty darn fast. And finally, the internal dynamics of each individual player go out the window. Instead of playing crisply yet quietly, with the same attack and releases (covered later in the chapter) as at the higher volume level, the attack and releases get relaxed and so the playing becomes less precise.

The real trick is learning to play with the same intensity at lower levels. Make sure that the tempo is even, the groove stays the same as at the higher volume, and the attacks and releases are crisp, and you should sound powerful at any volume level.
Another part of playing dynamically is to pay attention to builds. Builds usually occur during turnarounds (for example, the two or four bars between the verse and chorus), but they sometimes occur at the beginning or ending of a song, too. For a good example, you’ll find a build at the beginning of each section of Rush’s “Spirit of Radio.” Once again, all band members have to play the build the same way, starting from the same low volume and going to the same high volume. Builds are easy to overlook, and many times a band will think that it’s performing one well if it just plays the rhythm of the build cleanly. But a build is called a “build” for a reason, since just playing it cleanly doesn’t mean much unless there’s an actual volume difference.
One of the fundamental errors that band members frequently make is not listening closely to the rest of the band. It’s easy for a player to focus just on his or her own performance, but in order to play well together, what really counts is listening closely to each other as all the band members play. This is the single most important action that a musician can take when playing with other musicians, and is essential for playing well in the studio.

So what do you listen for? You listen to how the other musicians are playing or singing a phrase or part. How loudly are they playing? What are their dynamics like? How do they start and end each phrase? Where are they placing their accents? How are they playing the accents? Are they playing ahead of the beat or behind it? Does their tempo speed up when they play louder or slow down as they get softer?

All these items require as much of your attention as possible. The more the players listen to each other and how each of them play and sing, the tighter they become. It’s that simple.

That being said, it does require some work. During rehearsal, if you notice that a phrase or part isn’t being played the same way (or if a player doesn’t seem in sync), stop the song immediately and ask each player, “How are you playing that?” Then determine which way sounds best, and rehearse just that phrase or part until everyone’s playing it together.

**Things to Listen for When Observing a Band**

- How loudly are they playing?
- What are their dynamics?
- How do they start and end each phrase?
- Where are they playing the accents?
- How are they playing the accents?
- Are they playing ahead of the beat or behind it?
- Do they speed up when they play softer or louder?
A big part of playing together well is developing good timing. Playing in time means that each player must play to the pulse of the song. But while an individual player may be doing that well, if the entire band isn’t following a song’s pulse in exactly the same way, it sounds sloppy. There are three parts to timing: song starts and stops, the groove, and attacks and releases. Let’s look at each one.
SONG STARTS AND STOPS

You could call song starts and stops “beginnings and endings” except for the fact that there are sometimes stops and starts in the middle of a song. The trick here is to make sure that everyone starts and stops the song at the same time. Practicing starts and stops cannot be left for later or treated with an “It will be better in the studio” attitude. Rehearse each start and stop until everyone is locked in and knows each one like the back of their hand! If things still don’t sound right after five or six tries, go back to the reliable “How are you playing it?” question. As is the case with most things that don’t lock in tightly, there’s at least one player who may be playing things slightly differently from the rest. Even if one of the instruments begins the song with a pickup or fill (as with U2’s “Get on Your Boots”), everyone still has to play the start of the song the same way after the fill. Regardless of how the song starts or ends, everyone has to play it the same way—no exceptions.
Once again, any time there is an accent in the song, everyone has to play it the same way. This means with the same feel, timing, and phrasing. If it just doesn’t seem to sound right, make sure that everyone is playing it the same way.
All good music—regardless of whether it’s rock, jazz, classical, rap, or some new space music that we haven’t heard yet—has a strong groove. You always hear about “the groove,” but what is it?

The “groove” is the pulse of the song and how the instruments dynamically breathe with it.

To your audience, the groove is an enjoyable rhythm that makes even the people that can’t dance want to get up and shake their booty. And while the concept of “the groove” is very subjective, the idea is well understood by experienced musicians at a practical, intuitive level. Musicians who play funk and Latin tunes refer to the groove as the sense of being “in the pocket,” while jazz players refer to the groove as the sense that a song is really “cooking” or “swinging.”

A common misconception about groove is that it must have perfect time, but a groove is created by tension against even time. This means that it doesn’t have to be perfect, just even, and all performances don’t have to have the same amount of evenness. In fact, it makes the groove feel stiff if tension aligns too perfectly with even time. That is why having perfect quantization of parts and lining up every hit in a workstation when you’re recording frequently takes the life out of a song. The time becomes too perfect because there’s no tension. The song has lost its groove.

Just about every hit song has a great groove, and that’s why it’s a hit. But if you want to study what a groove really is, go to the masters: James Brown, Sly Stone, Michael Jackson, George Clinton, and Prince. Every song is the essence of what a groove feels like.

Groove is often thought of as coming from the rhythm section, especially the drums, but that’s not necessarily always the case. In the Police’s “Every Breath You Take,” the rhythm guitar establishes the groove. And in most songs by the Supremes, Temptations, and Four Tops, from Motown’s golden age, the groove was established by James Jamerson’s bass.
The phrase “in the pocket” is used to describe something or someone playing in such a way that the groove is very solid and has a great feel. When a drummer keeps good time, makes the groove feel really good, and maintains it for an extended period of time while never wavering, it is often referred to as a “deep pocket.” It should be noted that it’s impossible to have a pocket without also having a groove.

Historically speaking, the term pocket originated in the middle of the previous century, when a strong backbeat (the snare drum striking on beats 2 and 4) became predominant in popular music. When the backbeat is slightly delayed, creating a laid-back, or relaxed, feel, the drummer is playing in the pocket.

Today, the term in the pocket has broadened a bit. If, for example, two musicians (usually the bass player and the drummer) are feeling the downbeats together and hitting beat 1 (the downbeat) at the exact same time, they are said to be in the pocket. Whether you are playing ahead (in front) of the beat, behind (on the back of) the beat, or on top (in the middle) of the beat, as long as two musicians (for instance, the bassist and the drummer) feel the downbeat at the same time, they’ll be playing in the pocket.

In terms of bass and drums locking to create a cohesive part, there are three main areas of focus. You have to know where your drummer is most comfortable in terms of the beat. Does your drummer play “straight,” meaning that he or she plays right on top of the beat (which can sound like disco music or a quantized drum machine)? Is he or she laid back, sitting in that area way on the back of the beat (the way Phil Rudd does on AC/DC’s “Back in Black,” like John Bonham on anything by Led Zeppelin, or like Clyde Stubblefield on James Brown’s “Cold Sweat” or “Funky Drummer”? Or does your drummer’s playing have the urgency of a musician who plays on top of the beat (like Stewart Copeland of the Police)? This is crucial to know, because the bass and drums have to function as a unit. They don’t have to play everything precisely the same way, but they have to know and understand the way the other thinks and feels.

Getting the rhythm section to groove with the rest of the band is much more difficult than you might think, since guitarists don’t always listen to the drummer, a keyboardist may have metronomic time yet have a difficult time coordinating his or her left hand with the bass player, and vocalists often forget that there’s a band playing behind them. The key is for everyone in the band to listen to one another!

Many people feel that the question is not so much what the pocket is as much as how you know when you’re in it; I guarantee that you’ll know it when you feel it, because the music feels as though it’s playing itself. It feels as though everything has merged together, with all the rhythmic parts being played by one instrument. Whichever definition you choose to go with or use, having a pocket is always good thing!
Attacks and releases (sometimes called “articulations”) are some of the most overlooked yet important elements in playing together. Attacks and releases usually apply to a phrase that you’re either playing or singing. The attack part is easy: everyone starts to play or sing at exactly the same time in the same way. The releases, however, are overlooked. A release is how you end a phrase, and that is as important as how you begin a phrase. Once again, everyone has to end the phrase at exactly the same time in exactly the same way. Listen to the Eagles’ “Hotel California” for examples of attack, release, and phrasing of both guitar and vocals. Getting the attacks and releases to fall together is essential to making a good record (you hardly ever hear an attack or a release that’s off anymore), because if they’re off in any way, the part just won’t sound tight.
Turnarounds

Another often-overlooked portion of a song that needs to be tight is the turnaround between sections, like the one or two bars between the verse and chorus, chorus and verse, verse and outro, chorus and bridge, and so on. This part requires a lot of focus because it’s played a little differently from the rest of the section. For the drummer, it’s usually a tom or snare roll into the next section, but unless it’s a build, most players inexperienced in recording will usually just randomly play something over the roll. This doesn’t work, because a turnaround requires a precise line that has to be played in order to stay tight with the drums. As an example, listen to the bar before each new section of Lynard Skynard’s hit “Sweet Home Alabama.”

Most neophyte bands (and even some experienced ones) don’t think about the turnarounds too much, and so it’s your job to make them aware. Make sure that every player has an exact part to play and that all parts work together and sound tight (a good idea for the rest of the song as well).
Every song needs the perfect tempo to groove. One of the things you discover early on when making records is that something as small as a single bpm (beat per minute) can make a big difference in how a song feels. Just a little too slow, and the song seems to drag; a little too fast, and it feels uncomfortable or becomes difficult to play. Therefore, it’s really important that you establish the song’s ideal bpm rate before you record it.

Determining the best bpm for a song is pretty easy if the band is learning a cover song and the tempo is therefore already established, but when band members are working out one of their own songs, finding that perfect tempo can be a challenge. I’ve found that the best way is for the writer of the song to play it by him or herself and establish the tempo that feels right. After you determine the bpm that the writer has established (you need some sort of metronome or click for this), then the entire band should play the song at this tempo a few times. Even if the song feels just fine, it’s still best to move the song’s tempo up a couple of bpm, then down a couple, just to see how it feels. You might find that just going a little bit slower or faster can make a big difference. If the song is difficult to perform, backing it down a few bpm’s might make it easier to play, whereas playing it faster might give the song more urgency.
It’s really important that you don’t get sucked into the “faster is more exciting” syndrome. Typically, the only thing you get from playing a song faster than at its established tempo is sloppy playing, lack of dynamics, and no groove.

Playing a song at its correct tempo (especially something that is already slow, like a ballad) is especially difficult, because it requires a lot of concentration to play slowly with precision and also stay in the pocket. Once again, the best way to overcome any anxiety about losing the excitement is to relax, exaggerate the dynamics, and concentrate on the start and stops and the attacks and releases.
The age-old argument about playing to a click will never go away, but it’s easier to do now than ever before because most players (especially drummers) learn to use one so early in their career. Some musicians play better to a click than others, and that’s just a fact. The most widely used session drummers work so much because they make playing to a click sound as though they’re playing to their own inner beat, and that’s the big trick.

* I realized that I really could play to a click and make it breathe at the same time, and that really is an important thing for drummers to learn. If you play to a click, don’t be so focused on the click that you lose sight of the fact that you’re actually playing a song.
  —Session drummer Brian MacLeod

While you’re recording, I’d recommend using a click if at all possible. Doing so will make the job of the engineer, programmer, editor, and anyone doing overdubs a lot easier. It will even make your mix better, because it’s easier to time delays and reverbs. That being said, if the band sounds too stiff while playing to a click, then use it only to get a feel for the tempo for, say, the first 16 bars, then turn it off. Sometimes just having it for the intro of a song can do wonders in keeping the tempo locked. Also remember that it’s not uncommon to increase the tempo by a bpm during the chorus to push the band a little. This requires that the tempo be premapped in the DAW (digital audio workstation), but this trick successfully mimics what a player might naturally do without a click and is used all the time in record making.

### Timing Is Everything

- Be sure that the song and section starts and stops are tight.

- Be sure that everyone plays any accents the same way.

- Make sure that the song grooves.

- Be sure that everyone plays the attacks and releases the same way.

- Be sure that everyone plays the turnarounds the same way.
Find the right tempo for the song.

Use a click if doing so makes the song feel better.
If you’re making a record, it’s important that every instrument be in tune. Being out of tune is one of the most serious offenses that can occur during a recording session, yet it’s also one of the easiest to control. Young musicians with stringed instruments (horn players, too) sometimes overlook this critical aspect of playing, partially because they’re either unsure exactly how precise they need to be or their ear is undeveloped. Once upon a time before cheap electronic tuners were abundant, everybody was a little out of tune. If you don’t believe me, just listen to a few records from back in the ‘50s and ’60s.

By the ‘70s most recording musicians discovered the Conn Strobotuner (see Fig. 6.1), an electronic tuning device developed primarily for tuning pianos. Using a Strobotuner was an expensive ($350 in 1970’s money) way to get in tune, but it made all the difference in the world. This fueled the demand for an inexpensive version, which resulted in the models that you can purchase for as little as ten bucks today (see Fig. 6.2). Since tuners can cost so little and do so much (far more than their predecessors could), there’s no excuse for any musician not to own at least one, and to know how to use it.

Fig. 6.1: A Conn Strobotuner
But just having one position on the instrument in tune isn’t enough. It’s absolutely imperative that the instrument be properly intonated, which means that the instrument plays in tune in any octave up and down its playable register (up and down the neck, for guitar and bass players).

Good intonation on guitars and basses can be tricky to achieve at best. Just like on a piano, an instrument is always slightly out of tune at some point up or down the neck. A new system called the Feiten Tuning System, developed by session guitar player Buzz Feiten, solves this problem, but requires a qualified pro to install it because it involves resetting the bridge and the nut. The bottom line is that the closer everyone is to being perfectly in tune, the better the band will sound.

But having an instrument that’s in tune with itself is only half the battle. You’re not really in tune until all instruments in the band (except for the drums, of course) are in tune with each other.

You might think that just because each player uses a tuner that everyone will be in tune with each other. Not so fast—there are a couple of complications. First of all, all tuners are slightly different, and even though one tuner might indicate that an E string is in tune, that particular reading can differ ever so slightly from another tuner’s, either because of the way it’s being read or because some of its internal settings have been accidentally adjusted to something other than the standard 440 Hz A note. The easy way around that is for everyone in the band to use the same tuner or own the same brand and model.

But that’s not enough. Everyone who’s going to use the tuner (guitar and bass players, horn players) should get together to make sure that they’re all reading the meter the same way. That way there won’t be any confusion as to what an E really sounds like.

Finally, after everyone tunes it’s best to all play a couple of chords together just to make sure that nothing sounds sour. If it does, go back and look at how each player is using the tuner, and I bet you’ll find that someone is reading it a little differently than everyone else. A few times at rehearsal will probably tell everyone exactly what they need to know to make sure that their instrument will be in tune from that point on. But in this day and age with an abundance of available inexpensive and accurate electronic tuners, there’s no excuse to ever be out of tune.
Play in Tune

Be sure that all instruments are intonated.

Be sure that everyone reads the tuner the same way.

If in doubt, have everyone use the same tuner.
PART 2

THE MECHANICS OF PRODUCTION
The most crucial time in the entire recording process is before you actually record, which is known as preproduction. Almost always, the more time you spend in preproduction, the smoother the recording will go. In preproduction the songs are chosen, arrangements are worked out, and parts are learned so well that the only thing to concentrate on during recording is the execution.
Getting to Know You

Preproduction is often so much more than the process of working out songs. For a producer working with a new artist or band, it’s a time of getting to know each other. It’s important for the producer to learn the likes and dislikes of the artists he or she is working with—in addition to their working habits and idiosyncrasies. Knowing these things can help the producer determine how far to push a singer, or discover what gets the best performance out of the guitar player, or see the signs of when the drummer is getting tired, or recognize which are the hot-button issues of the day in order to stay away from them. If you’re going to be working closely with an artist, even for a short time, the more you know about him, the better you can serve the project.

One of the most important aspects of getting to know an artist is learning what music she loves, was influenced by, and is listening to now. Back in the days of the vinyl record, one of the most effective ways of doing this was for the producer to go to the artist’s house and have them throw a bunch of albums from their collection on the floor and then describe what they liked and didn’t like about each one. You can still do this with CDs or an iPod playlist. Among the questions to ask might be the following:

▶ What do you like or dislike about the artist you’re listening to?
▶ Do you like the sound of the recording?
▶ What recordings do you like the sound of?
▶ What are some of your favorite records? Why?
▶ Who are your biggest influences? Why?
▶ What do you like about the projects I’ve done? Why?

You can add any number of questions to those above, but can you see where this is heading? This is the information that you need to help attain the artist’s vision. It gives you a common point of reference so that you can say, “Let’s go for a sound like the lead guitar on The Cure’s ”Boys Don’t Cry,” and have the artist know exactly what you mean because you’ve found out in preproduction that’s one of his favorite songs. Or if the artist says to you, ”Can we get the sound like on the Arctic Monkey’s “Still Take You Home,” you’ll know exactly what he’s talking about.

Getting to Know You

Learn about the artist as a person.

Learn the artist’s likes and dislikes.

Learn the artist’s influences.

Learn what the artist is listening to.
Selecting the songs for the project is usually determined by how much preproduction time you have. If you don’t have a deadline to worry about, you might work on songs that have strong hooks but are incomplete or have a weak arrangement or structure. If you don’t have a lot of time, however, you might use only the songs that are in the most record-worthy shape—ones that you know will sound good and that you can therefore easily record.

As I said in chapter 5, songwriting is a craft, and the more of it you do, the better it gets as you learn what works and what doesn’t. The more you record, the more attuned your ear becomes to what to listen for with arrangements, so an artist or band that’s on their fourth album will have songs that sound much more together than an artist or band on their first record. Because of that experience, the songs will be in better shape, any changes can be made faster, and the preproduction time will be shorter.

It’s always a good idea to work up at least one extra song in addition to the ones intended for recording. There are two reasons for this: first, if an intended song just doesn’t sound right during basic tracking, you’ll have an alternative available. Second, sometimes you have a little extra time during the basic tracking stage because recording a track went faster than you anticipated, so it’s nice to take advantage of that extra time and use it wisely by working on another song.

### Selecting the Songs

- What songs are in record-ready shape?
- What songs need work on the song structure?
- What songs need work on the arrangement?
- Is there a song that can be used as an option if another one doesn’t work in the studio?
Preproduction Rehearsals

The preproduction rehearsal is the stage during which much of the heavy lifting of the project takes place. This is when the songs get honed until they’re deemed ready for recording. Here are a number of tips and tricks to get the most out of your preproduction time.
For players to hear the nuances of their parts and determine how to integrate those parts with all the others in the band, they need to be able to hear themselves and everyone else equally well. One of the problems that young bands have is that they tend to crank up the volume before they learn a song or work on any changes to its parts or arrangements. It’s best to learn a song or change any parts at low level first so that everyone can hear each other’s parts, and then play it at normal stage volume once things have been worked out. This will save you a lot of time later when you have to go player by player and part by part to find out why something isn’t sounding right.

In fact, sometimes the best rehearsals are the ones that happen in someone’s living room only acoustic guitars and drum pads are used. These kinds of rehearsals can be surprisingly effective, since it’s easy to hear what everyone’s playing and especially easy to hear the vocals (it’s great for working out harmonies). Of course, bands that have been gigging for a while find working this way a lot easier than do new players who’ve been together for a short time.
A really good rehearsal technique is to set up in the round so that everyone is facing one another, instead of setting up the way they would on stage. This configuration allows each person to hear him or herself really well. It’s also the way that almost everyone records, since it’s so important to have eye contact when you’re doing a take. When people play in the round, everyone has to control their volume a bit so they don’t blow out their fellow band members, but that’s not such a bad thing, is it?
A FEW REHEARSAL TIPS

No matter what kind of music you’re producing, the following rehearsal tips can help things go a bit smoother and enable you to get the most out of your preproduction time.

▶ When going over a song, stop as soon as there’s a train wreck and work it out. Talk it over to see what everyone is playing, then play just the problem section until everyone gets it. Sometimes the problem may be in the middle or at the end of a section, so if the band is able to play just that section, great. Most bands, however, find it easier to start four bars before or even at the beginning of the section to work it out. That’s okay—whatever it takes to make things sound great!
▶ Find the part of the song that needs the most work and concentrate on that first. Slow the song down to a tempo that’s easy for everyone to play, and then gradually bring it up to speed until everyone can play it cleanly.
▶ Sometimes it’s best to start with the chorus, especially the out chorus, since it usually repeats. If a band is working on groove or tempo, the out chorus is the section of the song that’s played the most, and probably has the song’s hook, so it’s easy to remember. Starting with the out chorus can give the band confidence about playing the rest of the song.

Preproduction Rehearsals

Make sure that everyone can hear everyone else.

Practice in the round standing next to the same players as when you record.

Stop when there’s a train wreck.

Concentrate on the part of the song that needs the most work first.

Slow down the tempo so that’s it’s easy for everyone to play, then gradually bring things up to speed.
No matter how well preproduction rehearsals seem to go, it’s important to make a preproduction demo recording too. Why? You never really know how a band sounds until they’re recorded. Also, getting band members out of their safe and comfortable environment will make them play differently. Psychologically, it helps a band to know that when things sound different in a new environment (as they will when recording takes place) that it’s not necessarily a negative thing.

The preproduction demo doesn’t have to be expensive. In fact, the cheaper the better. Even someone’s old 8-track recorder will do, because you don’t care about track count as much as discovering just what each instrument is playing. What you’re trying to learn is how well everyone is playing together and whether the arrangements and song structures work.

Don’t spend too much time recording the demo. A couple of passes of each song at the most is all that’s necessary, unless there’s a major train wreck. Performance mistakes are okay, as long as you can hear the complete form of the song. Don’t worry about overdubs or layering unless it’s for a quick run-through to check out an idea. Perfection is not the objective for the demo; obtaining information about the song structure, the arrangement, and the individual parts is.

After you listen to the recording, or even just listen to playbacks while recording, it should be apparent what needs to be fixed or improved (which should take place at another round of rehearsals). Listening will also help the players as they hear what they’re playing against everyone else. It’s not uncommon to hear comments like, “I didn’t know you were playing it like that,” during a playback.

The idea behind all of this is to get the parts down so that the real recording can be done efficiently and with no surprises, and so that the players can concentrate solely on their performances instead of having to learn new parts. Many times, by the time a player learns the new part in the studio, his performance has suffered so much it takes an additional session just to capture a great performance. Spending an ample amount of time in preproduction will hopefully eliminate that scenario.

**The Preproduction Demo**

- Doesn’t have to be expensive
- Is just for checking how all the parts work with each other
- Doesn’t have to take a lot of time
- Is only to find out what needs to be fixed
How Long Should Preproduction Take?

The length of preproduction time has a major impact on your recording time, since it’s ultimately determined by the songs that you pick to record. The more preproduction time available, the more time you have to work on songs that aren’t all together. The less preproduction time available, the better off you’ll be picking songs that are ready to go, even though they may not be the best. You always hear about label acts that work things out in the studio, and you’ll have to assume that no matter how well prepared you are some of that will happen anyway. But the purpose of this book is to get you through a recording project efficiently and easily on a limited budget.

It’s always better to spend more time in preproduction than production: for one thing, it’s a lot cheaper, and for another, it’s less stressful. Below is a guideline that I like to use, but realize that each situation is unique, and so these numbers might not be in the ballpark for your particular project.

For a band that’s never been in the studio before, allow time in the schedule for the following:

▶ At least two rehearsals of preproduction per song to be recorded
▶ One session to record a demo
▶ One rehearsal for each song for fixes as a result of the demo

That means for a ten-song album you’d spend 22 rehearsals (ten primary songs plus an optional song x2 = 22 rehearsals), a day for the demo, and another 11 rehearsals for fixes—for a total of 34 rehearsals.

For a band of studio veterans who’ve made records before, allow time in the schedule for the following:

▶ One rehearsal of preproduction per song to be recorded
▶ One session to record a demo
▶ A half-rehearsal for each song for fixes as a result of the demo

That means for a ten-song album you’d spend 11 rehearsals (ten primary songs plus an extra optional song = 11 rehearsals), a session for the demo, and another 6 rehearsals for fixes—for a total of 18 rehearsals.

Of course, so many other factors come into play that could make you take these guidelines and throw them in the trash can. The band could be on its fifth album and everything might be so together that a lot less time is needed. Or maybe the band wants to record live for a really raw-sounding punk record with no overdubs, so a lot less time is needed. Maybe it’s a jazz or blues band, with little beyond the basic 12-bar song structure with few overdubs and layering. Or perhaps the band has limited time for rehearsal because of touring or family commitments. All these factors play into how much preproduction time you’ll need or get.

Preproduction Length

The more preproduction time spent,
the smoother the recording.

The more studio experience the musicians have, the less preproduction time will be needed.

Don’t assume that you can work something out in the studio.
It’s the Little Things That Count

As we’ve been saying throughout this book, it’s the little things, the nuances, that make a song sound great. We’ve talked about these things before, but let’s list them again, because these are the things that you’ve got to have down.

▶ Everyone must know their parts inside out.
▶ The starts and stops in the song must all be played together.
▶ Everyone must be able to play the same part the same way every time (except if it’s jazz or blues).
▶ Everyone must know the dynamics of the song.
▶ All rhythms must be in the pocket and the songs must groove.
▶ The turnaround between each song section must be defined.
▶ Attacks and releases for each part must be executed together.
▶ The sounds of each instrument must be layered so that nothing clashes frequency-wise.
▶ The tempo must be right for the song.
▶ The band must be in tune.
▶ All vocals must be in the best range for the singers.
▶ Background vocals must be defined and tight.

These are the things that you should be concentrating on during preproduction rehearsals.
Preparing for the recording session requires a great deal of planning and choosing between options that only you, the producer, can do.
Initial Decisions

Before the first session begins, a host of decisions have to be made that range from the mundane to the important. Here’s an overview of the many production considerations a producer is confronted with in a typical project.

▶ **Who is the engineer (or engineers)?** Your choice of who engineers the project is critical, and, like many other aspects of production, this is not an element to cheap out on. Having a great engineer is your safety blanket. He’ll make things sound great even with gear that’s not up to snuff and provide useful technical advice, audio expertise, and even production suggestions when you need another opinion.

Many producers will use a top engineer for basics and mixing, and a less experienced engineer for overdubs in order to save some money. While this can work, the continuity of having the same engineer all the way through a project will keep the quality uniformly high and actually save time and money, since there’s the possibility for confusion when projects are handed off between engineers. Even if you’re an engineer perfectly capable of recording the session yourself, it’s still a good idea to hire an engineer for the basic tracks. Both engineering and producing take a lot of concentration, and it’s the rare person that can do both at the same time well.

▶ **Is any rental gear required?** Even the most well-equipped studio in the world probably still won’t have something that you’ll want or need for the session, be it an esoteric piece of audio or musical gear, or just something that’s essential for you to get your desired sound. Make sure you plan ahead for when you’ll need the rental, and then schedule around that. An example of this can be seen with the rental of a grand piano or a Hammond organ: you want to use it as soon as it arrives, instead of paying rental time for it to just sit around until you can get to the parts that need it.

▶ **What’s the best time of day to record?** This question can actually be a loaded one. While most bands would rather start early in the day to stay fresh, many singers don’t feel as though their throats open up until later in the day. While you might need only a guide vocal from the singer when the basics are being recorded, you certainly don’t want the singer to be harmed or feel abused, and herein lies the dilemma. You don’t want to start recording too late in the day, since you might end up having someone burn out early and lose the advantage of a few hours of the daily rate that you’ve paid for. While starting the session at 10 a.m. might not work, try to start no later than noon if possible. Working too far into the night can upset your body clock if you’re not used to it.

▶ **Are there any additional musicians required?** Once again, it’s best to plan as far in advance as you can so you can schedule the other players as needed. The more players you need to have together at one time (like a string or horn section), the more time in advance you’ll need in order to book them.

▶ **What format and sampling rate will you use?** While it’s possible that you might still want to break out an analog tape machine to record your basics, chances are that at some point in the project you’ll return to the comfort and flexibility of a DAW (most likely Pro Tools). Your
The choice of bit depth and sampling rate can be critical to the amount of hassle that you’ll encounter down the road. Here’s a chart that can help you make your choice.

Table 8.1: Advantages and Disadvantages of Recording Formats

<table>
<thead>
<tr>
<th>Sampling Rate/Bit Depth</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>192 kHz/24 bit</td>
<td><strong>PROS:</strong> Sounds fabulous. Is as close to the real deal as you can get. <strong>CONS:</strong> Expensive. Uses a lot of disk space, and you might need extra A/D and D/A converters. Requires a lot of computer processing on a big session. The Pro Tools track count maxes out at 36.</td>
</tr>
<tr>
<td>96 kHz/24 bit</td>
<td><strong>PROS:</strong> With the right convertors, this rate can sound a lot better than 48/24. <strong>CONS:</strong> Processing and track count are cut in half in some DAWs. At the very least, the track count will drop due to maxing out the transfer rate of the disk drives. Some home studios aren’t capable of 96/24. Not worth the hassle under normal circumstances.</td>
</tr>
<tr>
<td>48 kHz/24 bit</td>
<td><strong>PROS:</strong> The best combination of audio quality with a minimum of hassle. <strong>CONS:</strong> The final mix must be transcoded to 44.1/16 for CD.</td>
</tr>
<tr>
<td>44.1 kHz/24 bit</td>
<td><strong>PROS:</strong> Native resolution for CD. <strong>CONS:</strong> Not the way to go if you have any plans for making a DVD or video, as those formats require a 48 kHz sampling rate because you have to transcode your final mix.</td>
</tr>
<tr>
<td>48 kHz/16 bit</td>
<td><strong>PROS:</strong> The only choice for music intended for video, if you want to stay with the native resolution and not transcode your final mix. <strong>CONS:</strong> None, since you don’t have a choice.</td>
</tr>
</tbody>
</table>

Here are some simple guidelines for choosing sampling rate/bit depth:

- If you want a good compromise between audio quality and amount of hassle, choose 48 kHz/24 bit.
- If you’re recording loud music like rock or rap, choose 48 kHz/24 bit. The higher sampling
rate doesn’t buy you enough discernible sound quality to make it worthwhile.

- If you’re recording music for film, the standard is 48 kHz/24 bit.
- If you’re working on music destined for television, 48 kHz/16 bit is the standard. You can start at another sampling rate or bit depth, but you still have to end up here.
- If you’re producing acoustic music like jazz, bluegrass, or classical like a piece for string quartet, 96 kHz/24 bit will provide a discernible improvement in audio quality.
- While 192 kHz/24 bit sounds great, use it only if your engineering team is comfortable in that domain and can guarantee you a hassle-free session. This is not a format to experiment with, since it usually requires lots of extra gear yet gives you fewer tracks to work with (the format cuts the available tracks approximately in half from 96 kHz, which is already approximately half of 48 kHz).
- Don’t mix sampling rates. While you might be tempted to use different sampling rates on different songs, do so only if your engineering team can assure you that it will be hassle free. A 96 kHz session might not be a big deal at one studio, but might be impossible to play if you move to another. Why limit your choices?
- What’s the order of recording? Choosing the song order for the tracking sessions is one of the most strategic decisions that a producer can make. Most producers like to start off with something relatively easy so the band members get comfortable with the studio and gain confidence in their playing. One school of thought says that the most difficult song should be recorded right after that first easy one so that you tackle it while you’re fresh and you have the ability to come back to it later if need be.
- What studio or studios will you be using? It’s entirely possible that you’ll be using more than one studio to record your project, as is the norm these days. Oftentimes you’ll use a studio with a room large enough to record drums or the rhythm tracks, and then move on to a smaller and cheaper room for the overdubs. Then you might end up in a totally different studio for mixing, which brings up the following points about selecting a studio.
Selecting a Studio

The studio or studios you choose may be critical to how well the project comes out as well as how much time it takes to complete. A studio affects a project in so many ways that it’s almost impossible to determine what the most critical item is. Everything from the acoustics to the equipment to the vibe to the staff to the location are all factors to consider when making your final decision.

Let’s look at each of these factors individually:

▶ **The location.** Location is important for some artists and not so much for others. Some might want the studio to be located as close to home as possible, while others might want to be as far away from possible distractions (like fans or family) as they can get, which is why residential studios out in the country are so popular. Sometimes, just a little extra drive time might take an artist out of her comfort zone. For example, an artist who lives in West L.A. or Santa Monica wouldn’t even consider driving to a studio in Burbank or Glendale even though it’s less than 20 miles away. Sometimes even driving to downtown Hollywood can be too far at less than 10 miles.

▶ **The vibe.** Every studio has its own vibe, which stems from its location, decor, cosmetics, and staff. Some studios are high tech and sterile, while some are funky yet comfortable. Some artists will perform better in a studio located in an industrial park that reminds them of their rehearsal facility (see Fig. 8.1), while others respond better to something that’s modern and ultra slick (see Fig. 8.2). Usually, the longer you stay in a facility, the more the vibe matters, so that factors into your final selection as well.

![Fig. 8.1: Some artists perform better in a smaller studio.](image)
The staff. Nothing can turn a client (that’s you and your artist) off as much as a disengaged or an incompetent staff, so be sure to check with other producers and get recommendations before booking a place. A great staff can easily make up for many shortcomings of the studio if the people are fun and accommodating, but there needs to be a core competence in the basics of studio management first. The deal. You may want to book a great place that everyone wants to record in, but if you can’t afford it, it doesn’t matter much. Remember, however, that a studio’s advertised rate usually isn’t its final price. Most studios will cut you a deal off the “book,” or advertised rate, depending on several factors including how busy they are, how long you intend to stay, and whether you have a reputation as being a hassle-free client. Talk to the studio manager or owner; tell him what you need and how much you are able to spend, and you might be surprised how accommodating he can be.

The studio size. Are you going for full-band takes, or are the drums the only instrument you intend to record for basics? This factor will determine how large a recording room you’ll need as well as the type of isolation that will be required for each instrument. If you plan on tracking an entire band at once, the size of the tracking room will be critical since larger is definitely better. Unfortunately, most of the really old large studios are now a thing of the past, but most commercial studios can accommodate at least a rhythm section. If you’re creating mostly electronic music with a few overdubs, then you may want a studio with a larger and more comfortable control room and only a small overdub area.

The acoustics. Most commercial studios have a recording room that sounds reasonably good, but each studio will sound different depending on when it was built. Throughout the years, studio acoustics have gone back and forth in popularity between reflective, “live”-sounding rooms and relatively dead rooms, and you want to be sure to book a room that will provide the sound you’re going for. Generally speaking, rock and live recording (like jazz) tend to work best in a live room, while R&B and dance works better in a dead room, although these
are broad generalizations and there are certainly plenty of exceptions. You’ll find a lot more live rooms available though, as the dead-room era was mostly a by-product of the late ‘70s disco era. Remember, it’s a lot easier to deaden up a live room than it is to liven up a dead-sounding room.

- **The gear.** Sometimes the gear that a studio has is the determining factor in helping you decide which studio you’ll use. Maybe the studio has an API console (or even just a rack of their mic preamps) and you like the way they sound on a rock band you’re about to produce. Maybe the studio has a great collection of vintage keyboards or guitar amps. Maybe the studio has a great microphone locker. All these things play into your selection of the right studio for the project.

It’s always a good idea to pick the best studio you can afford when recording the basic tracks. As noted before, the basics are critical to the outcome of the final product, so this isn’t the place to skimp. Overdubs might be a different story, as you’ll see in chapter 10.

### Selecting a Studio

- Location
- Vibe
- Staff
- The deal
- Studio size
- Acoustics
- Gear
If you’ve booked a commercial facility, chances are that you’ll have an assistant engineer assigned to your session. Don’t underestimate how important this individual can be to you, as the assistant is the key to making your life easy as you record. If the assistant is really good, he can provide the following:

▶ Intimate knowledge of the studio and its quirks, from where the best-sounding places in the room to record are, to what the contents of the mic locker are, to which mics are working well, and to what the idiosyncrasies of the console and patch bay are (if the studio has one).
▶ A great working knowledge of the house Pro Tools system (or whatever DAW you choose to work with).
▶ The scoop on where the best places are to order take-out or get food delivered from, as well as where the best nearby restaurants are.
▶ Information about any musical instruments and amps that the studio may have, as well as the rental services available.
▶ Information about any house computer systems and wireless network connections.
▶ Documentation of the session, from track sheets (yes, they’re still used) to mic-placement charts and setup pictures to marking the console tape.
▶ A good pot of coffee!

Above all, a great assistant is transparent. When you really need him, he’s there, and all other times, he’s in the background but always paying attention to what’s going on. If the assistant sees a problem, he tells the engineer at the appropriate time, and it’s the engineer’s job to take care of it. A good assistant never displays a bad or negative attitude, and always leaves his or her ego at the door.

### Initial Decisions

Who will the engineer be?

What gear will you need to rent?

What time of day will you record?

Will you need to hire additional musicians?

What record format and sampling rate will you use?
Basic tracks, or “basics,” are the initial recordings of the rhythm section that are done prior to any overdubbing or “sweetening.” Basic tracks are the foundation for the music being recorded and for any other parts that come afterward. If there’s something faulty in the foundation, it will either be impossible or very costly in time and money to fix things later. That’s why it’s essential to make each basic track the best it can be.

Regardless of whether you spend a little or a lot of time in preproduction, have a good handle on the songs or are just winging it, or are able to visualize the final outcome or not, recording basic tracks is where you either make the project or break it. Even if you had a great preproduction, you never really know how things will record or what unforeseen circumstances will pop up until you get there.

While the end product might be difficult to hear in your head with the stripped-down basic track (unless you’re recording the entire band at the same time), it’s still important to get a great vibe and feel for the song even if you can’t “hear through it.” I remember playing with a multitrack tape of Fleetwood Mac’s huge ‘70s hit “Dreams” during a recording-console demo, soloing the exceptionally isolated hi-hat and thinking, “You can tell this song’s a hit just from the hi-hat!” The feel and vibe were so strong that it was undeniable just from that one instrument. That’s what you’re going for during basics.
What Are Basic Tracks?

Basic tracks can consist of any of the following instruments, depending on the song, artist, project, or genre of music:

- The drums by themselves
- Drums and bass
- Drums, bass, and guitar
- Drum, bass, and keyboard
- Drum, bass, guitar, and keyboard
- The entire band, regardless of how many instruments

Any of the above may be accompanied by a vocalist singing a scratch, or guide, vocal. A scratch is a vocal that’s used only as a guide so that the players know where they are in the song. It’s not intended to be included in the final version, although sometimes it’s so good that the singer can’t beat it during overdubs.

In modern recording, sometimes the only thing that’s intended to be kept for the final version when recording basics is the drums, even though other instruments are played at the same time. The theory is that if the drum track is great, everything else can be replaced as an overdub later. If that’s the case, isolation of the drums becomes of paramount importance, since any leakage of other instruments such as a guitar or bass may clash with later overdubs.

That being said, most veteran producers would prefer to get a great basic recording of as many instruments as possible at the same time, since the elusive “vibe” of all the musicians playing together usually can’t be duplicated any other way.
For a multiday session, the first day of tracking is also setup day. Usually it takes about a half day for everyone to get settled in, the engineer to get sounds, and the musicians to get their headphone mixes together. Somewhere during the second half of the day is when the band should be recording, even if all you really want to capture is the drums. If you’re lucky, you might get a keeper take on the first day, but I find that it’s usually when everyone comes in fresh the next day that the real work starts to get done. Even if you get what you think is a great take on the first day, be prepared to try it again when you’re fresh on day 2. You might be surprised by what you get.

For a budget session in which you have only a single day to record, you want to get set up and recording as quickly as possible, certainly within the first hour after the musicians arrive. The best way to do this is to communicate to the studio all the details about the session, including how many instruments there will be, what particular mics or studio gear you’d like to use, how you’d like the outboard gear set up, whether you’ll be bringing your own hard drive, what recording format should be used, and what rental gear should be expected (your engineer will usually handle most of this for you). If the studio is already minimally set up before you and the musicians arrive, your setup time will be cut to a minimum.
How Long Are the Sessions?

Most studio time is sold on the basis of a 12-hour “lockout.” This means that while you get charged for only 12 hours, no one else can use the studio for the other 12, and so all your gear and the gear in the control room can remain set up. You can negotiate with the studio about what happens if you decide to go beyond the 12 hours. Will you be charged an hourly rate? Will you have to pay only for the assistant (the usual case)? Or will you have a 24-hour lockout, during which you can go all day and all night and not be charged extra?

The lockout mentality can play heavily on the session’s consciousness. Since you’re paying for a 12-hour day, it’s not uncommon to want to use every minute’s worth by staying in the studio long past the burnout stage. This can be counterproductive as a whole, since the burnout tends to catch up with everyone in all the successive recording days, making it harder and harder to concentrate and therefore making the useful time spent in the studio shorter and shorter.

Studio pros have found that it’s best to keep your days to a reasonable eight or nine hours, pushing past that only if you’re really close to something great and everyone wants to continue, or if a deadline looms. One of the producer’s main jobs is to sense when the burnout point has been reached and to call an end to the session at that time.

**Session Length**

Most studio time sold as 12-hour lockout.

What are the costs after 12 hours?

Best to keep session length reasonable to avoid burnout.
Getting Sounds

There was a time in the ‘70s when a few high-budget projects would spend an entire week just trying to get the right snare drum sound. While they might’ve been in musical snare drum nirvana, 99.99999 percent of sessions have to move faster than that, and they should. The more time you use before you start to record, the less time you’ll spend recording, since the attention span of the players decreases proportionately to the time spent getting sounds. Although you want things to sound as good as possible, a poor-sounding track with a great vibe is a lot more usable than a well-recorded but musically stale track.

Still, dialing in sounds is a necessary evil in recording, and at least some amount of time has to be allotted for the task. A good producer knows when to move on when, for example, the engineer is just trying to dial in the final 5 percent of the sound and it’s taking too long; similarly, he knows when to continue even when the sound really isn’t working.
Having the right equipment plays a big part in getting the best sounds, and it’s the producer’s role to make sure that happens. It’s not uncommon for all sorts of instruments to be rented for tracking and overdubs. For instance, one of the tricks to getting a great drum sound is to have a great-sounding drum kit first, or to at least have the drummer’s current kit tuned by a pro. In major recording centers like New York, Nashville, London, and Los Angeles, companies like Drum Fetish (owned by drum luminary Gersh Gershunoff), Drum Paradise, and Ross Garfield’s Drum Doctors (see Fig. 9.1) provide cartage, maintenance, tunings, and rentals for L.A.’s top session drummers as well as any band entering the studio. Just to show that even the big-name bands with all their resources still need some help when it comes to getting drum sounds, artists like the Foo Fighters, the Red Hot Chili Peppers, Dwight Yokum, Bruce Springsteen, and Tom Petty and the Heartbreakers (among many others) have used Drum Doctors in the studio. Similarly, bands like The Who, Yes, Bon Jovi, and Motley Crue and producers like the Neptunes, Don Was, Rick Rubin, and Joe Chiccarelli have used Drum Paradise before recording their past Platinum-selling records.

Fig. 9.1: Drum Doctors
Playing a gig is distinctly different from playing on a recording session. What works on a gig won’t always translate to the studio, either playing-wise or gear-wise. You choose your gear for a live gig based on its versatility, durability, and general ruggedness, but the only thing that counts in the studio is the sound.

While one size might fit all on a gig, it will usually make for a boring recording, especially if a player is recording more than one part or playing on more than one song. The sound issue doesn’t necessarily apply if you’re playing on a demo (for that, the performance is what’s most important), but for most other serious recording dates, gear makes a profound difference. Each player should make every effort to bring a variety of the best-sounding gear he can, because it will not only make the recording sound better, but will also make the music a lot more interesting.

While it seems like a no-brainer for most other musicians to have lots of alternative sounds available, this advice also applies to drummers. It’s not uncommon for a drummer to use different kits for different songs on an album, change the tuning according to the song, or change out the snare drum. The fact that most session drummers come with five or six snare drums to each session tells you all you need to know about being prepared.

Here’s the reality of today, at least with the stuff that I do. There are always budget considerations, so I generally bring 6 [snare drums]. I could bring 30 snares, but then the cartage bill goes up and, to be honest, you’re usually way covered with the 6 snares because no one is ever asking, “What else you got?” past that. So I bring three different sizes of wood and three different sizes of metal drums. That’s not including if I go to do an orchestral date, where I’d bring about eight different orchestral snares.

—L.A. session drummer Bernie Dresel
Having well-maintained gear is essential for the musician who’s making a record. Everything is expected to work perfectly, with no tuning problems, no extraneous noises, and no “intermittents” (when the audio cuts in and out or crackles). Not only does everyone’s gear have to work, but it also has to be in tip-top condition. The better everything works and sounds, the better the recording will sound. This is the least you should expect from each player, and it’s your job to tell them this before the downbeat of day 1. Of course, studio musicians and musicians who already have a fair amount of recording experience will know this already.

The drummer should, at minimum, make sure that all the drums have new drumheads, the drums are in tune, and the pedals are oiled so they don’t squeak. Guitar and bass players need to make sure their instruments are properly intonated so that they play in tune anywhere on the neck, none of their cables are crackling, and their amps don’t buzz or hum. A keyboard player must know her way around each keyboard so well that she can easily get to any sound that’s requested, and, as with guitar and bass players, her gear and cables must work flawlessly. For a horn player, none of the valves or keys can stick, and no extraneous noises should come from the instrument. Like everyone else, string players should show up to a session with their best-sounding instruments for that particular application.
IS VINTAGE GEAR NECESSARY?

Although not always the case, the most desirable and collectible gear does seem to have a way of sounding the best on a recording. That being said, even if the guitar player owns a ’57 Les Paul or the bass player has a ’62 P Bass or the drummer has a ‘72 Black Beauty snare or the keyboard player has an original Minimoog, if it doesn’t sound good or it has an operating problem, you’re much better off using something newer that works well. Just because an instrument is worth a lot of money doesn’t mean that it sounds good or is going to work on a session.

But the fact of the matter is that a lot of the revered vintage instruments do sound great for recording, providing they’re in top working order. Ever wonder why a vintage Les Paul or a Strat or a P Bass or a Plexi Marshall or a ‘59 Fender Bassman (see Fig. 9.2) or a ’60s Ludwig drum kit or a Hammond B-3 or a Mellotron (see Fig. 9.3) are so coveted that they’ve all been reissued to sound as much like the original as possible? It’s the sound, of course, and using one of these items can instantly get the sound that everyone might be looking for, and therefore help the part fit better in the track. That’s why you always see or read about what seems to be some of the same gear from session to session, concert to concert, video to video, and in article to article. With some experience, players eventually learn what makes them sound their best, and certain instruments, amplifiers, effects, and accessory brands and models are just tried and true (when properly maintained, of course).
That’s not to say that inexpensive gear isn’t worth having, too. If it has a unique sound, inexpensive equipment can have a place in a session. In reality, musical gear in any price range is far better today than it’s ever been. In fact, ever since about 1985 or so it’s become difficult to buy something that doesn’t perform at a reasonably high level of quality. Automated manufacturing has driven the price down and raised the quality up in a way we never could have imagined in the ’50s, ’60s, and ’70s. That being said, the homogenization of manufacturing has taken the character out of most of today’s low-cost instruments, and they all sound pretty much the same.

One of the reasons that vintage gear has such a draw is that there’s a difference from instrument to instrument because much of it was handmade and the tolerances were much broader then than they are now. As a result, sometimes a drift in tolerance because of human error (for example, an instrument constructed on a Monday morning or on a Friday afternoon before quitting time) resulted in magic that’s still difficult to duplicate. And the fact that the wood and metal are aged can’t help but give an instrument a sound that’s different than something new off the shelf.
Okay, so what’s tried and true that usually works? Here’s a quick and very incomplete list of instruments, amps, and accessories that are prized for their sound (and for their collectibility the older they get). I’m not recommending that you run out and buy or rent any of these, but if you get a chance to listen to any of the instruments mentioned below for just a couple of minutes, that will give you a good reference point as to why they’re so sought after.

**Guitars**

- **Epiphone Casino** (as used by John Lennon)
- **Fender Stratocaster** (the most widely played guitar in the world, with the models from 1957, 1963, and 1967 being the most desirable from a collector’s standpoint)
- **Fender Telecaster** (the ‘52 Reissue is a good example of the best model released over the many years)
- **Fender Telecaster Deluxe or Custom** (with humbucking pickups)
- **Gibson ES-335** (the “dot neck” versions that use simple dots for position markers are the most desirable to collectors)
- **Gibson Firebird** (as used by Johnny Winter). See Fig. 9.4.
- **Gibson J-45** (also an acoustic standard)
- **Gibson Les Paul Deluxe** (with smaller humbuckers), used extensively by Pete Townsend during the ’70s
- **Gibson Les Paul Goldtop** (the original Les Paul with two single-coil P-90 pickups instead of the standard humbuckers)
- **Gibson Les Paul Junior** (an entry-level Les Paul favored by Billy Joe Armstrong and Leslie West)
- **Gibson Les Paul Standard** (the most expensive vintage instrument on the market today, and some say the best guitar ever made—especially between 1957 and 1960)
- **Gretsch 6120** (this hollowbody Chet Atkins-style guitar was used on a variety of huge hits, including The Who’s “Won’t Get Fooled Again”)
- **Gretsch Silver Jet**
- **Guild F-412** (the only acoustic built from the ground up as a 12-string)
- **Martin D-28** (an acoustic standard)
- **Rickenbacker 360** (the guitar responsible for the British Sound)
- **Rickenbacker 360-12** (a 12-string version of the 360)
- **Coral/Dano Electric Sitar**
Guitar Amplifiers

- 1959 Fender Bassman (some think this is the best guitar amp ever made)
- Any blackface Fender (has a black control panel with white nomenclature, hence the name)
- Any brown-covered Fender
- Any tweed-covered Fender
- Fender Deluxe Reverb (has a different circuit design than most Fender amps that makes it sound different when overdriven)
- Hiwatt Custom 100
- Marshall 1968 Super Lead head
- Marshall JMP head with model 1960 cabinet (the sound of British hard rock)
- Marshall JTM-45 combo (the sound of Eric Clapton with the Bluesbreakers)
- Marshall Plexi (has a control panel made out of plexiglass, hence the name)
- Mesa/Boogie Mark I (as preferred by Carlos Santana)
- Roland Jazz Chorus 120
- Vox AC30 Top Boost (has extra factory-installed circuitry that gives it more overdrive than a standard AC30; the sound of Brian May of Queen)
Fig. 9.5: Fender Deluxe Reverb

Basses

- Danelectro Longhorn (see Fig. 9.6)
- Fender Jazz basses (‘60s, ’70s, and even ‘80s)
- Fender Precision basses (’60s, ’70s, ’80s)
- Gibson EB-2 or -3
- Hofner Beatle bass
- Kaye Jimmy Reed bass
- Music Man StingRay
- Rickenbacker 4001
Fig. 9.6: Danelectro Longhorn Bass

Bass Amplifiers

- Acoustic 360 (the bass sound of the ‘70s)
- Ampeg B-15A (the standard for the studio; see Fig. 9.7)
- Ampeg SVT (the standard for touring that is occasionally used in the studio; Elliot Randall played the lead on Steely Dan’s famous “Reelin’ In the Years” through one)
Pedals

- Boss CE-1 Chorus Ensemble
- Cry Baby Wah (Vox-Dunlop)
- DigiTech Whammy Pitch Effect
- Dynacomp (MXR-Dunlop)
- Electro-Harmonix Big Muff Pi

Fig. 9.7: Ampeg B-15A—the studio standard
Electro-Harmonix Deluxe Memory Man
- Fuzz Face
- Ibanez Tube Screamer (the older TS-808 and TS-9’s are the most desirable for their sound; see Fig. 9.8)
- Maestro Tube Echoplex
- Musitronics Mutron III
- MXR Phase 90
- Octavia (Tycobrahe-Roger Mayer)
- ProCo Rat
- Roland RE-101 Space Echo
- Uni-Vibe (Shin-Ei-Univox)
- Vox V847 Wah (the original, and some say still the best)

Fig. 9.8: Ibanez TS-9 Tube Screamer

Keyboards
- Fender Rhodes Stage 88 or Suitcase 73 electric piano
Hammond B-3 (or A-3 or C-3, which have the same electronics in a different cabinet) with a Leslie 122, a 145, or a 147 (which are all basically the same, except for the cabinet size or the type of connecting cable)

- Hohner D6 Clavinet
- Mellotron M400
- Minimoog
- Wurlitzer Model 120 or 200 electric piano (see Fig. 9.9)
- Yamaha C7 grand piano (a studio standard)

**Fig. 9.9: Wurlitzer Model 200A electric piano**

**Drums**

- Gretsch Round Badge kit (‘50s and ’60s; the logo is a round badge)
- Gretsch Stop Sign Badge kit (‘70s)
- Ludwig Aerolite snare drum
- Ludwig Black Beauty snare drum (’70s)
- Ludwig Keystone Badge kit, ‘60s (see Fig. 9.10)
- Ludwig Supraphonic 6½” snare drum
- Noble & Cooley 5½” maple snare drum
The broad reach of contemporary, vintage, and boutique gear appropriate to use on recording sessions runs the gamut from affordable entry-level instruments and pedals to the most expensive musical equipment on the planet. Most often, you get what you pay for, and the pricier pieces sound best. There are exceptions though, like that time when the cheap no-name snare a drummer bought at a yard sale for 20 bucks really made a track come alive. Whatever works is always the best choice.

### Getting Sounds

Live gear is different than recording gear.
If there’s one instrument that producers and engineers alike seem to obsess over, it’s the drum kit. And well they should, since drums are the heartbeat of virtually all modern music. Wimpy-sounding drums can make for a wimpy recording regardless of how well everything else is recorded.

The problem is that, for any number of reasons, most drummers’ kits simply don’t record well. Whether it’s because of old beat-up heads (the worst offender), bad tuning, uneven bearing edges on the shells, or defective hardware, drums that might be adequate or even great sounding in a live situation don’t always make the cut when put under scrutiny in the recording studio.

While many producers and engineers are willing to spend whatever time it takes to make the drums sound great, most don’t have the know-how or the time to improve the sound of the set before it gets under the mics. As a result, virtually all big-budget projects either rent a kit specifically for recording or hire a drum tuner, because no matter how great your signal chain is, if the drum sound in the room doesn’t cut it, then there’s not much the engineer can do to help (despite what the makers of outboard gear and plug-ins might tell you). But just what constitutes a great-sounding drum kit?
While the definition of the word “great” is different to different people on a general level, in the studio the word usually means that a kit is well tuned and free of buzzes and sympathetic vibrations. This means that when you hit the rack tom, the snare doesn’t buzz and the other toms don’t ring along, and when you hit the snare, the toms don’t ring along. So how do you achieve this drum nirvana? It’s all in the tuning and the kit maintenance.
Here are a few tuning tips to tame those puppies down, courtesy of the famous Drum Doctor:

If the snares buzz when the toms are hit,

▶ Check that the snares are straight.
▶ Check to see if the snares are flat and centered on the drum.
▶ Loosen the bottom head.
▶ Retune the offending toms.

If the kick drum isn’t punchy and lacks power in the context of the music,

▶ Try increasing and decreasing the amount of muffling in the drum, or try a different blanket or pillow.
▶ Change to a heavier, uncoated head like a clear Emperor or PowerStroke 3.
▶ Change to a thinner front head or one with a larger cutout.
▶ Have the edges of the drum recut to create more attack.

If one or more of the toms are difficult to tune or have an unwanted “growl”:

▶ Check the top heads for dents and replace as necessary.
▶ Make sure that the tension is even all around the top and bottom heads.
▶ Tighten the bottom head.
▶ Have the bearing edges of the drum checked and recut as required.

Recording the Drum Kit

Drums that sound great live won’t necessarily record well.
The key to recording great basic tracks is to ensure the focus of the participants and comfort of the players. Although the environmental comforts are helpful, a musician will play or sing her best when she hears herself well and in the correct proportion to the other players or singers. That’s why the headphone (or the “cue”) mix is so important.

Perhaps the greatest detriment to a session running smoothly is players being unable to hear themselves comfortably in the headphones. This is one of the reasons that veteran engineers spend so much time on and give so much attention to the cue mix and the phones themselves instead of letting the assistant do it. In fact, a sure sign of a studio neophyte is when someone treats the headphones and cue mix as an afterthought, instead of spending as much time as required to make them sound great. While it’s true that a veteran studio player can shrug off a bad or distorted phone mix and still deliver a fine performance, having good “cans” makes a session go faster and easier, and removes a variable that is quite possibly the biggest detriment to a session.
Perhaps the best thing to come along in recent years has been the introduction of relatively inexpensive personal headphone systems. These systems allow the musician to control the headphone mix by supplying him with up to eight channels to control. Each headphone mixer also contains a headphone amplifier that can (depending on the product) provide earsplitting level. Manufacturers include Furman, Oz Audio, Aviom, and Hear Technologies (see Fig. 9.11). As above, it's best to provide a stereo monitor mix (what you're listening to in the control room) as well as kick, snare, vocal, and whatever other instruments are pertinent.

Fig. 9.11: Hear Back Headphone System
Many bands are so used to playing live on stage that they just can’t get used to, headphones, and therefore can’t perform well in the studio. Here’s a way that allows them to get what they need while recording without having to wrap those tiny speakers around their heads.

- The key to not using headphones in a spread-out recording situation is to keep the amps about ten feet away from the players, and then have the players sitting or standing pretty close to the drums. Having everyone situated that close together helps them psychologically, as well as minimizes the minute acoustic delay that can occur when the players are spread out too far.
- If there are two guitar players, set them up on opposite sides of the kit. This will provide a better stereo picture for the leakage.
- At times (like at a gig) a floor monitor will work well for scratch vocal. Sometimes if you’re trying to place the singer in the same room with the band, you’ll get a better performance if you use one. Just as with the guitar and bass amps, you may need to move the floor monitor around until you find the right band balance.
- Most of the time the singer will gravitate to the spot in the room where the band’s balance is best.
To Click or Not to Click

Using a click track, or recording while listening to a metronome, has become a fact of life with most recording. Not only does playing at an even tempo sound better, but it makes cut-and-paste editing between performances in a DAW possible and easy. Having a track based on a click also makes delay and reverb timing easier during mixing.

Playing to a click can present a number of problems, however, such as leakage of the click into the mics, and exposing the fact that some people just can’t play on time to save their lives. We’ll cover these aspects shortly.
Many times just providing a metronome in the phones isn’t enough. What good is a click if you can’t hear it, or worse yet, groove to it? Here are some tricks to make the click listenable but able to cut through the densest mixes and sound like another instrument in the track, too.

- **Pick the right sound.** Listening to something that sounds more musical than an electronic click is better to groove to. Try a cowbell, a sidestick, or even a conga slap. Needless to say, when you pick a sound to replace the click, it should fit within the context of the song. Many drummers like two sounds for the click: something like a high go-go bell for the downbeat and a low go-go bell for the other beats, or vice versa.

- **Pick the right number of clicks per bar.** Some players like quarter notes, while others play along better with eighth notes. Whichever you’re using, it will work better if you put more emphasis on the downbeat (beat 1) than on the other beats.

- **Make it groove.** By adding a little timed delay to the click (quarter notes, eighth notes, or triplets) you can make it swing a bit and it won’t sound so stiff. This makes it easier for players that normally have trouble playing to a click. As a side benefit, this can help make any bleed that does occur less offensive, because it will sound more like a part of the song.
Okay, now the click cuts through the mix, but it cuts so well that it’s bleeding into the mics. You’ll find this occurs mostly with drummers (who often want to hear the click at near ear-splitting levels) and string players (who play very quietly and therefore need the gain of the mics turned up). To avoid bleed, try one of the following:

- **Use a different set of headphones.** Try a pair that has a better seal. The Sony 7506 phones provide a fairly good seal, but Metrophones Studio Kans, Vic Firth SLHls (see Fig. 9.12), and even the Radio Shack Racing Headphones (they’re mono, though) will all isolate a click from bleeding into nearby mics.

![Vic Firth SLHls](image)

*Fig. 9.12: Vic Firth SLHls*

- **Run the click through an equalizer.** Then roll off the high end just enough to cut down on the bleed.

- **Have the players use one-eared headphones.** Many times players will leave the phones loose so they can hear what’s going on with the other players in the room. If they can have click in one ear (in a headphone that’s sealed closely to the ear), and get the live room sound in their free ear, then they can live with a click that’s lower in volume. One-eared phones have become almost standard for ensemble recording for horn and string sections, and are sometimes preferred by vocal groups as well (see Fig. 9.13).
Send the click to just one player (like the drummer or the conductor) and let him or her communicate the click to the band or orchestra.

If all else fails, try the following method. It might also provide the loosest feel and best groove.

1. Put a single mic in the room.
2. Play the song three times with the click and record it on a single track only!
3. Choose the best version of the three versions.
4. Use this track for the drummer to play to instead of a click.
Using the above method, the drummer can hear the rest of the band and play along through headphones so that there should be very little bleed. Once the drums are recorded, the session can progress as normal.
Let’s face it, not many people like to play to a click. It’s unnatural and doesn’t breath the way real players do. But in this world of drum machines, sequencers, and DAWs, most musicians have grown used to playing with some kind of metronome.

However, there are those times when a click just won’t work for whatever reason. The performance suffers so much that you get something that isn’t worth recording. No problem. Don’t get obsessed with the click or the fact that the tempo fluctuates without it. Many great hits have been recorded without a click and with waverin temporos ("What a Fool Believes," a Song of the Year Grammy winner for the Doobie Brothers, comes to mind). Remember, feel and vibe are what makes the track, not perfection.
Leakage Is Your Friend

Acoustic spill (known as leakage) from one instrument into another’s mic is often thought of as undesirable, but it can and should be used to enhance the sound. Many production and recording novices are under the mistaken belief that during a tracking session with multiple instruments, every track recorded must contain only the instrument/source that the mic was pointed at. Since that’s pretty hard to achieve, why not just use the leakage to embellish the tracks instead?

Instead of trying to eliminate leakage, great attention should be paid to the kind of leakage being recorded. Leakage can be used as a sort of glue between instruments in much the same way that instruments blend together in a live situation.

So when tracking with multiple instruments, try keeping the players and their gear as close to one another possible. That will not only help the players communicate, but the leakage will contain more direct sound than room reflections, which will sound better. This might cause the overdubs to clash with the basic tracks, so it’s best to have keeper tracks from all the instruments in order to get the desired effect.
The Scratch Vocal

While experienced studio players can cut a great track without a guide, or scratch vocal, almost every player would prefer to have one to play against. The guide vocal not only acts as a cue for certain sections of the song, but also adds to the groove and feel that helps a player perform at his or her best. One of the other advantages of using a scratch vocal is that the lead singer can give directions and reminders to the players as the song progresses.

I have two separate crews that play on Carrie Underwood records, and both of them know full well what her sound is and what she likes. Once they get out to their respective positions in the studio, they’ll play through the song without Carrie on the mic and get an arrangement that is fairly tight. But let me tell you something; once Carrie gets out there on that mic, everything changes. She starts singing, and the level of excitement and musicianship goes through the roof. It happens every single time. When a great singer gets on mic, it inspires everybody.

The same thing happens with Reba. It’s just that intangible thing that occurs when a truly gifted singer gets on that mic.

—Mark Bright

There are no particular rules about how to cut a scratch vocal. Some vocalists don’t mind being in a vocal booth while performing a scratch vocal, but almost all vocalists want to be able to see all the players while recording a song, because they dislike feeling disconnected from the rest of the band. As a result, many singers prefer to be out in the room with the other players. The scratch track won’t sound as good in that situation because of the leakage (mostly from the drums) that will occur, but if it helps the performance of the band and vocalist, that’s what you want to do.

Many lead singers, producers, and engineers may take a scratch vocal lightly since it will be redone at a later time under better conditions, but the smart producer is always prepared just in case magic happens that can’t be repeated. Treat the scratch vocal seriously, because you never know when you might capture lightning in a bottle.
Don’t Forget to Record a Tuning Note

It’s always a good idea to include a ten-second tuning note before each song, especially if the band’s sound isn’t based around an instrument with a solid tuning that doesn’t move, like a Hammond organ. This way, if for some reason you happened to use a tuning that was a couple of cents flat, you have the tuning note as your reference. This seems like such a small thing, but you wouldn’t believe how much time it can save you down the road if a situation arises where you just can’t figure out why everything sounds out of tune.
A recorded count-off is important for those times when an overdubbed pickup part is required before the song starts. Even if you’re playing to a click that’s being generated by the DAW itself, recording the click at least four bars ahead of the downbeat is a foolproof way to make sure that any pickup or opening part is easily executed.

If a click isn’t being used, it’s even more important to record the count-off. Have the drummer click two bars before the count with his drumsticks, and then count, “1, [click], 2, [click], 1, 2, 3, [silent click].” Sometimes a count with the last two beats silent is used instead, like this: “1, [click], 2, [click], 1, 2, [silent click], [silent click].” This is plenty of count for the band to get the feel, and having the silent clicks on the end makes it easy to edit out later without having to worry about clipping the downbeat.
Using studio musicians is always one of the dicier calls that a producer has to make. There must be a strategic value involved when making this decision, because it may have long-term consequences that can ultimately sink a project unless you’re extremely diplomatic about it.

If you’re producing a band and someone just isn’t cutting it (often the drummer during basics), you have two choices. You can either piece together an acceptable take from a number of performances (made easier today in this digital world of ours), or you can hire a “ringer.” If bringing in a studio musician causes such bad blood that it will have a negative effect on the rest of the record, then it’s not worth it, so using a session player is usually a last resort. It’s a lot easier to hire in players for instruments that the band members don’t play, like horns, strings, maybe keyboards, and percussion (but ask the drummer to do percussion first for diplomacy’s sake).

If a solo artist wants to use her backup band to record and they’re not cutting it, your decision is less challenging since the artist wants the best product and the players are hired guns anyway. You probably won’t get too much resistance about replacing a player in this situation.
Listening to Playbacks

Bringing the players into the control room to listen to a playback can be disruptive, or it can be constructive if, for example, it is used to strategically bolster the momentum of the session. If the players listen to a playback after every take, the energy slows down as they file into the control room and then back out afterward. It usually takes a minute or two for them to get comfortable again, which can take you further away from the perfect take rather than closer.

One of the best ways to get your point across yet keep the energy high is to be selective about control room playbacks. It’s usually best to bring the players in for a listen after the first couple of takes, after they’ve become comfortable with the sound and studio. At that point, hearing a playback can serve as a reference point for where they currently are and where they have to go. Don’t bring them back into the control room until they either have what might be a keeper take or would benefit from another listen in order to play something better. Fewer trips to the control room will help keep energy high and momentum going forward.
Session Breaks

One of the best abilities a producer can develop is knowing when it’s time to take a break. Sometimes a ten-minute break can pump new energy into a flagging session, so the producer always has to keep his finger on the pulse of the players to gauge their concentration. The danger is that you’ll call a break just as the players are getting in a groove and it will be difficult to get it back after the break, but usually the players will either tell you that they want to keep going, or confirm that a break is needed. It’s usually best to figure on taking a break every three hours or so, depending on how the session is progressing.
DINNER BREAKS

Dinner breaks can be dangerous in that they must be handled with care so you’re able to get the players back in a groove afterward. If the break is too long, it may take an equally long time for the players to get their focus back. The same applies if you allow them to leave the studio to eat somewhere else, which is why it’s always better to have food brought in. One of the biggest problems to avoid is having a large meal, since normal digestion naturally slows down a player’s ability to concentrate. Keep the mealtime short, the portions small, and allow absolutely no alcohol so that everyone stays fresh and the session is kept on track.
Knowing when you have the keeper tracks that you need to make a great record is one of the more difficult assessments for a producer to make during basic tracking. The ultimate is a flawless performance with a great groove and lots of feel, but achieving all three attributes is elusive. Know that given enough time and enough takes, getting the perfect take is within your grasp. It’s not uncommon to do dozens of takes until the perfect one occurs (Jimi Hendrix’s landmark “All Along the Watchtower” was take 28).

But sometimes it’s best to determine that although the track is not perfect, you have enough to work with. Can you cut and paste several takes together to get what you need? Should you move on to another song and return to this song later for another try? Once again, whoever is paying you will have dictated their needs before you begin tracking. If your job is to get however many songs finished within a certain period of time, then you might have to settle on some less-than-perfect performances to meet the deadline. If your job is to get the best possible product, then you might throw the time schedule and budget out the window.

Either way, basic tracking can be over in a few hours (as in the case of recording a straight-ahead jazz project) or can continue for months or even years (like a big-budget legacy band), but it’s up to the producer to make the call that the mission of capturing exactly what’s needed for this phase of recording has been accomplished.
CHAPTER 10

Overdubs

The overdubbing stage can be something as simple as fixing or replacing some of the basic tracks (like the bass, rhythm guitar, solos, and lead vocal) or as complex as adding sophisticated layering of horns and strings, multiple guitars, keyboards, and background vocals. It’s also the phase of the project during which the most experimenting is done, since even the most meticulously designed parts sometimes don’t work and require some alteration.
When budgets get blown out the window and the project begins to fall behind schedule, the overdubbing stage is usually responsible. If a producer is doing his job correctly, each overdub is finely crafted to complement every other musical part of the song. This crafting takes a lot of work, since the overdub has to have the right sound and the part has to musically fit like a glove with all the others. That’s why it’s best to have a list of priorities of which overdubs are the most important and absolutely must be recorded; that way, you can make sure not to fall behind due to experimentation and extra ideas.

The overdub priority list should go song by song and might look something like the following:

**“Sunshine of Your Life”**

Lead vocal

Lead vocal harmony (2nd and 3rd B section)

Guitar solo

Keyboard, fix 2nd verse

Keyboard line, 2nd and 3rd verse

Background vocals (choruses)

Background vocals (last verse)

Guitar double (chorus and bridge)

You can see just what overdubs are expected on the song and how they rank in terms of priority, with the last entry (guitar double) being the least important. Having a list like this will help you plan your overdubs and let you know just what you can eliminate if you start to get behind budget-wise or time-wise.
Most artists share the common trait of having a creative streak that provides them idea after idea for parts, lines, embellishments, and enhancements. The more creative the artist, the more the ideas spring forth, and that’s the problem. Sometimes an artist has so many good ideas that it takes a lot of time to try them all, and before you know it, you’re behind schedule. That’s bad enough, but an abundance of ideas can move a song away from its true intention, even detracting from the original inspiration. An example would be an artist who writes a straight pop song, but then just has to hear how it sounds with a reggae feel. While the song might be great with the new style, it might not contain the essence of the artist’s original inspiration. It’s up to you as producer to put a hold on the experimentation and focus the energy back to where the artist shines best.

Sometimes an artist will come up with good idea after good idea for new lines and parts during overdubs, and while most of them might work, they just make the song different and not better. Again, it’s up to you to focus the energy of the artist and musicians back to where it needs to be and make the decision that the original direction is the best one to follow.

Sometimes an artist’s massive creativity can work in your favor, though. For example, if you’re not sure about the original feel of the song, expressing that to the artist will get his creative juices flowing and before you know it, a better idea will appear. But usually the artist’s first inspiration is the best, and it’s probably the one that attracted you to him in the first place.
Time to Experiment

It always happens at least once in the overdub phase. A musician plays something during warm-ups or plays something by mistake during recording that lights up the whole studio and the producer says, “Can you play that again, but do something different on the end?” Or “Can you play it like that in this section instead?” And then the chase is on to capture that lightening in a bottle and pour it over a part or section that was lacking before.

But things are never as simple as they seem, as the once-brilliant part is changed to fit the new section or tweaked to better serve the song. A quick pass turns into hours, and before you know it you’ve spent the entire day working up this single part. That’s usually the way these things go during overdubs. By the time everyone has worked out the perfect part, the player is too tired to perform it in a convincing manner.

During these times when an entirely new part is being worked out, I’ve found that it sometimes takes two sessions to really make things happen. The first day you take that brilliant seed of an idea and work it out, and the second day is when the idea flowers and you can properly execute it. Keeping this fact in mind can save you countless extra hours at the end of a long day: leave the idea alone and come back the next day when everyone is fresh. It’ll probably be performed perfectly on the first take.
When Artistic Block Hits

Sometimes you know the song or the part needs something, but no one can come up with a suitable idea. It’s easy enough to leave it for the next day when everyone is fresh, and chances are that a new idea will indeed spring forth. But in those few times when everyone runs up against a total creative block, there’s always Oblique Strategies (see Fig. 10.1).

First published in 1975 and now in its fifth edition, Oblique Strategies is a set of cards created by U2 producer Brian Eno and artist Peter Schmidt that are used by artists of all types to get beyond artistic block or to find a new direction. Each card contains a phrase or cryptic remark that can be used to break a deadlock or help resolve a dilemmatic situation.

Here are a few examples of what a card might say:

▶ “State the problem in words as clearly as possible.”
▶ “Only one element of each kind.”
▶ “What would your closest friend do?”
▶ “What to increase? What to reduce?”
▶ “Are there sections? Consider transitions.”
▶ “Try faking it!”
▶ “Honour the error as a hidden intention.”
Fig. 10.1: Oblique Strategies cards

You can find out more about Oblique Strategies at [www.rtqe.net/ObliqueStrategies](http://www.rtqe.net/ObliqueStrategies). To use the strategy cards online, go to [music.hyperreal.org/artists/brian_eno/oblique/oblique.html](http://music.hyperreal.org/artists/brian_eno/oblique/oblique.html). There is also an Oblique Strategies iPhone app available.
Limit the Attendees

Sometimes overdubs go faster and smoother if band members other than those playing, friends, and entourage are not allowed in the control room. Too many people can spook a timid performer or, worse yet, sway her to perform for the crowd instead of focusing on the job at hand. If visitors or band members must come to the studio, keep them out of the control room and have them stay in the lounge until the part is complete.

In general, it’s best that any wives and husbands, girlfriends and boyfriends, friends and associates, and hangers-on and nonessential people not be allowed to come to the sessions except in extraordinary circumstances (like a playback party or delivering a forgotten instrument). The more people, the more likely the gathering will become a party, and a party is not conducive to recording. There’s a time and place for a group to gather, but it’s not here. Unless certain people are essential to the task at hand, have them stay at home.
Regardless of who’s playing and what kind of instrument they’re using, it’s always best if you can get them to record in the control room with you. This is easy with guitar, bass, electronic keys, and even vocals, but tougher with everything else. Having the immediacy of communication, not to mention the absence of headphones, will usually get a much better performance out of the player.

Most studios are now equipped with the cables and hardware to keep an amp in another room while the musician plays in the control room. Playing in the control room is usually not an option for more than one player at a time (which probably won’t happen during overdubs anyway, unless it’s a horn, string, or vocal section) or with instruments that are quiet, like some percussion, acoustic guitars, and strings.
While it seems like recording blasphemy, many vocalists hate headphones and would much rather sing in the control room with a hand-held stage mic like a Shure SM58 (see Fig. 10.2). This might not win you any high-fidelity awards for vocals sounds, but a great performance will trump audio quality any day. And the sound of most stage mics, while certainly not as high fidelity as a multi-thousand-dollar vintage Neumann, is better than you might think (as long as it’s in good condition) good enough for just about any recording purpose when routed through a high-quality microphone preamp.

Fig. 10.2: Shure SM58 microphone—popular for live use
Overdubbing Techniques

There are several commonly used overdubbing techniques that every producer should be aware of. Although the following techniques refer to vocals, they can be used for just about any instrument.
If you’re in the same studio where you tracked your basics, don’t fall into the trap of keeping the exact same instrument setup in the same place in the studio as your basics (unless you’re doing fixes to the basic tracks). Move the singer or instrument into the big part of the studio. All instruments sound best when there’s some space for the sound to develop. You can cut down on any unwanted reflections in the room by placing baffles around the mic, the player, or the singer.

Fig. 10.3: Move to the big part of the studio for overdubs
The technique of doubling a lead vocal has been used for as long as multitrack recorders have been around. The Beatles did it way back when they were using only 4-track magnetic tape and really didn’t have a track to spare, which tells you how powerful a tool doubling can be.

Doubling a vocal (having the singer sing the exact same line or phrase twice and playing back both parts) works for two reasons; it makes a vocal sound stronger, and it masks any tuning inconsistencies in the part.

While the doubling technique can work for a great number of vocalists, sometimes it just doesn’t sound good if both vocal tracks are replayed at the same level. Try adding the second vocal at 6 to 10 dB less than the track you deem the strongest. This will add a bit of support to an otherwise weak vocal without sounding doubled.
An offshoot of doubling is called vocal stacking, a technique normally used on harmony background vocals. Like doubling, stacking can make a harmony vocal part sound stronger while smoothing out any tuning inconsistencies.

An example of vocal stacking would be a three-piece vocal group singing a three-part harmony section. After their first pass is complete, they double their parts singing them exactly the same way, then triple-track it or more, all in an effort to get a bigger, fuller sound. One little trick that makes a stack sound bigger is to have the vocalists take a step back from the mic with every vocal pass while the engineer increases the mic gain to compensate for the distance. The increased ambience of the room will naturally enhance the sound without artificial means. (Check out the DVD that came with this book for an example.)

Another trick is to have the vocalists change parts with every pass. In other words, the vocalist singing the highest part of the three-part harmony would move to the lowest, the one singing the mid part would move to the highest, and one singing the lowest part would move to the mid part. Of course, this assumes that the vocalists are pros and capable of changing vocal parts without too much of a problem, and that their voices are capable of performing the new parts.
Instruments can be doubled or stacked the same way that vocals can, and while using the exact same performance twice (doubling) can sound pretty good, you soon reach the point of diminishing returns unless you change something up to make it sound different. A different mic, mic preamp, room to record in, or distance from the mic will all help to make the sound bigger on subsequent overdubs.

For guitar, using two different guitars (a Les Paul and a Strat, for instance) and two different amplifiers (a Fender and a Marshall is the classic combination), combined with different pickup settings, will allow a multitude of guitar tracks to live together more effectively in the mix. Many times you’ll find that fewer overdubs are needed if each guitar overdub has a distinctly different sound.
One of the best techniques for obtaining a great vocal is to compile a master vocal track by using bits and pieces from a number of previous passes. This is known as “comping” and has become a standard method of obtaining a great take of just about any part.

Comp'ing is also a method preferred by a great number of vocalists, since it makes their job fairly easy. After the vocalist warms up, have her sing her part at least three times (the more the better, since you have more choices later), and then send her home. It’s now up to you and your engineer to comp a master track together.

_When we do vocal day, we’re talking about upwards of 20 to 23 passes per song so it takes a long time to put a song like that together. What you get with that many passes is the perfect pass._

—Mark Bright
While you can comp a track from only two passes, the more passes the better—up to a point, that is. Using too many passes can get confusing and take too much time to sort through. The ideal number of passes is four or five, although many producers will have the vocalist sing the song until he or she gets it almost perfectly before they move on to additional passes for comping. Regardless of how many passes are made and what the quality of the performances are, if you take good notes during each pass, you’ll find that your comp can be finished in no time.

Make no mistake about it, note taking is the key to this process, and it’s best done while each vocal pass is being recorded rather than during playback later. While it’s possible to comp individual words or even syllables, comping by phrase is the easiest. Here’s how to do it.

1. Get a copy of the lyrics. Make sure that the song is divided into clear phrases.
2. As the vocalist sings, make the appropriate following marks after every phrase:
   “↑” for sharp, “↓” for flat, “G” for good, “VG” for very good, “X” for bad, “?” for if you can’t decide
3. Create a line that’s numbered “1” for ”first pass“ and make your marks on that line. Do the same for each pass.
4. After each phrase that the vocalist sings, place a mark underneath it (see Fig. 10.4) to indicate your rating.
By the end of the vocalist’s last pass, you’ll have a pretty good idea of which phrases are the keepers. You’ll also have an idea of which phrases don’t have an acceptable take, and you can ask the vocalist to just give you that line until you have what you need.

After all the passes, see if you can piece together a vocal of all VG phrases. If a phrase with a VG mark doesn’t sound as good as you originally thought, go to the G marked vocals and see if one is acceptable. If you can’t find one that works that’s marked VG or G, go through the other passes to see if a “?” pass works. If you still can’t find an acceptable take, go through the passes again and listen to the passes that you marked with an X to see if you change your mind about one of the phrases that you considered unacceptable before.

If you still have a phrase that isn’t as good as you need, either comp by word or syllable instead of by phrase, or use Antares Autotune to get what you need.

Comp ing is standard session procedure these days and is used not only on vocals but also on tracks of all sorts, so it pays to get good at it. The technique will give you great results and save you a lot of time as well.

Overdubbing Techniques
Use the big part of the studio for overdubs.

Doubling and instrument or vocal can make it sound stronger and mask tuning inconsistencies.

Stacking background vocals can make them sound bigger.

Obtain a great performance from pieces of previous performances by comping.
One of the most important parts of production in the world of DAWs is editing. Editing means creating a near-perfect performance by moving the timing of a note or phrase either manually or with an app like Beat Detective; replacing a note or phrase (or even the entire track) with one from another take by using cut and paste; or using Autotune, Melodyne, or any of the many other pitch-correction programs to correct the pitch of a note or phrase. Using these methods, you can make just about any track with shaky timing or tuning almost perfect.
TIMING MISTAKES

But is perfection what you really want? It’s easy to get carried away and start to edit with your eyes instead of your ears, meaning that everything gets lined up to a grid or quantized, making the track lifeless and sterile sounding. Sometimes the unevenness of a performance is what makes it exciting, not its timing perfection. The real test of a producer is knowing when a part needs to be fixed and when to let it be, and that only comes with experience.

One method I like to use that’s the best of both worlds is to fix only the parts that jump out as having bad timing when played in context with the other tracks. For instance, if the entrance to the song has the bass hitting before anything else, that would get fixed. Or if a guitar loses its feel for a couple of bars in a verse so that it becomes an obvious timing mistake, then that would get fixed. Only the timing mistakes that are completely obvious get fixed.

Another method is to make sure that the major hits of the song (any entrances, accents, downbeats, or last notes of a section) have all the instruments lined up and in time, while the other parts of the song are left as they were played. This keeps a loose feel yet still sounds tight and professional because all the major points of the song are tightened up. Of course, if anything during the song should feel out of time, that would also get fixed as well, as in the example above.

And if you want everything as tight as possible, do the following:

1. Tighten the timing of the drums up either manually or by using Beat Detective (if you’re using Pro Tools). This doesn’t mean that the drums need to be perfectly quantized, only that they should be moved enough to feel great.
2. Move the kick, snare, and bass tracks so they’re beside one another on the timeline, then solo just these tracks.
3. Listen to the entire song and move the notes or phrases of the bass as needed so it’s tight with the drums.
4. Unsolo the kick, snare and bass and listen to the song with all of the tracks engaged. Make sure that the timing adjustments that you just made work. If not, repeat numbers 2 and 3.
5. Mute the bass and move on to another instrument with shaky timing. Solo the kick, snare, and instrument and repeat numbers 3 and 4.
6. Repeat with other instruments and vocals as needed.

Vocals are frequently overlooked during editing, but they play a big part in how tight a song feels. A bad entrance (too early or too late) by a vocal can sometimes fool you into thinking that it’s one of the other instruments instead, but by moving the vocal phrase just a little, the whole passage will tighten up. Be sure to treat the vocal just like the other instruments when editing, because it’s more important to the feel and timing of the song than you think.
The time it takes to edit a project can easily get out of hand if you’re not careful. If a song is executed badly, it’s possible to still make it sound great with editing, but it will ultimately take more time than it would have to just get the performance right in the first place. That being said, it’s not uncommon to spend as much time editing a project as it did both to track it and do all the overdubs! And editing doesn’t come for free unless you’re doing it yourself (in which case you’re paying for it with your time). DAW engineers will charge from $25 to $50 and higher per hour, which can add up to some significant money, even with an editor who’s fast. Still, editing is a necessary evil and you should budget for it in terms of both time and money. When that shaky song comes to life with a tight groove, you’ll be glad you did.

**Editing**

Create a near perfect performance by moving the time of a note or phrase.

Edit with your ears, not your eyes.

Sometimes the unevenness of a performance makes it exciting.

A vocal performance can play a big part in how a track feels.
You’ve been hired as a producer to be the leader of the project. To do that, you’ve got to get the best out of your team, which includes the artist or band, any additional musicians, and your engineer. Knowing how to get them to give you their best effort by working with them in a comfortable, non-offensive way will contribute hugely toward the project becoming a success.

Making great music recordings is the result of many ingredients, but it’s made up chiefly of inspiration, musicality, technology, personal interaction, and most importantly, “vibe.” The feeling that you create in the room at a session is your vibe. The more comfortable everyone is with your vibe, the better they will perform. Here’s a list of things to remember that will greatly contribute to your vibe and the vibe of the session, and will show that you have a professional attitude. If you walk the walk yourself, it’s easier to instill these traits in your team if they don’t have them already.
Be a Professional

This section could just as easily be called “Be a Diplomat,” “Be a Compromiser,” or even “Be a Nice Guy.” What it’s really all about is how to interact with other people who may, or may not, want to do and play things the way you envision them. But before I get into the issue of diplomacy, it’s important that you act as professionally as possible since you’re the leader and everyone takes his or her cues from you. Let’s take a look at the qualities of a professional attitude.

A professional always:

▶ **Is on time.** Time is money, and a pro is not only on time but also usually early. If he’s delayed and won’t arrive at the agreed time, he calls ahead to make sure that everyone is aware of his situation, and then gives his best estimate about when he’ll arrive.

▶ **Is open to ideas.** Instead of arguing about the value of an idea, a pro simply says, “I haven’t tried that before, but I’m really interested to hear what it sounds like!” No idea is too crazy to at least consider, because you never know when something that you initially thought was too far out will be the perfect solution to a problem or a perfect addition to a song.

 worse not aware of It’s like if they’d wanted to use a Radio Shack reverb on my bass: I’d probably say, “Great, I never tried that before. Let’s do it.”

—Session bass player Paul Ill (Christina Aguilera, Pink, Alicia Keys, and James Blunt)

▶ **Focuses only on the music.** When a pro is at a rehearsal, gig, or recording session, he’s 100 percent there in the moment and focused on getting the best results he can. He’s not thinking about the fight with his girlfriend, paying the bills, or going to the party later that night. All his concentration is on the music.

▶ **Presents his ideas in a respectful manner.** He doesn’t say, “You have to play it this way.” He says, “Can you try this to see how it works?”

▶ **Takes responsibility for his mistakes.** A pro immediately owns up to any mistake, oversight, error, or blunder and says, “Sorry, it was my fault,” and accepts the consequences.

▶ **Makes sure never to party on the job.** As stated previously, a pro is 100 percent focused on the music at hand. While a few beers might not constitute a party, it certainly doesn’t help you maintain your focus on the music if your mind isn’t all there. There’s plenty of time to party later, so save it until then.

▶ **Treats everyone with respect.** A pro treats musicians, engineers, and staff as equals and peers and would never intentionally do or say anything to disrespect any of them.

If you assume a professional attitude by following the above points, you’ll find that the respect for
you will grow, any interpersonal tensions will ease, and your session life will suddenly go a lot more smoothly.
The Importance of Diplomacy

One of the greatest talents a producer needs in a team situation like a recording session is knowing how to suggest things without offending others. Artists are usually sensitive people and have “thin skins” by nature. You can be perfectly correct regarding a particular issue, yet still be completely wrong in how you present it. The object is to help get the best out of everyone, not to hurt them.

People who have a talent for choosing their words carefully can use it in a constructive manner, instead of using it to make cutting remarks that can be disrespectful and hurtful. If a player can’t handle feedback and constructive criticism, the problem may well be with the person who’s delivering it, not the one receiving it.

Set an example with how well you can accept the ideas from others without taking any offense, and you will likely find them accepting your ideas much more easily. Diplomacy is a discipline, and one well worth practicing.
Being in any relationship requires at least some compromise, and working with a group of musicians is no different from what you’d expect between family members, friends, bosses, and co-workers. There are times when you just have to bend in order to keep the peace.

While compromise is easy for some people to do, others have a personality that seldom allows it and a conflict occurs. Here are some effective steps that you can take to state your case in a way that should resolve or mediate the conflict.

▶ **Cool off first.** Conflicts can’t be solved when emotions are running hot. Take some time to get away from the problem for a bit and brainstorm on exactly what the conflict is, how it was caused, and most important, what a possible solution would be.

▶ **Present accolades, support, and respect.** The first thing to do is acknowledge the person’s accomplishments and talent. Something like “I want to start by saying that I think the tracks we’ve captured are really great, and you’re playing your parts really well.”

▶ **Analyze why the problem occurred.** If you give a clear explanation of why you think there’s a problem or why the problem or conflict has occurred, you set the initial groundwork for solving the conflict. If the other person knows exactly what your side of the story is, you might find more often than not that you’re both on the same page, but on different sides of it.

▶ **Take responsibility and use “I” messages.** If you are involved in a conflict that you’re aware of, take responsibility and own up to it, but make sure that everything is from your point of view. For instance, it’s best to say, “I think you were flat on that part,” rather than “Everybody knows that you always sing that part flat,” or worse, “You’re singing sucks, man.”

▶ **Describe what “I” or “we” need so that the problem doesn’t happen again.** This is the solution from your point of view. “We really need you to be here a half hour before the session so that you have time to warm up. That way we won’t waste any studio time, which is costing us money.”

▶ **Support their success.** Tell him that you want him to win, because if he wins, so do you. “The better you sound, the better we all sound” or “Do you know how great this is going to sound once you get that part down? It’s going to kill!”
Getting the Best out of Musicians

Even if a musician is completely comfortable with his environment and headphone mix, there are additional things you can do to help him take his performance to another level. Unless you’re a studio pro, most musicians can be very self-conscious about what they’re playing, especially after hearing a playback that uncovers some flaws they were unaware of until that moment. It’s important that their confidence doesn’t flag, and it’s directly up to you to keep that from happening. Here are a few tricks that can help.

▶ **Stay positive.** Regardless of how badly things might be going, how off-key someone is singing, or how out-of-the-pocket someone is playing, never be negative in your body language or your comments. Remarks like “You suck” or “That really sounds bad” never help the situation, and can even completely undermine a performance. If something isn’t going as well as you think it should, give the player a reasonable chance, sit him down for a listen in the control room, and then firmly but respectfully describe why the part isn’t working.

▶ **Explain what’s wrong.** Players hate it when they’re told to “Do it again” without being given any explanation as to why you think what they just played wasn’t good enough. If the take wasn’t a keeper for some reason, explain what was wrong in a kind and gentle way. Statements like “I think you have a better one in you” or “I’ve heard you play it with more excitement before” might work if you can’t put your finger on the problem, but players appreciate it if you can be specific so they can concentrate on that part the next time they play it through. “You’re falling behind the beat every time we come out of the chorus,” is an example of a specific statement. If the player continues to get it wrong, make sure you play the part for him so he can hear it clearly and understand what you’re going for.

▶ **Keep the studio talkback mic on.** Communication is one of the most important yet often overlooked parts of a successful session. Players hate it when they’re speaking to you from the studio and either you’re unaware that they’re trying to get your attention, or you simply can’t hear them. Make sure that the engineer puts up a dedicated talkback mic in the studio and that it’s turned on immediately after every take. It’s important that you don’t miss a single word.

▶ **Keep the control room talkback mic on.** Players also hate it when there are long periods of silence from the control room after a take. They might see a conversation going on, but if they can’t hear it, they can get insecure and feel isolated. You may be having a conversation about what kind of take-out food to order, but as far as the player can tell, you’re talking about how bad his performance was and how you’d like to replace him. Get rid of the insecurity by latching the control room talkback so he can hear you all the time between takes. Once again, communication is the key to a successful session.

▶ **If a player asks to play a part again, let him.** You may think that the player just nailed the ultimate take, but if he feels he can play it better, he usually can. Players inherently know when they’ve messed something up, were late on a chord, mis-fingered or ghosted a note, or slowed down during a roll. Maybe you didn’t hear it, but the player knew it. Let him go again. Thanks to digital recording this is a much easier decision to make nowadays than it was back
in the analog tape days. Back then, you might only have space on tape for a single take, and you could lose a take that was great if the next take didn’t work. That kind of pressure on the producer has now been lifted, thanks to your favorite DAW.
Getting the Best out of Singers

One of the hardest things about making a record is trying to record a vocalist who is uncomfortable. Even a seasoned pro sometimes can’t do her best unless the conditions are just right. Consider some of these suggestions before and during a vocal session.

- Make sure the lighting is correct. Most vocalists prefer the lights lower in the studio and the control room when they are singing.
- A touch of reverb or delay in the headphones can help the singer’s comfort level with the headphones mix since it makes the vocal sound more like the finished product.
- If you need to have the vocalist sing harder, louder, or more aggressively, turn down the vocal track in the phones or turn the backing tracks up.
- If you need to have the vocalist sing softer or more intimately, turn his or her track up in the phones or turn down the backing tracks.
- Keep talking with the artist between takes. Leave the talkback on if possible. Long periods of silence from the control room can be a mood killer.
- If the take wasn’t good for whatever reason, explain what was wrong in a kind and gentle way. Something like “That was really good, but I think you can do it even better. The pitch was a little sharp.” This advice goes for just about any overdub, since players generally like to know what was wrong with a take rather than receiving a “Do it again” blanket statement.
- Keep smiling.
When it comes to vocals in the studio, the three Ps are what a producer lives by. You’ve got to have all three to have a dynamite vocal. And while pitch and pocket problems can be fixed by studio trickery, if you don’t have passion, you don’t have a vocal. Let’s take a look inside the three Ps.
Pitch

Staying on pitch means singing in tune. And not just on some of the notes—on every single note! They’re all equally important. Singing in tune requires real concentration and awareness. If you know your singer has a constant pitch problem and tends to sing either sharp or flat, there are some really simple things to try that might help.

- Singing sharp is usually caused by the power of your voice blanking out any background pitch reference. You’re singing too hard to hear yourself! The fix is easy. Just turn up the lead vocal in the headphones a little.
- Singing a touch flat is easily fixed by asking the singer either to lift his eyebrows or to smile. Smiling is not only recommended, it’s required—and that’s because it provides proper relaxation of the facial, cranial, and neck muscles (this is where it helps to have a good sense of humor).
- Correct head position and correct position of the abdomen are needed to have enough air to stay on pitch. Learning correct positioning is the best reason for any singer to consult a vocal coach for at least a few lessons.
- The more relaxed a singer is, the easier it is to hit the higher notes in her range. Yawning is a recommended warm-up exercise because it promotes relaxation.

Pitch also means following the melody reliably. There’s a trend these days to scat-sing around a melody, and while that might be desirable in some genres, it doesn’t work in any genre if it’s done all the time. Scatting might show off a singer’s technique and ability, but a song has a melody for a reason: that’s what draws the listener in, that’s what they can sing to themselves, and that’s usually what they want to hear.
The Singer Must Hear Herself

In order to stay in tune, a singer must hear herself. How much she can hear herself will determine if she can stay on pitch.

As I stated previously, some vocalists sing sharp when they sing too hard. They push themselves over the top of the correct pitch when they can’t hear themselves in the headphones. The solution is to have either more vocal or less of everything else in the phones, but be aware that pitch and timing problems can also occur if you hear too much of yourself in the mix.

If your vocalist is singing flat, give him a little less of himself or more of everyone else in the mix, since it’s not unusual for pitch to change with intensity. Less vocal makes you want to sing harder (and possibly raise your pitch slightly) and vice versa.

Sometimes the mix can be too dense with instruments, and thinning it out a little can help correct pitch problems. First, add more bass (the root of all chords) and kick (the root of all rhythm) to help with pitch and pocket. Next, turn down anything that is heavily chorused and turn up anything that has a more “centered” tonal frequency (like a piano). Sometimes listening to only the rhythm guitar instead of multiple guitar parts (if there are more than one guitar part) can be helpful, since some vocalists can hear their own pitch better when singing with a simple tonally centered instrument than when singing with screaming guitars or airy synth patches.

Pocket

Being “in the pocket” means singing in time and in the groove, or rhythm, of the song. You can be on pitch, but if you’re wavering ahead or behind the beat, it won’t feel right. All of the things advocated throughout this book that help instrumentalists apply to vocalists as well. Concentrate on the downbeat (beat 1) to get your entrances. Concentrate on the snare drum (beats 2 and 4) to stay in the pocket.

Quincy [producer Quincy Jones] used to say that some singers have it in the pocket of their voice. Supposedly Michael Jackson had such an amazing pocket that he could sing a line and you could build a groove around it.

—Frank Fitzpatrick (Jill Scott, Dave Hollister, High School Musical)

Passion

Passion is not necessarily something that can be taught. To some degree, you either have it or you don’t. What is passion? It’s the ability to sell the lyrical content of the song through performance. It’s the ability to make the listener believe in what you’re singing and feel that you’re talking directly to
them and not anyone else. And passion can sometimes trump pitch and pocket. A mediocre singer who can convey his emotion through his voice is way more interesting to listen to than a polished singer who hits every note perfectly but with little emotion. In fact, just about any vocalist you’d consider a “star” has passion, and that’s why he or she is a star.

On stage, passion can sometimes take a backseat to stamina, since you have to save yourself for a whole show and you can’t blow it all out in one song. That’s why many singers have only one or two big “production numbers,” when they totally whip it out. But in the studio, there’s never any cruising. You’ve got to give all the passion you can give to every song. A few paragraphs ago I said that you either have passion or you don’t, but sometimes a singer has it but doesn’t know it, and it’s the job of the producer to pull passion out of her. That could mean getting the singer angry to stir some emotion, building her up by telling her how good she is, or making her laugh to loosen her up. Anything to sell the song! But once she knows how to summon it up from inside herself, she can do it again and again.

The 3 P’s of Vocals

Staying in pitch means singing in tune and reliably following the melody.

Pocket means singing in time and in the groove.

Passion is the ability to sell the lyrical content and melody through performance.
Background Vocals Need Attention, Too

It’s too easy to take background vocals lightly and say “Just throw a background part on this” or “Hey, can you sing a little background here?” But background vocal parts are so important that they can make the difference between a record sounding polished or sounding as though it just came out of the garage. Background vocals are integral parts of the song that require the same amount of attention as the drum, bass, guitar, keys, and lead vocals get. In fact, a bad background vocal part can easily sink a recording that otherwise sounds great.

You can’t have someone sing background just because they’re used to doing it live. If it’s a part worth doing, then it’s a part that must stand on its own. It either sounds great or you can’t let it get by.
Unless you’re hiring in a vocal group whose members sing with each other all the time or the lead singer is doing them all herself, it usually takes more time to get a blend on harmony vocals than you might think, especially if the group is composed of singers who haven’t sung together before. Regardless of the amount of time they’ve spent together, here are some tricks to make those harmony vocals sound as tight as possible.

Phrasing Is Everything

Singing together means that you really have to sing together—exactly. Each vocalist has to sing exactly the same way as the other singers, complete with the same inflections, slurs, attacks (starts), and releases (stops). Usually this means that one vocal part will be the reference part, and all others will follow. The way that I’ve seen great background singers work is for one to say, “Sing it to me. Show me what you’re doing,” then the others would try to match that exactly. It works for them, and it will work for you, too.

Attacks and Releases

Whether you’re playing it or singing it, attacks and releases are the secret to tight music. While it’s usually easy to get the attack part (where everyone starts at exactly the same time), the release part (everyone ending at the same time) is often overlooked. The releases are just as important as the attacks, and polishing up this one area will make a vocal group sound so tight you won’t believe it. So remember, everyone starts and stops at the same time. A great example of a background vocal with a tight release is the end of the theme song for the television show *American Dad*. Listen to how tight “Good Morning USA” is, especially the end of the phrase. That’s what you’re going for.

Gang Vocals

Gang vocals are background vocals in which the vocalists sing the same thing that the lead singer sings, and in unison. This usually happens in the chorus. An example can be heard in Kiss’s classic
hit “Rock and Roll All Night.” It’s not uncommon for a band to get some of its members who don’t usually sing to sing for a gang vocal. You might think that singing a gang vocal would be easy because you don’t have to worry about a harmony, but that can be a big mistake, because you still have to be concerned about pitch and phrasing, just like with harmony vocals. Don’t make that mistake; when working on vocals, place the same importance on all parts. Every single part needs the same attention as the lead vocal. Remember, if it doesn’t sound great, work on it until it does, try something else, or eliminate it.

**Background Vocals**

Background vocals are just as important as any other part and require the same attention.

For harmony vocals to blend well, exact phrasing is everything.

Gang vocals that sing in unison with the lead vocal require the same attention.
Most often engineers are congenial professionals who manage to combine artistry and technicality at the same time. It’s important to have a meeting with the engineer prior to the first session to discuss the parameters of the project so you each know what to expect from one another. It’s best to let the engineer do the job he’s hired to do, but don’t be afraid to tell him what you need. Don’t be afraid to ask any technical questions, or even to ask for production opinions. You hired him for his expertise, so take advantage of it. Remember to be specific about what you need, and you and your engineer should easily make a great team. You’re both aiming for the same outcome, and rarely should there be any dissonance between the both of you if you’ve hired an experienced pro.

These are the things to look for in an engineer:

▶ **Credits and experience.** Credits don’t always tell you what you want to know, but it’s a start. An engineer can have a major credit on his resume even though he assisted on an editing session when the artist wasn’t there, so take those credits with a grain of salt unless you see the CD cover yourself. But experience in terms of time on the job is a pretty good indicator about the competence and attitude of an engineer. Most engineers don’t stay around too long if they’re difficult to get along with or are short on talent.

▶ **Experience in the type of music you’re about to produce.** Sometimes this matters a lot and sometimes it doesn’t. If you are able to hire an engineer who has a lot of experience with the music you’re working on, then that’s the guy to get, all things being equal. But an engineer with a lot of experience and credits who doesn’t do much of the type of music you’re doing is usually a better choice than is a newbie who has a little experience with your music style.

▶ **Technical expertise.** Most engineers have a fair amount of technical expertise; it comes with the job. Where an engineer’s level of technical knowledge would be especially pivotal in your hiring decision might be if you’re planning on recording at 192 kHz or using magnetic tape or anything else that was out of the norm. Someone with that kind of specific experience will save you both time and money.

I know some major engineers with big-time hits under their belts who seem to work with a client only once. Their personalities are abrasive enough that they get passed over for the follow-up record, since their clients are generally unhappy with the experience. Save yourself that kind of grief. Talk to a number of engineers and get some references from both artists and other producers prior to hiring anyone.
Working with the Artist

The type of session where you usually find the artist present is on a record or a demo date. But there are many other music-production gigs where the person who is considered the “artist” is a slightly different entity. If it’s a jingle date, for instance, view the client or anyone from the ad agency in the same light as you view an artist-musician; if it’s a film or a TV date, the director, producer(s), music supervisor(s), studio execs, and any of their representatives can be considered akin to an artist.

It’s best to show a quiet, friendly respect to the artist at all times. While recording, you’re a valued asset to their creative and business process, and are usually considered at least a peer and at most a parental figure or teacher. During the time you’re involved in the sphere of activity with the record, you inhabit the artist’s musical, professional, and social universe as a cross between an honored guest and a partner in their musical enterprise.

Once an artist begins to trust you on a musical level, that trust may carry over onto a personal level as well. It’s easy to become a confidant as the intimate bond between you and the artist grows, but there may be danger in getting too close. It’s easy for personal issues to get in the way of the music, and while the producer has to deal with them, the focus can sometimes drift away from the music if the producer becomes too personally involved. Many producers are careful to set boundaries that allow them to stay focused on the job at hand, and become engaged in the artist’s private matters only if those things are having a negative impact on the music.

With respect to all the tangential interactions that may occur on a session, consider anyone associated with the artist (like a spouse, family member, boyfriend or girlfriend, guest, driver, personal assistant, or staffer) an “artist,” too. Treating them lightly can bring the scorn of the artist upon you!
An ever-important aspect of production is mixing, which can make or break a song. A brilliant mix can put an otherwise average production over the top, while a mediocre mix can bring down a brilliant production (although sometimes the song is so brilliant that nothing can detract from it).

If you’re not an engineer, the more you know about the process of mixing and how the mixing engineer thinks will definitely help you during the process. Even if you’re already an engineer and an experienced mixer, here are a few concepts that may help you visualize the final product a bit better.
The Mechanics of Mixing

Although most engineers ultimately rely on their intuition when doing a mix, there are certain mixing procedures that they all consciously or unconsciously follow.
Most mixers and many producers can hear some version of the final product in their head before they even begin to mix. Sometimes this is a result of countless rough mixes during the course of a project that gradually become polished if an engineer is mixing a project that he’s tracked. Even if an engineer is brought in specifically to mix, many won’t begin until they have an idea of where they’re going.

Engineers who can hear the finished product before they start normally all begin a mix the same way. They become familiar with the song by either listening to a previous rough mix or putting up all the faders (when using a console) and listening for a few passes. Sometimes, though, that’s harder than it seems. In the case of a complex mix with a lot of tracks, the mix engineer may have to spend some time muting sections of various tracks before the song begins to pare down and make sense.

For better or worse, the engineer’s vision will end up changing, thanks to input from the producer and the artist. Although it’s not unheard of for a major mixer to complete a job unattended by the producer or the artists, most mixers prefer to have the input. However, a vast majority of them prefer to start the mix by themselves and have the producer and the artist come by to offer suggestions five or six hours later, after the mix begins to take shape.
Most great mixers think in three dimensions. They think “tall, deep, and wide,” which means they make sure that all the frequencies from low to high are represented (tall), the mix has depth (deep), and it has stereo dimension as instruments are panned in the sound field (wide).

The “tall” dimension (the frequency range of the mix) is the result of knowing what sounds correct timbre-wise as a result of having a reference point. This knowledge, or reference point, can come from being an assistant engineer and listening to what other first engineers do, or it can come from comparing your mix to CDs, records, and files you’re familiar with and consider to be of high fidelity.

Essentially, you’re trying to make sure that all the frequencies are represented in the correct proportions. Usually that means that all of the sparkly, tinkly highs and fat, powerful lows are there. Sometimes some mids need to be cut, but whichever frequencies are adjusted, clarity is what you aim for. Again, having experience with instrumental and vocal elements that sound good really allows you to establish your own reference point.

The effects, or deep, dimension is achieved by introducing new ambience elements into the mix. This is done with reverb and delay (and offshoots like flanging and chorusing), but room mics, drum overheads, and even leakage play an equally big part.

The panning, or wide, dimension is placing a sound element in the stereo sound field in such a way as to make a more interesting soundscape, and, to a lesser degree, so that each element is heard more clearly. And that brings us to the nitty-gritty of mixing, in which we detail all the elements of a great mix even further.

Before we can talk about the elements that make a great mix, it’s good to be aware of the signs of a mix that’s not up to that standard. Does your mix have any of these characteristics?

**SEVEN CHARACTERISTICS OF AN AMATEUR MIX**

1. **No contrast.** This problem is a result of the same musical textures being used throughout the entire song. This is generally an arrangement issue, which the mixer can affect somewhat since mixing is so much more than balancing. It’s influencing the arrangement by what you mute, emphasize, or lower in the mix.

2. **A frequent lack of a focal point.** Sometimes during a song, there are holes between lyrical phrases in which nothing is brought forward in the mix to hold the listener’s attention. Granted, this is an arrangement issue, too. But it’s the job of a mixer to find some point of interest and emphasize it. Of course, the producer should catch this problem way before the project gets to the mixing stage.

3. **Mixes that are noisy.** Clicks, hums, extraneous noises, song count-offs, and sometimes lip smacks and breaths are all things that the listener will find distracting. It may be a pain to eliminate these distractions, but you’ve got to do it to take the mix to where it has to be.

4. **Mixes that lack clarity and punch.** With this problem, instruments aren’t distinct, and
low-end frequencies are either too weak or too big. This is really the number one indication of an amateur mix, especially in the low end: it’s either way too heavy or way too light. The way around this is to listen to other records that you think sound great and try to emulate the sound. Sure, it takes time, but doing so will get you in the ballpark.

5. **Mixes that sound distant and are devoid of any feeling of intimacy.** Sometimes a mix sounds distant because it has too much reverb or other effects have been overused. This is another common trait of an amateur mix, since a newbie mixer thinks the plug-in effects are so cool (because they are!) that they should be used on everything all the way through the song. You’d be surprised just how many effects are used in a great mix sometimes, but the use is so subtle that you can’t tell it’s there unless you have the original unaffected sound to compare it with. In an amateur mix, you hear all the effects screaming at you all the time. If you can make it sound great without effects first, you’ll automatically moderate their use.

6. **Inconsistent levels.** This involves instrument levels that vary from being balanced to being too soft or too loud, or lyrics that can’t be distinguished. Once again, a newbie mixer often sets the faders and forgets them, but mixing can be just as dynamic as the music. Every note of every solo and every word of the vocal must be heard. Even with console and parameter automation as sophisticated as it is these days, it still takes some time and a critical ear to be sure that everything is heard.

7. **Dull and uninteresting sounds.** This problem happens when generic, dated, or frequently heard sounds are used. There’s a difference between using something because it’s hip and new and using it because everyone else is using it. The latest example is the AutoTune keying trick initially used by Cher, then copied by ’N Sync, and most recently by Kanye West and others. They’ve already used it, so give it a rest. It doesn’t mean you’re cool if you use it; it just means you’re a copycat. The same goes for using generic synth patches from a Roland Motif (this problem goes all the way back to the ‘80s with the electric-piano sound of the Yamaha DX7). We’ve heard all those sounds a thousand times already. Time for something new. Most great artists and producers strive for something that no one has ever heard before.

Although some artists, producers, and mixers get lucky by flying through a mix, making and mixing records usually takes a lot of time and attention. We’d all like it to go faster, but there are some things that you just can’t let get by. Eliminate the seven characteristics of an amateur mix, and you’ll be surprised just how good your song can sound.
The Keys to a Great Mix

Although it’s always easier if you start with great tracks, solid arrangements, and spectacular playing, a great mix can take okay tracks and transform them into a song so compelling that people can’t get enough of it. It’s been done on some of your favorite all-time songs. So how can you get a mix to that point?

More than being just technically correct, a mix must be as interesting as a good movie. It must build to a climax while having points of tension and release that keep the listener subconsciously involved. Just as a film looks bigger than life, a great mix must sound bigger than real life. The passion and the emotion must be on a level that sucks the listeners in and forces them to focus on the sound.

Most great mixers, whether they know it or not (and many mixers aren’t conscious of how they do it), have a method in the way they approach a mix. Although the method can vary a little depending on the song, the artist, the genre, or even whether the mixer tracked the song from scratch or is just coming in for the mix, the technique remains constant.

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Find the direction of the song.

Develop the groove and build it like a house.

Find the most important element and emphasize it.

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The last point may be the most important with regard to creating an outstanding mix. As famed Latin mixer and multiple Grammy winner Benny Faconne so succinctly states: “It’s almost like a musician who picks up a guitar and tries to play. He may have the chart in front of him, but soon he has to go beyond the notes in order to get creative. Same thing with mixing. It’s not just a thing of setting levels any more, but more about trying to get the energy of the song across. Anybody can make the bass or the drums even out.”
The first thing that the mixer must do before delving head-first into the mix is to find the direction of the song, and that is determined by both the artist and the performances. For instance, if the song is folksy in nature, then it probably won’t need big, bombastic drums and long reverbs and delays. But if the artist is a loud arena rock band, then you probably won’t want a close, intimate sound.

Although it’s absolutely possible to change the direction of a song and have a hit, a song usually works best with one artist only one way. A good example of this is Marvin Gay’s “I Heard It Through the Grapevine,” a hit covered over a hundred times by everyone from the Kaiser Chiefs to Tina Turner to Amy Winehouse. If we consider only two of these covers, the direction of Creedence Clearwater is very different from the direction taken by Gladys Knight and the Pips, yet the song works equally well for both groups. Another example is Green Day’s version of Bob Dylan’s “Like a Rolling Stone.” Its direction is a function of the artist and the performance.
We talked about the groove of a song in chapter 6, and while the producer has to make sure that a song has a strong groove to begin with, the mixer has to identify the main instrument or instruments associated with the groove and make them stand out in the mix so the pulse of the song is strong. As stated in chapter 6, sometimes it isn’t the bass and drums that are the main instruments holding down the groove. It could be a percussion instrument like a shaker, a rhythm guitar part, or an arpeggiated synthesizer line. Regardless of what’s supplying the groove, the trick for the mixer is to find the instrument that defines the groove, and then build the rest of the mix around it.
Equally as meaningful, and in some cases even more important than finding the instrument responsible for the groove, is finding whatever element is the most important to the song. In some cases (like dance and rap music), the most important element is the groove. Yet in other genres (like country), it’s the vocal.

Even though the most important element in a song is often the lead vocal, it doesn’t necessarily have to be. It could be a riff from, say, The Rolling Stones’ “Satisfaction” or “Start Me Up,” or the Rick James loop from MC Hammer’s “U Can’t Touch This,” or the intro to Coldplay’s “Clocks.” It’s always a part so compelling that it forces you to listen to the song.

Whatever part is most important, the mixer must identify it and emphasize it in the mix in order for the mix to be elevated to beyond the ordinary. Like most other creative work that requires some divine inspiration for success, you can’t underestimate the importance of talent and experience.
The Master Mix

Gone are the days of manual mixing, when the hands of not only the engineer but also the producer and all of the band members manned a fader or a mute button or a pan control in order to get the perfect mix. Gone are the days of massive amounts of takes of your mix in order to get your “keeper.” Thanks to the digital workstation and the advanced state of console automation, the mix is (or should be) perfect before it gets committed to hard disk, optical disc, analog tape, solid-state memory, or any other format yet to be devised.

Regardless of the format used to deliver the music to the record label, the mastering facility, and, ultimately, the public, the mixing engineer must make several decisions right before and right after achieving a mix that lights up the speakers.
Since as far back as the ‘50s, mixers have strived to make their mixes hotter than those of their competitors. That’s because if two songs are played back-to-back, the louder one is sometimes perceived as sounding “better.” But the limitation on how loud a mix could be was previously determined by the type of delivery medium to the consumer the music was on. In the days of vinyl records, if a mix was too loud the stylus would vibrate so much that the record would skip. When mixing too hot to analog tape, the sound would begin to softly distort and the high frequencies would disappear (although many engineers and artists actually liked this effect). When digital audio and CDs came along, any attempt to mix beyond 0 dBfs would distort terribly as a result of digital “overs” (nobody likes this effect).

But over the years mixes have become hotter and hotter in perceived level, mostly because of new digital technology that has resulted in better and better limiters. Today’s digital “look ahead” limiters make it easy to set a maximum level for the mix (usually at—.1 or—.2dBfs) and never worry about digital overs or distortion again.

That being said, raising the competitive level (the mix level that’s as loud as your competitor’s mix) used to be left to the mastering engineer. The mix engineer would hand off a mix that was acceptable and the level would get raised from there, regardless of whether the ultimate delivery medium to the consumer was a record, a cassette, a CD, or a DVD. Part of the voodoo of the mastering engineer was his ability to make your mix louder than you could.

But that doesn’t cut it these days. Artists and A&R people want the mix to not only immediately sound “like a record” but also to be as loud as anything commercially released from the first rough mix onward. This is one of the reasons that the famous mix bus compressor on every analog SSL console became so popular. It was built like a typical mastering compressor to give your mix that “radio” sound as soon as you inserted it into the signal path.

Today, with many powerful plug-in compressor/limiters available, it’s all too easy to raise the level of your mix as loud as it will go, but just because you can do it doesn’t mean you should. Raising the level too much results in a condition called hypercompression (see chapter 13 for an in-depth explanation), which can rob the song of any life, cause listener fatigue, and not give the mastering engineer much to work with. Best to leave any major mix compression to the mastering engineer.
Mixing with Mastering in Mind

Whether you master your final mixes yourself or take them to a mastering engineer, things will go a lot faster if you prepare for mastering ahead of time. Nothing is so exasperating to all involved as not knowing which mix is the correct one or forgetting the file name, which preparation will help you avoid. Here are some tips to get you “mastering ready.”

THINGS TO REMEMBER BEFORE MASTERING

► **Don’t over-EQ when mixing.** Better to be a bit dull and let your mastering engineer brighten things up. In general, mastering engineers can do a better job for you if your mix is on the dull side rather than too bright or too big.

► **Don’t overcompress when mixing.** You might as well not even master if you’ve squashed it too much already. If your mix is hypercompressed, that will deprive the mastering engineer of one of his or her major abilities to help your project. Squash it for your friends. Squash it for your clients. But leave some dynamics for your mastering engineer. In general, it’s best to compress and control levels more on an individual-track basis and not as much on the stereo bus.

► **Getting the levels of different songs to match is not important.** Just make your mixes sound great. Matching levels between songs is one of the reasons you master your mixes.

► **Having hot levels is not important.** You still have plenty of headroom even if you print your mix peaks at -10 dB or so. Leave it to the mastering engineer to get you the hot levels. That’s another reason you go there.

► **Watch your fades.** If you trim the heads and tails of your track too tightly, you might discover that you’ve trimmed a reverb trail or an essential attack or breath. Leave a little room and let the mastering engineer perfect it.

► **Document everything.** You’ll make it easier on yourself and your mastering person if everything is well documented, and you’ll save yourself some money, too. The documentation should include any flaws, digital errors, distortion, bad edits, fades, shipping instructions, and record company identification numbers. If your songs reside on hard disk as files, make sure that each file is properly identified for easy recognition (especially if you won’t be at the mastering session).

► **Especially don’t be afraid to make a note of any glitches, channel imbalances, or distortion.** The mastering engineer won’t think less of you if something got away (that happens to everybody at one time or another), and it’s a whole lot easier than wasting a billable hour trying to track down an equipment problem when the problem is actually on the mix master itself.

► **Alternate mixes can be your friends.** A vocal up, a vocal down, or an instrument-only mix can be a lifesaver when mastering. Things that aren’t apparent while mixing sometimes jump right out under the microscope of mastering, and having an alternative mix around can sometimes provide a quick fix and keep you from having to remix. Make sure you document any alternative mixes properly, though.
Check your phase when mixing. It can be a real shock if you get to the mastering studio and the engineer begins to check for mono compatibility, and then the lead singer or guitar disappears because something in the track is out of phase. Even though this was more of a problem in the days of vinyl and AM radio, it’s still an important point to make now since many so-called stereo sources (such as television) are either pseudo-stereo or are stereo only some of the time. Check it and fix it before you get there.
Mixing in the Box

Where once upon a time it was assumed that any mix was centered around a mixing console, that’s no longer entirely true. Since DAWs have become so central to everyday recording, a new way of mixing has come about: mixing in the computer without the help of a console—or mixing “in the box” (ITB).

Many old-school mixers who grew up using consoles dislike mixing in the box because either they find it’s hard to mix with a mouse or they don’t like the sound. While it’s true that the early workstations (or rather their A/D/A converters) didn’t sound very good, that’s no longer the case. Indeed, even the least expensive converters have come a long way, so that’s not the issue it once was. Another objection has been that the sound of the internal-mix bus of a DAW degrades the signal, and once again that isn’t quite the case. It’s true that each DAW application uses a different algorithm for summing, which makes the sound of a particular software application vary from a little to a lot, but a bigger issue is the same one that mixers in the analog world have faced almost from the beginning: it’s how you drive it that counts!

Suffice it to say that whether mixing in the box or with a traditional console, the principles are the same. Although you or your engineer may have a preference for one or the other, you can expect to get a similar quality from either mixing method.
Most mixing engineers excel at working on a certain type of music. Some work better in R&B, some are great at rock, while still others shine at acoustic music. While music is music to some degree and most mixers can manage to achieve a reasonable mix in a genre they’re not used to, it’s important to match the correct mixer with the type of music you’re doing.

For instance, an engineer who is used to doing acoustic jazz will probably not be able to get the punch required for a rock record or the low end needed for an R&B track. Conversely, someone who mixes rap will probably be lost when confronted with an orchestral track.

That being said, some of the finer mixers just have that special touch that lifts a track up beyond what you thought it could be, and that’s why they get paid the big bucks to mix.
Mixers are all over the board price-wise, especially in the current depressed music market. At one time there was a mixer (who shall remain nameless) who was charging as much as $10,000 per mix, plus a point to mix just one song. Even more outrageous was the fact that he’d do as many as three mixes a day, since his setting for each instrument never changed because it was his “sound.” Very few budgets can support that kind of excess anymore, and mixer’s prices, although still at a premium, have come down in recent years.

While some mixers charge by the song, others charge a daily rate, and so the price can escalate quickly if there are fixes or the mix goes longer than expected. The rates might be as low as $500 a day, and can run up to $2,500 or more (although most rates are somewhere in the middle these days). These rates do not include the studio costs, which are separate from the mixer’s rate. That means mixing could theoretically cost as much as $5,000 a day with the mixer included.

Because budgets are so small these days compared to what they once were, mixing specialists have been caught in a dilemma—the client (you, the producer) can afford only the studio or the mixer, but not both. As a result, many mixers have resorted to creating their own mixing environment and giving an all-in price that makes the process much more affordable for the producer. This is one of the advantages of the digital age and DAWs: it was impossible to build and equip a suitable mixing room for less than a half-million dollars in the analog days.

Since the music business is weak at the moment and budgets are way down, present an offer to your mixer. If you’re willing to wait for when the mixer can fit you in during his or her down time, or if you agree to let him mix alone without you or the artist attending, you might be surprised at the rate you can get. Even if the price you offer is below his rate, chances are he can work something out with you that will get you a great mix for a price you can afford.
How Long Should Mixing Take?

As stated in chapter 3, it used to be standard to figure that a mix would take anywhere from a day to a day and a half per song, especially if you used an A-list mixing engineer. The first day was to get the mix about 95 percent of the way finished, and the second half day was to try to get those last 5 percent with a fresh set of ears.

Of course, the time it takes to mix something depends on the song, the type of material, the way it was recorded, and the style of the mixer. If, for instance, the recording were a live concert given by a three-piece band and a vocal, with all the songs sounding pretty much the same, an entire album might take only a day to mix if there are no fixes or complications. An R&B song with 100 tracks, however, could take a few days just to get a handle on. And a song that has poorly recorded tracks and needs a lot of editing and fixing to bring it up to snuff might take even longer than that. On the other hand, producer/engineer Kevin Shirley has been known to mix entire albums in a single day, such as the best-selling Journey records he worked on in the ‘80s. Of course, he was mixing each song as he went along during the project instead of doing rough mixes. The final mix amounted to making only minor tweaks.

Regardless of how long the initial mix took in the analog days, tweaks or changes after the fact were once dreaded by all involved because resetting the console and all the outboard gear (see Fig. 12.1) usually resulted in a mix that sounded slightly different (not to mention how long it took to set up the equipment). As a result, producers and mixers did everything they could to avoid any redos, which mostly consisted of spending extra time on the mix to be sure it sounded right, making multiple versions of the mix (more on this in a bit), and doing just about anything to assure that the finished version was in their hands when they walked out of the studio door. Now that people can mix “in-the-box” in a DAW, it’s easy to bring a mix back from exactly where you left it—days, weeks, months, or even years before—thus making fixes fast and easy. As a result, this has taken some of the pressure out of the mixing process, unless you’re still mixing in the analog world with a console and outboard gear. In that case, it hasn’t really changed much at all.

In the end, it’s best to figure at least a day per song regardless of whether you’re mixing in the box or on an analog console. Consider yourself lucky if it goes any faster.
Fig. 12.1: Reconnecting the patch bay: one of the reasons that analog remixing is unpopular.
Alternative Mixes

It’s now standard operating procedure to do multiple mixes in the hopes of avoiding having to redo the mix later because an element was mixed too loudly or softly. Even with today’s ease of calling up a digital project in a DAW, a producer does not want to revisit a completed project if at all possible. This means any element that might be questioned later (such as lead vocal, a solo instrument, background vocals, and any other major part) is mixed with that track recorded slightly louder and again slightly softer. These mixes are referred to as the up mix and the down mix. Usually these increments are very small—½ dB to 1 dB—but usually not much more.

With multiple mixes it’s also possible to correct an otherwise perfect mix later by editing in a masked word or a chorus with louder background vocals. Many times an instrumental mix is used to splice out objectionable language (see chapter 13).

Although many record companies may ask for more or different versions, here’s a typical version list of a rock artist’s mix. Other types of music will have a similar version list that’s appropriate for the genre:

1. album version
2. album version with vocals up
3. contemporary-hits radio mix—softer guitars
4. album-oriented radio mix—more guitars and more drums
5. adult contemporary mix—minimum guitars, maximum keyboards, and orchestration
6. TV mix (the mix minus the lead vocal)

You or the artist or A&R person may also want additional versions, such as a pass without delays on the vocals in the chorus, a pass with more guitars in the vamp, or a version with the bass guitar up. There is also a good chance that any singles will also need a shortened radio edit if you’re working with a hit artist.

Thanks to the virtues of the digital audio workstation and modern console automation, many engineers leave the creation of the up and down mixes to their assistants, since most of the hard work is already complete.

The Mix

All good mixers mix tall, deep, and wide.

Find the most important element and emphasize it.

Mix with mastering in mind.
Leave plenty of time to mix.

Plan for multiple mix versions.
CHAPTER 13

Mastering: The Finishin Touch

Mastering is one of the most misunderstood operations in production, but also one of the most important. While it might be tempting to consider not mastering a project, a good mastering job can make even a great production sound even better. Let’s take a look at what mastering is and what a producer has to know about it.
What Is Mastering?

Technically speaking, mastering is the step between taking the audio fresh from mixing and preparing it to be replicated or distributed. But it is really much more than that.

Mastering is the process of turning a collection of songs into a record and making them sound like they belong together by unifying their tone, volume, and timing (spacing between songs).

Mastering isn’t a set of tools or a device that music runs through and automatically comes out mastered (despite what the adverts for these types of devices say). It’s an art form that, when done well, relies on an individual’s skill, experience with various genres of music, and good taste.
Mastering should be considered the final step in the creative process, because it is your last chance to polish and fix your project—at least, that is the case in the United States. In Europe mastering is viewed as the first stage of the manufacturing process, and that’s because it’s the stage when the digital bits get transferred to either a mechanical medium (such as vinyl) or another electronic medium better suited for mass production (like CDs). Both of these views are accurate, but it’s a shame to overlook the creative aspect involved in mastering. The issue has become a moot point anyway, with many music releases now completely bypassing CDs and other legacy mediums.

A project that has been mastered, especially at a top-flight mastering house, simply sounds better. It sounds complete, polished, and finished. The project that might have sounded like a demo before now sounds like a “record.” This is because the mastering engineer has added judicious amounts of EQ and compression to make the project bigger, fatter, richer, and louder. He or she has matched the levels of each song so they all have the same apparent level. He’s fixed the fades so that they’re smooth. He’s edited out bad parts so skillfully that you don’t even notice them. He’s made all the songs blend together into a cohesive unit. In the case of mastering for CD, he’s inserted the spreads (the time between each song) so the songs flow seamlessly together. He’s sequenced the songs so that they fall in the correct order. He’s proofed your master before it’s sent to the replicator to make sure it’s free of any glitches or noise. He’s also made and stored a backup clone in case anything should happen to your cherished master, and he’s taken care of all the shipping to the desired duplication facility if you’re using one. And all this happens so quickly and smoothly that you hardly know it is going on.
Many reasons contribute to why a commercial mastering facility usually produces a product that’s better than one mastered at home. First of all, the mastering house is better equipped. It has things available that you probably won’t find in a simple home- or small-studio DAW room, such as high-end A/D and D/A converters, ultrasmooth outboard compressors and equalizers, a suite of powerful plug-ins, and an exceptional monitoring system.

The monitoring system of these facilities sometimes costs far more than many entire high-end home studios. Cost here isn’t the point but quality is, since you can rarely hear what you need to hear on the commonly used near-field monitors that most home and small recording studios use to make their adjustments. The vast majority of monitors, and the rooms they are in, just aren’t precise enough.

Fig. 13.1: A professional mastering studio
But the mastering engineer is the real key to the process. That is all he does day in and day out. He has “big ears” because he masters for at least eight hours every day and knows his monitors the way you know your favorite pair of sneakers. And his reference point for what constitutes a good-sounding mix is finely honed, thanks to working hours and hours on the best- and worst-sounding mixes of each genre of music.

Finally, if mastering were easy, don’t you think that all the big-time engineers and producers (and record companies, for that matter) would do it themselves? They don’t, and mastering houses are busier than ever, which tells you something.

While all of the above may seem as though I’m trying to discourage you from doing your own mastering or from finding a place that’s inexpensive, that’s really not the case. In fact, I’m trying give you a reference point that shows how the pros operate and why they are so successful. From there you can determine whether you’re better served by doing it yourself or by using a pro.
All mastering engineers have their own style and their own sound. Some specialize in R&B, some excel at dance music, some are known for their low end, and some are known because they can cut songs louder than anyone else. That being said, most have experience in all types of music and can do a good job regardless of the genre.

It’s not uncommon for a producer with a track record and a top-flight artist to ask for a “shoot-out” between mastering engineers to see which one can do the best job on a particular project. That means the producer will ship the same mix to different mastering engineers to see who does the best job. The winner gets the mastering job for the album.

Mastering engineers intensely dislike this practice and will do it very reluctantly (since they only get paid if they win the shoot-out) only for high-end clients. Even if you have such a project, you’ll have a much happier engineer if you don’t ask him to prove himself. You’ll also get a better job if you develop a relationship with your engineer. Treat your mastering engineer well today, because he could be saving your next project tomorrow.
Sometimes a mixer will send a rough mix to a mastering engineer for an opinion on how it sounds. Many times that simple procedure can save a lot of time and money, since the mastering engineer can tell the mixer where he might be off. Sometimes the mastering engineer might say something like, “The midrange is a dB or two hot, but otherwise it’s okay” or “You’re plus 12 at 60 Hz! You’ve really got to check the level of your subwoofer.” Either way, it’s great to have a working relationship with a mastering engineer so you can work with him in this way.

**Mastering**

Mastering is the final step in the creative process.

A well-mastered project sounds complete and polished.

A pro mastering studio’s equipment and acoustics allow you to hear things that couldn’t be heard during the mix.

A pro mastering engineer’s experience makes him invaluable.

Get the mastering engineer’s opinion on the mix before arriving for the session.
How Long Should Mastering Take?

Mastering done by a pro usually moves at a rate of two or three songs per hour, although it can take longer if you have a song that requires a lot of fixes or edits or you have trouble finding or choosing a mix. Most mastering jobs are finished within five hours, and few rarely go beyond a full day (although a hit artist might have a song mastered several times in the event of fixes or a picky producer or A&R person).

Sometimes a mastering engineer will reject a mix, saying that it’s so far off that it’s better to remix. This ultimately saves money, since it’s easier than asking the mastering engineer to try to resurrect a bad mix that will end up being an inferior product anyway.

When booking studio time, be sure to tell the studio manager about any deadlines you might have, the sampling rate and format to be used (for example, a 48 kHz, 24-bit AIFF file), and format that the project is stored on (hard drive, DVD, and so on). The more information the studio has beforehand, the less time the project will take, which means the less money you’ll spend.
Mastering prices at pro facilities vary wildly but are, for the most part, broken down into three areas: EQ time, production time, and the cost of the master.

EQ time is the creative time spent by the mastering engineer to EQ and compress your tracks. The price in a major facility can run from about $250 to $750 per hour (see why it’s so important to come prepared?). The price in a small indie mastering facility might be only $50 per hour, but you get what you pay for, since you’re paying for the mastering engineer’s ears and experience.

Production time is the time that the mastering engineer or assistant spends doing the actual sequencing for vinyl or CD, making the master for the replicator and online distributor, and making any reference files or CDs for the producer and the artist. The price for production time is usually about half the cost of the EQ time.

The master, or the final product that gets sent off to a replicator to make CDs, costs from between $250 and $1,000. These days, the master is a file that contains the audio, the spread information (the timing between the songs), and the IRSC codes (which digitally identify the song, artist, record label and release), and it is delivered to the replicator either by FTP, CD, or even Exabyte tape. Don’t make the mistake of playing the master if it’s on a CD-R since even the slightest smudge on the disc can cause a problem during replication. Some facilities offer a package that includes the CD master, an online master, and reference copies—all at one price.

All told, a full mastering job at a top-notch facility for a ten-song record can cost as little as $1,500 or as much as $5,000 (or more).
Preparation for Mastering

The mastering process will go a lot faster and smoother if you prepare for it ahead of time. Nothing is so exasperating for all involved as your not knowing which mix is the correct one, or your forgetting the file name. Here are some tips to get you “mastering ready.”

THINGS TO REMEMBER BEFORE MASTERING

► Make sure to bring mixes with the highest resolution possible. Lossy formats like MP3s, Windows Media, Real Audio, and AAC won’t cut it, and will give you an inferior product in the end. Bring the highest-resolution WAV or AIFF mixes you can, and make the other formats for online distribution later from the mastered project.

► Go to the session if at all possible. Most producers and engineers will go to the first few sessions of a new mastering engineer to see if he has the same musical and technical sensibilities. After that, a bond of trust develops, and they will simply send the master mixes, along with any instructions as to their preferences, to the mastering engineer. That being said, you should go to all of the mastering sessions if possible, because things will always sound a bit different (and probably better) than the way it sounded during mixing. Attending the session also allows you to make some final creative decisions that only you could add (“The kick is a little loud; see if you can deemphasize it a bit,” or “Let’s squash the whole mix a little more to make this tune punchier”).

► Come prepared. Make sure that all documentation, shipping instructions, and sequencing is complete before you get to the session. Sequencing (the order that the tunes appear on the CD or vinyl record) is especially important, and checking that the order is correct beforehand will save you some money in mastering time. Many producers have the mistaken impression that once the final mix is finished, it’s off to the mastering studio. But there should be one additional session known as the sequencing session, in which you take a day and do any editing that is required (cheaper to do it here than during mastering) and listen to the various song order possibilities. This is really important if you will be releasing in multiple formats such as CD and vinyl (yes, there are still some diehards) or in different countries or territories (since they will probably require a different song order due to having two sides on the record).

► Have your songs timed out. This step is important because you want to make sure that your project can easily fit on a CD, if that’s your release format. Most CDs have a total time of just less than 80 minutes (78:33 to be exact), although it is possible to get an extended-time CD (be careful, you might have replication problems). Obviously the available time decreases if you choose to include additional files on the ROM section of the disc.

► Vinyl records may be around for a while (but in limited quantities), so the following will apply if you intend to cut vinyl. Cumulative time is important because, due to the physical limitations of the disc, the mastering engineer must know the total time per side before he starts cutting. You are limited to a maximum of about 25 minutes per side if
you want the record to be nice and loud.

Since you can have only 25 minutes or less on a side, it’s important to know the sequence before you get to the mastering session. Cutting vinyl is a one-shot deal, with none of the undo functions that a workstation has. It’ll cost you money every time you change your mind.
As I stated in chapter 12, the volume/level wars began way back in the vinyl era of the ‘50s, when it was discovered that if a record played louder than the others on the radio, the listeners would perceive it to be “better” sounding and would therefore be a hit. Since then it has been the charge of the mastering engineer to make any song intended for radio as loud as possible in any way they can.

That also applies to situations other than the radio. Take, for instance, the iPod, the CD changer, and, in the very old days, the record jukebox. Most artists, producers, and labels certainly don’t want one of their releases to play softer than their competitors’, and that’s because of the perception (and not necessarily the truth) that it won’t sound as good if it isn’t as loud.

But as I said in chapter 12, the limitation of how loud a “record” (we’ll use this word generically) can sound is determined by the delivery medium to the consumer. If the mix on a vinyl record is too loud, the stylus can vibrate so much that it will lift out of the grooves and the record will skip. With digital audio and CDs, any attempt to mix beyond 0 dBfs results in terrible distortion.

So trying to squeeze every ounce of level out of the track is a lot harder than it seems, and that’s where the art of mastering comes in.
HYPERCOMPRESS...DON’T GO THERE!

That being said, over the years it’s become easier to make a record that’s hotter in perceived level, mostly because of new digital technology that has resulted in better limiters. Today’s digital “lookahead” limiters make it easy to set a maximum level (usually at—.1 or—.2 dBfs) and never worry about digital overs and distortion again, but this usually comes at a great cost in audio quality.

Too much bus compression or overlimiting when either mixing or mastering results in what’s become known as hypercompression. Hypercompression should be avoided at all costs because of the following:

► It can suck the life out of a song, making it weaker sounding instead of punchier.
► Lossy codecs like MP3 have a hard time encoding hypercompressed material, inserting unwanted side effects as a result.
► It’s known to cause listener fatigue, so the consumer won’t listen to your record as long or as many times.
► A hypercompressed track can sound even worse over the radio because of the behavior of broadcast processors at the station.

A hypercompressed track has no dynamics, leaving it loud but lifeless and unexciting. On a DAW, it’s seen as a constant waveform that fills up the DAW region. Here’s how the levels of a typical 1985 rock song have changed on recordings over the years as it has made its way to hypercompression on its subsequent rereleases.
This practice has come under fire lately, since we’ve just about hit the loudness limit thanks to the digital environment where audio now dwells. Still, both mixing and mastering engineers try to cram more and more level onto the disc, only to find that they end up with either a distorted or overcompressed product (go back and listen to Metallica’s 2008 CD release of *Death Magnetic* for a most egregious example). While this might be the sound that the producer and artist were looking for, it does violate the mastering engineer’s unwritten code of keeping things as natural sounding and unaltered as possible while performing his level magic.

But getting the most level onto the disc or file is not the only level adjustment that the mastering engineer must practice. Just as important is the fact that every song on the disc must be perceived to
be just as loud as the next. “Perceived” is the key word, since this is something that can’t be directly measured and must be done by ear.
Should You Use a Pro, or Should You Master at Home?

The temptation may be great to do your own mastering instead of using a pro, especially when money is tight. If an online release is all that’s in the artist’s game plan, there may be even more pressure to save the money.

While it’s very possible to master the project yourself (meaning that you have your engineer do it), that increases the chances for the project to come out a lot worse instead of better. Today’s mastering tools (like IK Multimedia’s T-Racks, for instance) are extremely powerful, and can cause a lot of harm in the wrong hands.

If you do decide to master yourself, here are a few tips to keep you out of trouble:

### Hypercompression

Is caused by too much bus compression or overlimiting during mixing or mastering

Makes the song sound weaker instead of punchier

Causes listener fatigue

### SELF-MASTERING TIPS

- **Listen to other songs that you like before you even touch an EQ parameter.** The more songs you listen to, the better. You need a reference point to compare your work with, and listening to other songs will prevent you from over-EQ’ing. EQ’ing is usually the stage when engineers who are mastering their own mixes get in trouble. There’s a tendency to overcompensate with the EQ, adding huge amounts (usually of bottom end) that wreck the frequency balance of the song completely.

- **A little goes a long way.** If you feel that you need to add more than 2 or 3 dB, you’re better off remixing! That’s what the pros do. It’s not uncommon at all for a pro mastering engineer to call up a mixer, tell him where he’s off, and ask him to do it again.

- **Be careful not to overcompress or overlimit your song.** This can lead to hypercompression. Instead of making a song louder, hypercompression sucks all the dynamics out of it, making it lifeless and fatiguing to listen to.

- **Constantly compare your mastering job to other songs that you like the sound of.** Doing this is one of the best ways to help you hear whether and how you’re getting off track.

- **Concentrate on making all the songs sound the same in relative level and tone.** This is one of the key operations in mastering. The idea is to get them to all sound as though they’re at the same volume. It’s pretty common for mixes to sound different from song to song.
song even if they’re done by the same engineer with the same gear. But it’s your job to make the listener think that the songs were all done on the same day in the same way. They’ve got to sound as close to each other in volume as you can get them, or at least close enough so as not to stand out.

► **Finish the songs.** Edit out count-offs and glitches, fix fades, and create spreads for CDs and vinyl records.
Different formats require slightly different mastering techniques. What works for a CD probably won’t work for vinyl (it will probably be too loud and the stylus will jump out of the grooves) and may not work well for MP3s, either.

Encoding an MP3 of your mix may seem easy, but to make it sound great requires a bit of thought, some knowledge, and some experimentation. The idea is to encode the smallest file with the highest quality, which is, of course, the tricky part. Here are some tips to get you started in the right direction so that you won’t have to try every possible parameter combination. Remember, though, the settings that might work on one particular song or type of music might not work on another.
Using lossy coding such as MP3 (which actually throws away some of the digital data to make the file smaller) makes the quality of the master mix even more of an issue, because high-quality audio will be damaged much less than low-quality audio will by this type of encoding. Therefore, it’s vital that you start with the best audio quality (the highest sampling rate and most bits) possible. That means it’s better to start with the 24-bit mix master or make the MP3 while you’re exporting your mix than to use something like a 16-bit CD master as the source for your MP3 encodes.

It’s also important to listen to your encode and perhaps even try a number of different parameter settings before settling on the final product. Listen to the encode, do an A/B comparison with the original, and make any additional changes you feel necessary. Sometimes a big, thick wall of sound encodes terribly and you need to ease back on the compression and limiting of the source-track master. Other times, heavy compression can make it through the encoder better than with a mix that has more dynamics. There are a few predictions one can make after doing it for a while, but you can never be certain, so listening and adjusting is the only sure way.

Here are some things to consider if your mix is intended for MP3 encoding:

**MP3 ENCODING TIPS**

- Start with the highest-quality audio file possible.
- Filter out the top end at whatever frequency works best (judge by ear). MP3 has the most difficulty with high frequencies, and cutting them out liberates a lot of processing for encoding the lower and mid frequencies. You trade some top end for better quality in the rest of the spectrum.
- A busy mix can lose punch after encoding. Sparse mixes, like acoustic jazz trios, seem to retain more of the original audio punch.
- Don’t totally squash your mix with a compressor/limiter. Leave some dynamic range so that the encoding algorithm has something to look at.
- Use multiband compression or other dynamic spectral effects very sparingly. They just confuse the encoding algorithm.
- Set your encoder for maximum quality, which will allow it to process for best results. The encoding time is negligible anyway.
- Remember, MP3 encoding almost always makes the resulting material slightly hotter than the original material. Limit the output of the material intended for MP3 to—1.1 dB, instead of the commonly used—.1 or -.2 dB, so you don’t get digital overs.
iTunes uses the AAC (Advanced Audio Coding) format for its store. Contrary to popular belief, AAC isn’t a proprietary format owned by Apple. In fact, it’s part of the MP4 specification and generally delivers excellent-quality files that are about 30 percent smaller than a standard MP3 of the same data rate. All new music destined for the iTunes Store must be encoded at a constant bit rate of 256 kbps with a 44.1 kHz sampling rate. The iTunes Store stopped selling 128 kbps songs in April of 2008.
CHAPTER 14

Production Checklists

Here are a number of checklists that cover most situations you will encounter during the production process. Remember that each project is different and that the outcome ultimately depends on the players, the instruments, the recording environment, the songs, the arrangements, and the budget. Of course, sometimes things are just out of your control. Also, these are not hard-and-fast rules; they just represent a starting place. If you try something that’s different from what you read below and it works, then it’s good thing! Remember—take risks, experiment, take notes on what works for you and what doesn’t, be creative, and most of all, have fun!
1. Who’s paying? Is it a record label, the artist or band, or an investor?

2. How are you getting paid? Will you be paid per song, on spec, by the hour, or with a flat fee for the project?

3. What’s your compensation? Do you get some money up front (an advance)? Do you get a percentage of sales? Do you get a combination? If so, how many points?

4. Do you get paid from the sale of the first unit onward? Or will you be paid after the advance is recouped?

5. Do you get an advance? How much is it? Does it come out of the recording budget? Can you get at least half up front?

6. Will you be paid for something other than music sales? Since sales are pretty low these days, can you get a piece of merchandise or publishing?
1. How many songs will be recorded? The more songs that are recorded, the higher the budget required.
2. What kind of sound are you looking for? This will determine the studio, the engineer, the players, and the rentals—all of which will impact the budget.
3. What kind of studio is the artist comfortable in? Some artists prefer new, high-tech studios, while others like something old and funky. Either way, the decision impacts your budget.
4. Does the budget include my fee? A budget could shrink noticeably if your fee is included.
5. Are the manufacturing costs included in the budget? A budget could shrink noticeably if CD or vinyl manufacturing costs are included.
6. Are the mastering costs included in the budget? Once again, a budget could shrink noticeably if the mastering costs are not accounted for in the budget.
7. On what format will the final product be released? The choice may impact your mastering costs.
8. On what format will you be recording? This choice will determine if you require any additional rental gear or hired-in expertise.
9. Are you sure you don’t have a budget in mind? A band, artist, or investor will usually know what they want to spend, but will be afraid to say it.
Preproduction
QUESTIONS FOR THE ARTIST OR BAND

1. What are some of your favorite records? Why?
2. What are your biggest influences? Why?
3. What recordings do you like the sound of?
4. What kind of sound are you looking for?
5. What is it that you like about the projects I’ve done?
1. Are the sections too long? Sections of a song that are too long cause the listener to rapidly lose interest.
2. Is there a clear distinction between sections? For instance, can you tell the difference between the verse and the chorus? Once again, listener interest wanes if a song goes too long without something new happening.
3. Does the song have a bridge? A bridge adds tension and release, keeping the interest high and enabling the song to build to a peak.
4. Does the song have a hook or an identifiable riff? A strong hook or riff develops listener interest.
5. Does the song have dynamics? Dynamics (places in the song that are more and less intense and/or loud or soft) develops listener interest.
6. Does the song have a tight arrangement? See the Song Arrangements checklist.
1. Have you limited the number of simultaneous elements to a maximum of four? More than four musical elements happening at the same time causes the listener to become confused and fatigued because they don’t know what to focus on.

2. Does each instrument have its own sonic space? Instruments that play in the same frequency or register will either bury one another or clash for attention.

3. Do the guitars sound different? In order for each guitar to stand out and make the recording sound bigger, they need to be in different registers, use different rhythms, play different lines, or have different sounds.
1. Rehearse in the round.
2. It’s the little things that count. (This includes dynamics, turnarounds, builds, attacks, and releases).
3. Stop when there’s a train wreck.
4. Work on the most difficult part first.
5. Start with the out chorus.
1. Who’s the engineer?
2. Is any rental gear required?
3. What’s the best time of day to record?
4. Are there any additional musicians required?
5. On which format and at what sampling rate will the project be recorded?
6. What’s the song recording order?
7. What studio or studios will you be using?
1. Does the location work for the artist? Is it too far or too close for the artist? Is it in an area where the artist will feel safe?
2. Does the studio have the right vibe? The longer you stay, the more important the vibe will be. Does it have a kitchen? Does it have a comfortable lounge? Is it clean?
3. Is the studio staff competent, helpful, and professional?
4. Will the deal for the studio fit within your budget? Is there a way to book the studio during off-times when it’s not as busy?
5. Is the studio the right size for the project? Do you need a larger control room? Do you need iso booths?
6. Are the acoustics right for the project? Is the studio too live? (You can often dampen it down.) Is it too dead?
7. Does the available recording gear meet the needs of the project? Does the console have enough inputs? Is there enough outboard gear? Are there enough mics? Can you get the sound you need? How many headphones mixes are there?
1. Do the drums sound great acoustically in the room? If they don’t, rent a new kit or hire a drum tuner.

2. Are the drums tuned properly? Before recording begins, the drums should have new heads put on and have all buzzes and sympathetic vibrations removed.

3. Do you have a variety of instruments available? The more types of instruments you have, the better the parts will fit together and the more interesting the recording will sound.

4. Are all the instruments in tip-top condition? Is the intonation set correctly? Is the instrument clean of any buzzes, hums, and intermittents?

5. Are all people involved happy with their headphone mix? Can you give each musician his or her own mix? Is a personal headphone mixer available for each player?

6. Does the click have the right sound? Does it cut through the mix? Is it musical enough that the drummer can play along? Is it so musical that the drummer can’t groove to it?

7. Does the click groove? Does it work better as quarter notes, or as eighth notes? Is there a different sound for the downbeat?

8. Is the click bleeding into the microphones? Can the drummer use isolating headphones? Can you roll the high end off so that it doesn’t leak as much?

9. Do you have the studio talkback mic on? Can you hear the musicians in the studio at all times between takes?

10. Is the control room talkback mic always on? Can the musicians hear you at all times in between takes?
Here are a number of questions to ask if the song just doesn’t sound as good as you think it can.

1. Do all the players in the band know their parts inside out? Is there a part that someone is unsure of?
2. Are all the players performing their parts the same way every time? (This assumes that you aren’t recording some form of jazz or blues in which you want a different performance for each take)? Any variation can lead to a section not gelling or not being tight.
3. Is the band playing dynamically? Does the music breath volume-wise? Does the verse have less intensity than the chorus or the bridge?
4. Does the band lose its drive when playing with less intensity? Do the band members forget about attacks and releases when they play more quietly?
5. Is everyone playing the song and section starts and stops the same way? If not, ask every player, “How are you playing it?”
6. Does the band sound tight? Are the attacks and releases of phrases being played the same way by everyone? Are the builds, turnarounds, and accents being played the same way by everyone? If not, ask every player, “How are you playing it?”
7. Is the band in tune? If not, make sure that everyone uses the same tuner and tunes the same way.
8. Does the song have a groove? Is the rhythm section playing in the pocket? Is the drummer or the bass player wavering slightly in tempo?
9. Is the tempo right for the song? Try playing the song a beat per minute or two faster or slower and see if that feels better.
10. Are all vocals in the best range for the singers? Does the vocalist have trouble hitting all the notes? Does he or she sound comfortable singing, and is the sound right for the song?
1. Do you have a list of overdub priorities? Do you know which overdubs absolutely must get done and which ones are less important? A list will keep you on track budget-wise and time-wise.

2. Can you record in the control room? Most players prefer to record in the control room because they like to hear what you’re hearing and they like the immediacy of the communication.

3. Are there too many people in the control room or studio? The fewer the people, the fewer the distractions. It’s best to keep all friends, associates, and hangers-on out of the studio when you’re working to keep the distractions to a minimum.

4. Did you move the vocal or the instrument into the big part of the studio? All instruments sound best when there’s space for the sound to develop, so move the vocal or the instrument into the big part of the studio for overdubs (after you’ve done any basic track fixes). You can cut down on any unwanted reflections from the room by placing baffles around the mic and player.

5. When doubling, are you trying to do something a little different on each track? Using a different mic, mic preamp, room, singer, or distance from the mic will all help to make the sound get bigger.

6. When doubling or adding more guitars, do you have a variety of instruments and amplifiers available? Two guitars (a Les Paul and a Strat, for instance) and two amplifiers (a Fender and a Marshall is the classic combination) combined with different pickup choices will allow a multitude of guitar tracks to live in the mix together more effectively.

7. Are you making it sound better, not just different? Changes aren’t always for the better. Is there a big difference between what you just recorded and the original part? Does the new part make everyone in the studio go crazy in a good way?

8. Would it be better to try recording the part tomorrow? You’d be surprised how much more you can accomplish when you’re fresh.

9. Do you have the studio talkback mic on? Can you hear the musicians in the studio at all times between takes? If they’re talking to you but you can’t hear them, they’ll feel isolated.

10. Do you always have the control room talkback mic on? Can the musicians hear you at all times in between takes? Periods of silence can be a mood killer.

11. Does a musician want to play his or her part again? If a player feels strongly about playing it over, he probably can do it better. Be sure to keep the last recorded part before recording again.
1. Would a handheld mic work better? Some singers aren’t comfortable unless they feel as though they’re on stage. Give them an SM58, and don’t worry about the sound. A great performance beats a great sound any day.

2. Is the headphone mix at the correct level? If the track is too loud, the vocalist may sing sharp or too hard. If the track is too soft, the singer may not sing aggressively enough.

3. Is the room ambience conducive to evoking a good vocal? Are the lights too bright? Does the singer feel claustrophobic?

4. Is the sound of the headphones conducive to producing a good vocal? A touch of reverb or delay in the headphones can help the singer feel more comfortable with the headphones mix.

5. Did you explain to the vocalist exactly what you need or where he or she was wrong? If the take wasn’t good for whatever reason, explain what was wrong in a kind and gentle way. Something like “That was really good, but I think you can do it even better. The pitch was a little sharp.”

6. Does the singer have the three Ps: pitch, pocket, and passion? A great vocal needs all three.

7. Do you have the studio talkback mic on? Can you hear the musicians in the studio at all times between takes?

8. Do you always have the control room talkback mic on? Can the musicians hear you at all times in between takes? Periods of silence can be a mood killer.
1. Does your mix have contrast? Does it build as the song goes along? Are different instruments, sounds, or lines added in different sections?

2. Does your mix have a focal point? Is the mix built around the instrument or vocal that’s the most important?

3. Does your mix sound noisy? Have you gotten rid of all count-offs, guitar-amp noises, bad edits, and breaths that stand out?

4. Does your mix lack clarity or punch? Can you distinguish every instrument? Does the rhythm section sound great by itself?

5. Does your mix sound distant? Try using less reverb and fewer effects.

6. Can you hear every lyric? Every word must be heard.

7. Can you hear every note being played? Automate to hear every note.

8. Are the sounds dull or uninteresting? Are you using generic synth patches or predictable guitar or keyboard sounds?

9. Does the song groove? Does it feel as good as your favorite song? Is the instrument that supplies the groove loud enough?

10. What’s the direction of the song? Should it be close and intimate, or big and loud?

11. Are you compressing too much? Does the mix feel squashed? Is it fatiguing to listen to? Is all the life gone?

12. Are you EQ‘ing too much? Is the mix too bright or too big?

13. Are your fades too tight? Do the beginnings or endings of the songs sound clipped?

14. Did you do alternate mixes? Did you do at least an instrumental-only mix (TV mix)?

15. Did you document the keeper mixes? Are all files properly named? Are you sure which file is the master?
1. Did you bring the highest-resolution mix? The higher the resolution, the better the final product will sound.

2. Did you bring all the documentation, sequencing, and shipping instructions?

3. If mastering the mix yourself, are you comparing your mastering to other mixes that you like? Keep referring back to CDs that you like to make sure you’re not drifting away instead of getting closer.

4. If mastering the mix yourself, do all the songs have the same relative level? Drop into each of them for a couple of seconds in your DAW to make sure they all sound the same.

5. If mastering the mix yourself, did you fix all fades and edit out all count-offs? If a fade sounds unnatural, make it sound smooth. If a fade sounds chopped, make it sound smooth.
PART 3

THE INTERVIEWS
CHAPTER 15

The Interviews
With credits that range from Aerosmith, Soundgarden, Soul Asylum, Red Hot Chili Peppers, and Ozzy Osbourne to Fuel, Korn, and Marilyn Manson, producer Michael Beinhorn is no stranger to music that rocks. But unlike many others who work in the rock genre, Michael approaches the music with a care and concern often associated with more traditional styles of acoustic music. And as you’ll read, he’s elegantly outspoken on the current state of modern recording.

How much do you engineer?

I try to avoid it entirely. [Laughs.]

But you still have your fingers in it, because you obviously know what you’re doing and you know the tools. That’s hopefully what I bring to the work that I do. To me it’s fun, but there’s also an amount of responsibility. I think if I’m going to have some sort of say in how a recording is done, then I should know a little something about what the tools can do. I should know what kind of SPL a certain mic can stand, or what the mic can actually do, or what types of things it doesn’t marry best to.

I understand that you have a tremendous vintage microphone collection.

I’ve got a couple. Actually, more like 17.

What got you on the quest for vintage mics?

To me, if you are able to have access to them, you can’t really have enough of them. [Laughs.] Especially pertaining to vocalists, because a different microphone will marry better to a different person’s voice. There’s no one microphone that does every single thing. You’re not going to take a U47 and use it on every single vocalist just because it’s your favorite mic and it works great. That being said, it’s a great workhorse mic, and as tube mics go it’s one of the best for multiple varieties of tasks. But they all serve a different function.

For me these things are like the tools that an artist uses. It’s like the palette, the paint, and the colors. But there are things that are being made today that are every bit as essential as those old microphones are. I’ve been using a lot of Audio Technica stuff, and I’ve found that for the functions that they serve, there really isn’t anything that I’ve heard that is comparable. There’s a certain amount of speed in regards to transient response that you can’t get with the older stuff. [In the old days] they weren’t thinking about how fast you could reproduce a sound. They were just concerned about capturing it, although after a while, with a greater degree of accuracy.

How much preproduction do you usually do?
Whatever it takes. It’s a broad answer, but it’s a broad question. Some bands are rehearsed and prepared and have their songs written, and maybe all they need is to have a couple of arrangement alterations. But other bands may require months. I worked with a band where their preproduction took about seven months. They also didn’t have any of their songs written, so that was somewhat of an issue too. [Laughs.]

When you’re doing preproduction with someone you’ve worked with before, does it go faster or slower?

It’s not something that I have a whole lot of experience with, to be perfectly honest with you. That’s only happened one time, and there wasn’t any difference. Really, it has more to do with what the circumstances dictate. Sometimes, if the band has achieved a certain amount of notoriety, they’re more likely to have more of a lackadaisical attitude about things—and that just equals more time spent.

When you’re tracking, what’s the most important thing for you in terms of setting the vibe?

Making sure that the band is well rehearsed and they know their music. You can coddle people all you want and act like a cheerleader, but at the end of the day if they don’t have their songs rehearsed, there’s no amount of glad-handing that’s going to be more effective than if they know every single thing that they’re supposed to play. If you want to make variations on that, and if everyone’s okay with it, then it’s cool. But if people don’t feel good about what they’re doing and don’t have some sort of confidence, then there’s no amount of cheerleading that you can do to help them. That’s like the greatest vibe killer in the world as far as I’m concerned.

Once a song is played and done really well, there’s such a sense of relief and at the same time happiness about hearing something sound so good. That’s the thing that really makes it all move.

Do you feel that you contribute to their confidence level?

I can’t say for sure, not being able to get inside someone else’s head. But I can assure you that once someone has done something well, they have to beat me down with a stick because I’m usually incredibly enthusiastic about it.

Do you usually try to track with a full band and try to keep everything?

I usually try to keep everything, but the reality is that stuff, in my experience, tends to get a little more forensic and clinical. So no matter how much we keep in the end from the actually tracking, what’s used is pretty minimal.

I don’t like to dictate to people how their records should go, but I think it should be illustrated to the individuals that I’m working with that we find a method that works. Sometimes it involves the whole band playing, but I haven’t found that to be the case unless the band has really developed some kind of ideology that involves them playing constantly together. Generally speaking, if you don’t have
that, I haven’t found that people are going to give the type of performance that I want to put on a record. But I’ll try everything to achieve that goal. Lately, what I’ve done a lot is to start out by recording just the drummer.

**What does the drummer play to? The rest of the band, or just a guitar or something?**

It’s really at his discretion initially. I find that a lot of times in the bands I seem to work with, the drummer is a fantastically good musician. The only problem is that when you hear him on a record, he’s playing like shit, and the main reason is that he’s not listening to himself; he’s listening to somebody else perform. What that means is he’s not listening to his own internal sense of time; he’s listening to somebody else’s. Usually it’s one of the guitarists, because [drummers] can’t hear the bass in a live situation so they gravitate to the guitar. It’s like a natural kind of impulse. There are very few drummers who listen to what they’re doing exclusively, and [instead] use everyone else as sort of a reference.

It’s hard to explain, but I sort of go for a sense of interdependence rather than people performing independently. The drummer, who’s the backbone of just about whatever musical endeavor you’re in, is pretty much existing in his own framework, and his dominance of the band from a rhythmic perspective is unsurpassed when cutting his track.

**Do you have him play to a click?**

Only if he wants to. I personally would rather hear the drummer’s natural time. Unless the drummer insists on using a click, I’m not going to make a fuss about it. The only time that I feel a click is necessary is when the drummer might be playing along with loops, and even then it’s something that needs to be addressed because there’s also something nice about a drummer playing out of time a little bit with a loop.

My feeling is that if you have a drummer play to a click and then edit him and line him up in Pro Tools or something like that, you might as well have gotten a drum machine to do the same thing. So why are we spending all this money tracking these drums? You could program the whole thing and pretty much get the same exact effect.

**So you don’t mind things breathing and pushing and pulling?**

No, as a matter of fact I think it’s essential. You don’t want a sloppy drum track; but at the same time, if you don’t get a sense of a person’s natural groove or rhythm, you might as well get a drum machine. For some types of records, I think that’s ideal. But for the type of records I’ve made, it’s kind of pointless.

**Is your approach in the studio the same with each artist?**

I think it’s good to go in with a plan, but at the same time it’s also good to expect the unexpected. You
never know when something is going to change. You never know when someone is going to flip out and go crazy. On this last project that I was working on, the band asked to do the guitars first and the bass afterwards. I’ve never done a record like that before, but what are you going to say to them, “No, I don’t work like that. No, it messes up my flow”? [Laughs.] They wanted to work like that, so I said, “Fine, okay.”

What’s the hardest thing for you to do in the studio?

Mix. I’m a shitty mixer. In all honesty, I haven’t devoted myself to it, and so I can’t say that with absolute certainty. But I don’t fancy myself to be that guy.

There are so many “specialists” these days, anyway.

I’d like to eliminate the specialism of recording. The concept of a mixer has always been “bring in a guy at the end who has a fresh perspective” or “is more objective” or whatever you want to call it. I began to realize that it’s kind of a con that the record companies do. It’s something that they’ve come to rely upon as sort of a security blanket, and it also stems from the fact that in the old days mix engineers were generally the people who recorded it. They were referred to as “balance engineers,” because everything had been recorded to taste just the way they wanted it. At that point, it was just a question of balancing everything properly. Nowadays we can’t make a record without a “mix engineer” attached to it. I don’t think that model will continue. It can continue but it’s going to become irrelevant pretty soon, especially if people ever learn how to record properly.

And this is a tremendous issue, as I’m sure you’re aware, and it’s one of the reasons that you seem to have gotten in touch with me. There are a lot of people now who have a tremendous problem with the way records are made regarding the lack of quality.

Traditionally, when people had less to work with, they were more creative. You’re throwing a whole bunch of recording techniques at people that look easier, but deceptively so, since they really aren’t. Like digital recording is way more complicated than analog ever was. So you have this problem right now where you have this tremendous “de-evolution” of the technique of recording, where there’s not enough consideration about what goes into making a good-sounding record. On the one hand there are people who say, “What difference does it make? No one really cares anyway.” But I think the only people that don’t really care are the people at record companies who want the record done for X amount of dollars who say, “Just get the thing done. Just do it fast and do it cheap.” That sends a very negative message to people and takes quality control out of the picture. Fast, cheap, and good—you can only have two! [Laughs.]

The problem is that the world wants convenience. We’ve been turned into a culture of convenience addicts, all of which is fine and good because we can expedite whatever functions we happen to be performing in our daily lives. What it does for the quality of that function is a completely separate issue. So the question becomes, “Is faster really better or more efficient?” “Is quality such a necessary aspect in recording anymore?” The answer isn’t necessarily “no”—it’s more like “maybe.”

Some of the acts that you produce have a lot of distorted, layered guitars and other distorted parts that some say don’t necessarily need to be recorded pristinely.
That’s the whole point of why it makes sense to do that there. The reality of the situation is that harmonically there are immense similarities between a symphony orchestra and a band that uses multitracked, multilayered, distorted guitars. Really, from a harmonic standpoint, there’s no difference at all between the functions that these types of things serve. They’re essentially operating in the same general frequency range. Guitars and string sections—it’s all the same. I believe you get the same psychological effect from a group of violins that have been miked closely to pick up the grit as you do from the electric guitar [miked the same way]. The electric guitar is a very complex sound. How the distortion works and what you do with it is key to being able to understand it. Distortion is a very important thing in modern recording. Things like how it’s dealt with, what function it serves, where it sits in the mix, and how you get separation are all important.

If you’re dealing with a band that has two guitarists, both of whom use extremely distorted sounds, like with Korn, what distinguishes a record that you would make from any other record? Being able to perceive what’s going on between the parts on the record. Tape compression is not your friend at this point. It’s only going to obscure these issues.

In the meantime those issues, to me, are paramount. I would like to make a record, and I try to with those guys, where you can hear aspects to the sound that you wouldn’t otherwise. Unfortunately, this is not a popular viewpoint owing to the fact that bands of this genre are seen as a bastard form: something like an aberration that may someday go away if we close our eyes long enough so we don’t have to deal with it anymore. Most label people are highly dismissive. They don’t treat it with the care that any form of art deserves. They’re willing to shine it on as a bunch of distorted guitars by a “kid that can’t play anyhow.” That’s the reason I try to do it as best as I can. To try to stand away from the pack and fight mediocrity. That’s what I care about.

Do you go for perfection, or for vibe?

What is perfection, first of all? To me, perfection is the vibe. To me, perfection is the feeling that you get when someone is giving a great performance. The reality of the situation is this: listen to a Led Zeppelin record. Those drum tracks are pristine. Now you listen closely to how Bonham is playing, and the guy is all over the place. He’s slowing down and speeding up. There’s no consistency at all. But you get the vibe that this is not someone to be trifled with, and he’s holding the whole band together.

If you want to listen to perfection and something that’s lined up to the nearest 16th note, get a dance record. By the way, I happen to love electronic music and it’s one of my first loves, but it’s a different type of music. It’s a different aesthetic, so don’t make the comparison. Don’t hold them up to the same reference.

In the ‘80s people started doing everything with clicks and chopping tape like maniacs and making everything as tight as they possibly could. While production went to a new level as far as how anal people could get about things, it also took a lot of the life out of music.

Beat Detective and Auto-Tune do the same thing.

Again, these are tools that, in the right hands, can help you make creative music. But in the hands of
people who are just trying to work as quickly as they can and have no interest in things having some sort of feeling or atmosphere to them, then they’re more like a gun that’s used to kill people rather than protect them.

What advice would you give to someone starting out about how to make his or her recordings better?

I don’t think there’s any one piece of advice that you can give somebody. Most people don’t know how to record, so learn how to engineer the right way (and I don’t mean by going to a recording school). From a technical side, make sure that your source is the best that it can possibly be, and make sure that whatever you’re picking it up with is the best transducer that you can possibly afford.

The reality is that there’s a chance that in spite of all this, you could make one of these crappy recordings that everyone else is making these days and wind up with a record that sells 3 or 4 million records and be riding around in a Lamborghini. But all that sort of stuff is short lived if you still don’t know how to set a microphone up.

The bottom line is this: if you’re not willing to devote yourself heart and soul to recording, you may as well not get into it. The key to me is devotion and respect for the people who are listening to what you do, so that you have to try to make something of lasting value.
Enjoying a hit record with his very first production, *BlackHawk*, in 1994, Mark Bright has gone on to become one of the architects of the modern contemporary country sound. With production credits on hugely successful albums by superstar acts Rascal Flatts, Carrie Underwood, and Reba McEntire (whose “Keep On Loving You” was No. 1 across the charts at the time of this interview), he continues to blend cutting-edge production techniques with traditional country values and his love of a great song into a sound loved by all music fans.

**Did you become a producer as a result of writing songs?**

I’ve always written songs, but as I was songwriting in Texas, I learned how to become a recording engineer. I moved here [*Nashville*] in 1981 with engineering skills, and I got work at House of David [*a historic studio on Nashville’s Music Row*] as an assistant while attending classes at Belmont College [*now Belmont University*]. I spent three years at Belmont while I honed my engineering skills and continued to write songs.

Right next door to where I was working was a publishing company called Screen Gems/Colgems Music, where I eventually got a job in the tape room. I was really interested in working there because it put me closer to great songwriters, and I felt that if I ever was going to be a great producer, I had to get close to great songs.

**Was being a producer your aspiration from the beginning?**

Yeah, from the very beginning. When my sister brought home Beatles records, I was completely smitten, and when I started seeing George Martin’s name on them, I thought, “Wow, I want to be George Martin someday.” So from that point on, I watched for other producers’ names on records—like Phil Ramone, David Foster, and Mutt Lange—and I just dreamed of being that guy every night.

**Did you start making a name for yourself as an engineer, or jump right into production?**

The deal I got from Screen Gems (which was later bought by EMI) was that they’d give me the use of the studio if I engineered and produced their publishing demos. Every day I continued to work with songwriters, hone my skills, and develop a sound.

In the early ‘90s I was introduced to Henry Paul, who was the former lead singer of The Outlaws. Henry had come to town to make a record with (producer/industry executive) Tim DuBois, who had just opened Arista Records in Nashville. Tim didn’t necessarily see Henry as a solo country artist, and set him up with a couple of songwriters named Dave Robbins and Vance Stevenson (all three eventually became the group BlackHawk) and gave them a development deal. They recorded some songs with another producer that weren’t very good, so I asked them [*Robbins and Stevenson*] if I could work with them on my own time in the EMI publishing studio. After several months, we figured
out an incredible vocal sound for Henry and recorded five songs, three of them not even published by EMI at that point.

When Tim heard the songs, he loved them and called me in to see him. He said, “Mister, I don’t know what you did, but this stuff sounds like a hit so I’m going to give you a shot. Whatever you do, don’t screw this up!” [laughs.] He put his name on the record as a producer to give me some credibility and was available when needed, but he gave me all the points and the whole deal. So it was Tim DuBois that gave me that first shot when nobody else in town would. And that’s the critical thing—there always has to be someone who’s willing to give you the shot, and Tim did. And our first single [“Goodbye Says It All”] was a hit.

**Do you consider DuBois to be your mentor?**

Absolutely, I consider Tim to be the biggest catalyst and mentor in my career.

**Have you continued to engineer since then?**

No, but I certainly can. I have a Pro Tools rig and a few pieces of outboard gear at home, but that’s mostly for my own demos while I’m writing. I have an engineer named Derek Bason who I’ve had an eight-year relationship with, and we work together on everything.

**What are the budgets like that you’re working with these days, as compared with five years ago?**

Honestly, with the big stars, budgets are not something that we worry about. Yes, there is a budget, but it’s more important that we make a great record. I do occasionally work with a new artist that I really believe in, and in those cases the budget does very much come into play. When that happens, I don’t even bill for most of what I do. I don’t take an advance, but I get more points on the back end, instead. I’ve worked on a bluegrass record with a $5,000 budget at the same time I was working on a Carrie Underwood record. It doesn’t matter to me, because it’s about the music.

For me it’s never been about money, ever. It’s always been about passion for music. That’s always been the thing that’s driven me. I never thought I’d make a nickel in this business, so if you go in with that point of view, any money that comes is just icing on the cake.

The budgets are smaller in general, and so are royalty streams, because sales are way down. How does that affect how you look at a project, taking into account what you just said? I mean, at some point you’ve got to think, “I’m working really hard here for what amounts to a lot less money.”

That’s an interesting conversation that I have with some of my other producer friends who live and die by how much they make, because they’re used to making a whole lot of money and their lifestyle reflects that. Yes, I have a nice lifestyle, too, but I’m also involved in many other aspects of the music industry.
For most of my adult life, I’ve had a very successful publishing company joint venture, so I’ve always stayed close to the music. That’s very important—to stay close to the music and the songwriter. It’s a primal need for me to have access to the hit song. Honestly, that’s always brought in money, and so I’ve never had to worry about the royalty stream from the records I’ve produced. One artist might sell a few million and another might not sell anything, but it all seems to even out for me. I’m involved in so many different areas that if one part isn’t making money, then hopefully another somewhere is. But in the end, I’m just working on stuff that I love, and as long as I’m honest about that with myself, it all seems to work out. I have been truly blessed to make a living in a business that I love.

**Publishing is still the one facet of the music business that’s doing well.**

Publishing has always been a blue-chip business. It’s not sexy, but it’s always been strong.

**What’s your preproduction like?**

It’s very artist and budget dependent. For instance, if I’m working with someone like The Isaacs, which is a southern gospel group, we go into a rehearsal room and we’ll rehearse the music over and over and over again. Since there’s very little money to work with, it becomes very important to know what you’re going to do once you get on the clock.

With an artist like Carrie Underwood, preproduction becomes very song dependent. If we’re tracking with a live band, we don’t do any preproduction. We get the band together and they’ve never heard the song before. While most of the band is listening to it in the control room, I take Carrie and the piano player into the keyboard booth and spend anywhere from 20 to 45 minutes finding the correct key for her. After that, I’ll just spit out a bunch of ideas to the band as they’re listening, since I’ve already listened to the song many times and have ideas in my head that I have worked out in my home studio.

I have two separate crews that play on Carrie Underwood records, and both of them know full well what her sound is and what she likes. Let me emphasize, we’re not making my records—we’re making Carrie records. Once they get out to their respective positions in the studio, they’ll play through the song without Carrie’s on the mic and get an arrangement that is fairly tight. But let me tell you something: once Carrie gets out there on that mic, everything changes. She starts singing, and the level of excitement and musicianship goes through the roof. It happens every single time. When a great singer gets on mic, it inspires everybody.

The same thing happens with Reba. It’s just that intangible thing that occurs when a truly gifted singer gets on that mic.

**Do you ever keep the tracking vocals?**

Yes. I’m not at liberty to say which tracks we’ve kept, but for both Reba and Carrie we’ve kept both portions of the tracking vocal, and in Carrie’s case, even all of the tracking vocal. But that’s not what the story is about. The story is about how great that artist is overall. Both of them exhibit the kind of behavior where they sound like a record when they’re singing their tracking vocal. It’s really frightening how great that is. You feel like you should be paying someone money to be sitting in there
The sessions must go quickly then.

No, that’s not true at all. I think with both of them, because they can do what they can do, you want to get it to where you’re doing very little to no tuning of the vocal at all. In order to accomplish that, you sometimes need many, many passes. When we do vocal day, we’re talking about upwards of 20 to 23 passes per song, so it takes a long time to put a song like that together. What you get with that many passes is the perfect pass.

Twenty-three passes? That makes for a long comping date then.

Yes it is, but that’s why these records are expensive. That being said, we’re spending our money on actual recording instead of on frivolous things like eating and traveling.

How long does it take to comp a vocal then? It takes us anywhere between 8 and 12 hours.

What’s your process? Is it something like mixing, where you let the engineer start it and you come in toward the end and tweak it?

Yes. We’ve developed a system that’s finely tuned after this many years. When we’re tracking vocals, I mark my favorite pass or parts of passes or lines on my numbered comp sheet and Derek marks his, and we compare them. The ones that we agree on are obviously the ones that we comp out first. Then we go to the ones that I like, but if they don’t work then we do the B option. I don’t have to sit in there the whole time, because Derek knows what I’m looking for during that process, and because of that, there may even be a C option that he’ll find and drop in for me to listen to. Sometimes I’ll go, “Wow, that’s incredible. I don’t even want to hear what the other options are,” and sometimes they don’t work.

The other thing with a lot of great singers is that I let them know when the last pass is coming, and I’ll ask them to do whatever they want on it. Whatever comes into their mind and out of their mouth, just do it. A lot of time, assuming that the vocalist is not too tired, you’ll get some incredible stuff out of that pass.

Do you have any particular techniques of getting a great performance from a vocalist?

That’s the whole thing for me. I don’t want to work with singers that are marginal. I come from the David Foster school in that I want to work with really excellent singers, and all I want to do is coax the best performance that I can out of them without telling him or her how to sing the song. That would include making sure that the singer is comfortable with the headphone mix, that they’re comfortable in the room, and that they feel secure and happy. Just put them in the best environment you can put them in and let them go. If they’re swallowing a word, I might say, “At line 25 you’re
swallowing that word a little bit, but you’re sounding great!” and just be honest about it. But I don’t believe in telling them to “sing this line this way because it’s my way,” because it’s their record.

How long does it take you to track a record?

Generally, in Nashville it works a little differently than it does in New York or Los Angeles. We’re a union shop here in Nashville, so we work in three-hour sessions that start at 10 a.m., 2 p.m., or 6 p.m. Typically, we’ll do one song per three-hour session, but that’s just the basic track. Over the course of the next four to five months, we’ll be adding other instruments and the vocals to it.

How large is the band that you use for tracking? Depends on the artist. Sometimes it’s a very stripped-down band that’s only drums, bass, electric guitar, and piano. Sometimes it’s drums, bass, acoustic guitar, two electric guitars, steel guitar, and violin. Basically, what I’m doing is casting it not only per artist, but per song.

How long do your overdub sessions last then, excluding vocals? Are they in the same three-hour increments?

No, you can book a special, where it’s only an hour and a half, or it could be a lot longer. Like in the case of “Jesus, Take the Wheel” [Carrie’s first single which was a 14-week No. 1 record], we had a string player come in and play all the orchestral parts from first violin all the way down to double bass, and it took about nine and a half hours.

An hour and a half is pretty fast by L.A. standards.

Yeah, but we’re more structured. We have templates already set up here. If we’re going to record Jonathan’s violin, we don’t have to rent any gear. I work in one studio only [Starstruck], and I have the overdub room booked 24 hours a day. When you’re staying in that one room, you know how every nook and cranny works and you know just how it sounds. And we have templates set up for every player and every instrument. If it’s this fiddle player, then it’s this particular signal path. If it’s someone else, then we’re going to use this other signal path. Maybe we’ll use a plug-in to make it sound different, but we’re not starting from scratch with these guys every time, so it’s much more efficient. Whenever I record in L.A., it’s à la carte and I have to rent everything I want to use because they’re not going to have the compressor or preamp or mic that I want.

I like the mind-set of Nashville, where you’re not afraid to track with eight or nine players. That’s pretty taboo here in L.A.

It’s unheard of, but I will say this: we’re not afraid to do track builds, particularly with Carrie
Underwood. We might start with programming and stay in the virtual world for several weeks, and once I get comfortable with where the track is virtually, I’ll bring in a drummer to play on top of it. When I get comfortable with that, I’ll bring in a guitar player—just like you’d do it out there.

What are you looking for in a song?

It’s the perfect marriage of the perfect melody married to a great lyric. Number one, it’s got to be suitable for the artist. It’s got to have a story for the artist to tell or an emotion that the particular artist can actually convey.

How much time do you spend looking for songs?

Just hours and hours. I have my own A&R person, Kirsten Wines, and all she does is spend her days looking for songs. I also have songwriters who are my go-to people that will call me up whenever they’ve got a hot song. I’m always going to stop what I’m doing for some of those big-hitter songwriters.

How long do your mixes generally take?

Generally two days minimum, and up to five days max. The first one [of an album] is usually harder than the rest, because that’s setting up the whole template for the sonic character of the album. In country, you have a single sonic imprint for the whole album. We don’t try to make one song sound too different from the next song, because culturally that’s not how it works here. We’re going to go for a texture that runs through the whole album. Maybe in the next album it’ll be texturally way different than the album before, but we won’t alter that texture drastically within an album.

So once you set up your sounds, you’re keeping it that way for each song?

Yeah, you’ll change reverb decay rates and stuff like that, but you won’t all of a sudden go from one sonic palette to another from song to song. There are some artists who do that, but not so much with the bigger artists. Our fans want to hear consistency, and they want to hear “great.”

It’s really crazy. What’s considered cliché in country is considered ridiculously cliché in pop, and what is considered cliché in pop is considered ridiculously cliché in country. I have plenty of country records that cross over into the Hot 100, but the cultural subtleties are incredibly subtle, yet not so subtle, at the same time.

That being said, Carrie does not like remixes for different formats. Reba doesn’t mind, and most of the artists I’ve worked with over the years don’t mind. Carrie does not do different mixes because artistically that’s just not where she’s at, so if it’s going to cross, it’s going to cross on its own merit. We don’t do a Hot AC mix, we don’t do an urban mix, and we don’t do a pop mix. We don’t do any of that kind of thing.
How many alternative mixes do you do?

We do different versions for mastering, but not for public consumption. We do TV mixes and all the same versions that everyone else does, but that’s not for the public to hear.

Do you have a particular mastering engineer that you go to, or doesn’t it matter to you?

It does matter to me, but it depends on the sound we’re going for. Country mastering guys make it sound a certain way because country radio programmers set their broadcast compressors a certain way, which is different from what Hot AC guys do and what pop guys do. You have to take that into consideration, because you wouldn’t want to get a mastering guy who does primarily Hot AC if that isn’t where you’re going to be played. I’d say a go-to guy for me is Hank Williams [at MasterMix] here in town. If we have a lot of contemporary stuff, I like Gateway, and we use those guys quite a bit.

Do you attend the mastering sessions?

It depends. Gateway, definitely not [it’s located in Portland, Maine], but we send WAV files back and forth, and we tweak things that way. It works just as well, and in fact, I prefer hearing the songs on my own speakers because I know them like the back of my hand.

What’s the best piece of advice you’ve ever received?

A long time ago someone told me to thrive on rejection, and I’ve always taken that to heart. I think it’s particularly relevant now. If someone tells you “no,” you figure out another way to get it done.
Producer-engineer Jack Douglas has worked with music legends such as John Lennon, Aerosmith, Cheap Trick, Alice Cooper, The Who, Patti Smith, and The Band, among many others, and has produced a number of celebrated albums like John Lennon and Yoko Ono’s *Double Fantasy*, Cheap Trick’s *Live at the Budokan*, six of Aerosmith’s best records, and Patti Smith’s *Radio Ethiopia*. He’s also engineered such seminal records as *Who’s Next*, *Woodstock*, and *Imagine*, among others. Obviously Jack’s work speaks for itself, and as expected, he has some particularly interesting observations on recording—past, present, and future.

**How is dealing with artists different now from the way it was when you started?**

The way I deal with artists is still pretty much the same in that I really dig into an artist to try to find out what that artist is trying to say on the record. I want to find out what vision it is they have, even if they don’t think they have one, because there’s always something. I try not to put some kind of stamp all over it that says it was made by me. I really try to get the total artist record.

**Do you have a method about how you go about doing that?**

Well, it’s really important that I get along with an artist pretty well, so I like to hang out and socialize with them. I also like to have a pretty good preproduction period.

**How long?**

That varies. A pretty good preproduction period could be a week for some artists and it could be a month for others. That’s not to say that it’s all rehearsal, because you’ve really got to find out where the artist is coming from.

**Do you have a particular trick to working with an artist?**

The trick to working with an artist is to let him realize that you’re on his side. I like to work with new artists, and new artists have always been suspicious of people that are on the other side of the glass. They feel that in some way or another we’re out to get their music and to do something to change it. I want to convince an artist that all I want to do is take his music and help him get it on the record so that it is in fact what he wanted to begin with.

New artists especially get very insecure about their own stuff, so it’s important that they’re confident after we’ve worked on the material. If I can keep an artist’s confidence up in the early part of building a record, that record is going to work. A label signs an artist because they have a sound, then gives them all this money to make a record that sustains that sound—and that’s what I try to do.
The other trick is to try getting it live.

**Do you track everything live?**

As often as I can. If I’m working with a band, I try to track with the whole band together. And if I have good players, I will really try to make it as live as possible.

**Are you trying to keep all those tracks as well?**

Absolutely. In fact, I go for a lot of leakage. I like to hear guitars and bass in the drum track, and on one guitar track I like to hear a little bit of the other one leaking in there, if there are two guitars. When you put it all together it just sounds so much bigger, so I try to hold on to those if I can. I love live vocals. I mean, you really get the excitement, and that’s important. It goes back to preproduction. You have to get the artist ready for the studio. And I don’t mean ready like there’s not going to be any surprises, like they’ve learned it like robots. That’s one of the big problems with rock ‘n’ roll now. Kids get into garage bands, and they get in the habit of memorizing everything. Sometimes I get a band and I have to go the opposite way in that aspect. I have to say, “Lookit, let’s not lock in so much here.”

I can remember recording this guy (I don’t want to mention the artist’s name), and if he was going to sneeze in the middle of this guitar solo, he’d make sure that he did that every time he played it. Every single note had to be perfect. That doesn’t work for me. There’s gotta be some surprises.

Generally, I like the band to know and to understand the piece, and usually drummers have to work a little harder at this for some reason so they know where the shots are and what has to be emphasized. Plus, you’re almost always dealing with someone that doesn’t read music, so I usually have them draw little charts. But, for the most part, I encourage them to let go and try things.

I always tell them that they’re holding back during rehearsal, even if they aren’t. Even if they’re at rehearsal playing their absolute best, I will say, “Well, when we get into the studio, you can really let go.”

I take it that you’re not one for studio perfection, so to speak.

No. I mean, I don’t like a real blatant mistake at all. But what I’ll do if there’s a mistake is, rather than go in and just have the guitar player or the bass player fix this one piece, just cut in another take so that I can keep that sound, rather than all of a sudden have all the leakage disappear from the drums or the guitars. I don’t mind imperfection or when the band goes in and changes the whole arrangement around on me because all of a sudden it felt better that way. That’s cool if it really works.

**How are things technically different from when you started?**

Well, I feel like I’m going to say I started recording on stone. [Laughs.] I went through a lot of different changes, and I ended up just like I started out: recording analog. I started out using tube equipment, went through every piece of gear in the world, and ended up trying to use tube equipment
as often as I can. When I started, we were working on 4-track, then the move up to 8-track was quite a big deal. Then for a long time we made records on 16-track. I sort of like that format and sometimes I will still use it, although it’s very difficult to find 16-track head stacks at times. If there are gonna be string overdubs or orchestrations, I really prefer analog for that, but for keyboards and vocals, that works digitally. I’m still using the same mics, because they don’t seem to have improved mics that much.

How critical is the engineer for you? Can you get what you want and need out of anybody?

No, not out of anybody. The guy’s got to know a little bit of what’s going on. I mean, I’m an engineer, so I can be really tolerant of somebody that’s kind of new at it as long as they have ears. But I prefer to work with somebody really good, because then I can really give my all to the artist and not have to think so much about the sound, especially if I’m cutting tracks.

And the other thing is, there’s a class of engineers that’s really just tremendous. I’ll take the tracks to where I think they should be with the engineer, and I’ll say “Wow, that’s terrific: great drums, great guitar, phenomenal bass.” And then when I’m out in the studio running it down with the band, cause a lot of times I prefer to be with the band during the take, that superclass of engineer has taken it like twice what I heard while I was in there. I’ll come back in and get a great big surprise. That’s what I really like. Engineering is really, really an art, and there’s some real good artists out there.

How have things changed in terms of what effects you use?

The options are just phenomenal now. Things that I used to have to go crazy doing are just so simple to do. But again, I find I end up going back and doing it the old way. I mean, I still like the sound of real tape-machine flanging better than anything. I like natural acoustics rather than artificial, so I guess I’m just an old-fashioned guy.

Does that mean you still use real plates and tape slap and stuff like that?

Yeah, sure. I prefer live chambers, a plate with an analog tape delay on it, real tape delay, real tape flanging, and natural acoustics when possible. I did an album with The Scorpions in Germany in a great big old house that was, for me, just a gold mine. It had marble staircases, bathrooms that were full of mirror and tile, and an indoor swimming pool with a roof that opens and closes. We drained the water from the pool and put the drums in there, and as a result I got all kinds of really great effects. I’m in heaven when I’ve got that kind of stuff. The sound of it is just incredible because it’s a real physical sound. It’s like theater in that it’s real, and when you hear it like this, you can see it in your mind as well. You can see the sound that’s surrounded by this strange ambiance. You can’t identify what it is, but it alerts your senses that this is not the norm.

Certainly by now every listener out there has heard every possible device and plug-in that you can buy on the market, and there are thousands and thousands of kids making records in their houses with inexpensive DAWs. We’ve become desensitized to most effects. The only thing that’s going to stir your senses again is if you walk into a cave and yell out and hear the echo that naturally happens by itself. That’s how we started out, because we were forced to go that way. And like everybody else, I tried all the new toys, and some of it is so convenient that you can’t not use it. But for the most part,
I’ve always enjoyed your guitar sounds, especially a guitar with a reverb that’s very short but loud that made it sound really big and fat.

Yeah, it was like when you were doing 16-track, you had to stack so many things onto a single track because there was no place else to put them. On most of the Aerosmith albums, we had to stack things one upon the other, so any effect that you were gonna do on that instrument, you had to put it to tape when it was going down.

So you printed all your effects?

Printed everything, so I’d really make sure that I was going to have all the loops and the ambiance and everything I wanted on that track. During the mixing process I might have to brighten it up a little bit and it might need just a little plate reverb to meld it into the whole. Then this guitar would come roaring in with a sound that had become visual, because it would just cut right into the track with all the personality already on it.

That’s the perfect phrase—the “visual personality.” That would be the thing that would really distinguish the records that you do, because there would be parts that would just come out of nowhere that would grab you. There would be no way you could not listen to it.

The thing is, if you’ve got that effect right on that track, and say you’ve got it panned slightly left of center, this fur and everything comes flying just in that one place. It’s not over to the left, it’s not over to the right, it’s not an effect that’s spread left and right. It’s just there in this one spot, burning away while it plays, and then it’s gone and it’s like, “What the hell!” Having learned that from the ‘70s, I’ve gone around the circle and come back and said, “That’s the way to do it.”

Do you have a specific approach to mixing?

Well yeah, I do. On the technical end, I’m into a lot of bused limiting. I’ll have all these limiters where I just hit a bus and I’m dumping into limiters all the time, and they’re going back to the track.

Give me an example.

Well, I’ll have a Fairchild or something—either stereo or mono, but I prefer mono—dedicated to drums and drum ambience.

The whole drum track?
The whole drum track. So I’ll be dumping it into the limiter all the time, and I’ll be listening to it but not in the track yet. I’ll just be soloing it every so often. When I finally have the drums mixed the way I want them, then I’ll pop the limiter in that I’ve been previewing all along. All of a sudden the drums will just really come to life.

This is just mono now?

The limiting is mono; the drums are up there in stereo. And I can make them superwide stereo. The limiting will just pull it together, tighten it up. And if you have the proper timing on the release and input, every time he hits the snare it’s gonna pop right out of there. But I do that with everything. There’ll also be guitar buses for limiters—again usually mono.

All the guitars are in it?

Yes. That’s really obvious on the Aerosmith albums. It makes Joe and Brad, who never really played as tight as they sound on the record, sound supertight. And again, the limiter is mono and the both of them are in one limiter, which tightens them up. Then I’ll have a limited bass, but I’ll sneak some of that limited bass up into the drum limiter.

Do you mean true limiting, where you’re at 20:1 or something like that?

Yeah, I’ll sneak some of that limited bass into the drum tracks.

How hard are you hitting it?

It depends on the limiter. Shelly Yakus has a great answer for that. When you asked him how hard, he’d say, “‘Til it sounds right.” Shelly was great. One time I was Shelly’s assistant and he taught me the greatest trick ever. He’d tape cards across the meters so he couldn’t see them. He’d say, “You’ll know when it’s wrong.”

This also works great when you’re tracking on analog tape, because if you have any courage at all, you don’t start making the tape come to life until you’re well over zero and you’re starting to use some of the compression that tape is going to give. And of course there’s just no room for any noise. Again, that really depends on the type of act that you’re doing, and even depends on the type of song. I have an old Ampex 300 deck that’s my own that I like to bring in [to the studio] to mix with. It’s got old tube electronics. I’ve been using it for a long time. You get a lot of compression between the tubes and the tape. Sometimes you can even take a piece of the song and transfer it over to whatever your other format is and use it. And the scary thing is that you’ll love every mix you hear on it.

How do you approach setting up the effects when you’re mixing? Do you go in with something set and say, “Well, I’m gonna start with my short plate, my long one, or whatever,” or is each
I pretty much know by the time we come to mix the tune what I’m going to need. I will start with a few plates and a live chamber if they have it. I very rarely print an effect to the vocal track, so I know I’m going to need something for the vocal track.

So there is one effect dedicated just to the vocal tracks.

Yeah, there’s gonna be an effect dedicated to the vocal tracks up on the board. It might be like a delayed chamber that’s flanged and de-essed. I usually know what it is by the time I get to that tune, so I’ll tell the engineer or the assistant, “When you’re setting up for this one, I’m going to need a bus that hits this, or a bus that hits that.” I like to rent old Echoplexes. They’re still around, but you find that guitar players rather than rental companies have them.

Sometimes I’ll run into a guitar player who has a whole load of great effects and I’ll insist, especially when I see him live and see that he’s using that stuff, that when we cut the tracks I want to hear it coming out of his amp to get that sound. Because a lot of times guitar players will come in, and they’ll go, “Well, can’t you add all that stuff later?” or “Wouldn’t it be better if you did it?” And I say, “Well, you’ve been doing it all this time, and it sure sounds pretty good when you’re on stage.” It sounds different when it’s coming out of an amp than when it’s added later.

Just like I can remember when I was a kid watching some of these old-time producers—when the guitar player would go in and he’d turn the reverb up on his Fender and they’d go, “What are you doing that for? We have a $1,000 reverb right in here. Turn that shit down!” And the poor guy would turn it down. It was almost like the principle of “That’s a cheap reverb in your amp, so you can’t use that. We have a big EMT here that we’re gonna use for that.” I was so lucky that I came up that way. I got to work and steal from all the great producers.

You started in New York, right?

Yeah. I came up the tape-op/assistant-engineer way at the Record Plant, and I really got to see them all work. It really was an absolute blessing to be able to work with lots of great engineers and producers. I could see what didn’t work and what did, and I started putting my tools together from a catalog that was 50 percent stolen from a bunch of greats and 50 percent my own ideas. In the stirring together of all those things, I think I came up with something that’s a little original. Today it’s different. I mean there’s guys out there that just walk into a studio from out of a club where they’re DJ‘ing, and they’re sounding phenomenal.

That’s true, but their school is listening to records all the time.

So I’m saying it can work any way you look at it. I mean, I grew up listening to records. In fact, I decided I wanted to become a producer while I was listening to *The White Album.*
Is there a particular project or record that you find the most personally gratifying?

Yeah, sure. The John Lennon half of Double Fantasy. Recently, somebody brought up a CD of the John Lennon compilation album, and as I was listening to “Watching the Wheels” and “Beautiful Boy,” I couldn’t help listening to my own work and hearing how awe inspired I was by that artist. I mean, he was in Bermuda, and he sent me little tape copies of these songs in their rawest possible form. Just him on a guitar, and all his instructions would be like, “This is angular, make it circular.” And it was so inspiring that now when I listen back to that song, I think, it’s circular. It worked! I was so inspired by everything that he did. He was a true artist. When he was in the studio, he respected your position, and your position was to help him make that record what he wanted it to be. He was in your hands, and it was an incredible feeling.

How about Aerosmith? Were most of the Aerosmith records done quickly?

No, no, no! They were labors of love. They were so much fun that I still laugh. I was talking to Joey Kramer [Aerosmith drummer] yesterday, and he said that for two weeks they rehearsed these really obscure songs that they never, ever play in concert, like “Nobody’s Fault” and “Sick as a Dog,” because they’re tuning up for a new album. Joey told me that while rehearsing these songs, they laughed and laughed and laughed remembering how they were originally put together during preproduction and in the studio. I never had so much fun in my life working as when working with those guys. Until we all got sick, it was a wonderful time. We all made great records until we couldn’t make records any more.

Those records were great, and they all had a personality. You listen to those records and they’re timeless.

The lucky thing is that they’re flat-footed rock ‘n’ roll. They have no reflection of the times. You can’t even tell we’re wearing bell-bottom pants. It’s like the Stones. A lot of their stuff just holds up and holds up cause it’s just flat-footed rock ‘n’ roll, and that seems to work best. It was never a flavor of the month. It was kind of always there.

What was your approach with Aerosmith? Any different?

When they came off the road and it was time to make a record, I would say, “Well, what have we got?” And they’d say, “How ‘bout this?” [Guitar sounds.] “Oh, that’s the song?” “Yep.” And that’s what it was like. They would have a guitar riff that somebody came up with, and that was a song. That’s what they would come into preproduction with: these little gems that had to be made. And the fun was, we would sit in preproduction and work them into songs while Steven scatted phonetics over them. He would stage phonetics until we actually laid them down in the studio, and he cut live tracks that were like: [Douglas sings phonetics]. That’s all they were. Then we would take cassettes back to my house, and Steve and I would sit there and turn those phonetics into lyrics. They would always be the right phonetics for the song cause they sounded good, so all you had to do was kinda get them to be words and they would automatically fit. That was the formula we had.
Although featured in my book about Music 3.0 for his chops as a music publisher with his Artist First Music (he’s also president of the American Independent Music Publishers association), Richard Feldman has an equally rich history in reggae music production. With credits ranging from amazing reggae music stars like Andrew Tosh, Joe Higgs, Junior Reid to The Congos, I Threes, and Wailing Souls, Richard also won a Grammy Award for his 2005 production of the legendary Toots and the Maytals’ *True Love*. While his non-Jamaican credits are formidable, producing artists such as Keith Richards, Ben Harper, Willie Nelson, No Doubt, Eric Clapton, Bonnie Raitt, and many more, it’s his reggae connection that truly makes him unique.

How did a kid like you from Oklahoma get into Jamaican music?

In 1970 I went to Jamaica on vacation and fell in love with reggae music because there’s some essence of Jamaican music that captures the nitty and gritty of all kinds of soul music, which I was already into. My interest was probably ahead of a lot of people’s, because reggae really wasn’t that popular at the time. There were a few Jamaican singles out at that time like “My Boy Lollipop” [*a 1962 pop hit by Millie Small*] and “The Israelites” [*a 1968 hit by Desmond Decker*], which I didn’t even know was Jamaican. It was the rhythm and heavy bottom end that I heard in the clubs and through the outdoor sound systems there that really knocked me out.

I came back to Tulsa with a lot of records, and in 1973 I started a band called Guava. The band included some members of Eric Clapton’s band at the time [*when they weren’t on the road*], and we actually started playing our own hybrid version of reggae music, so I slowly learned how to play it. In fact, Family Man [*Bob Marley’s bass player*] stayed at my house when they came through Tulsa, and he and I recorded two records on my little 4-track recorder. Working with a guy like that who really knows it taught me a lot, because I was learning from a master.

Then in 1978 I went down to Jamaica to play on Inner Circle’s record as a guitar player, and I actually got fired. They really wanted a rock player, but I naively thought that they were hiring me because I could do all the picking guitar stuff that they did. In hindsight, I was pretty stupid, because there were hundreds of guys in Jamaica that could do that, so why did they need me to play it? I remember as I was overdubbing on their new album, they kept asking me to “model it,” and I just couldn’t make out exactly what they meant. When the session was over I asked them, “What were you trying to tell me?” They said “model it” meant to swagger like a model down a runway, or to blast your licks out. It turned out to be a good experience and a good education, and I made some connections, but it really wasn’t until the ‘80s that I did any production.

How did that happen?

Lee Jaffee, who I had met in Tulsa with Bob Marley and who had brought me to Jamaica to record with Inner Circle, hooked me up with the Wailing Souls. I did an album with them which won a
Grammy nomination and led to more work. Lee also referred me to a record label that wanted to do a potpourri of reggae artists. I produced a wide variety of artists for them, some things like Volume 1 and 2 of reggae versions of Grateful Dead songs.

In the spirit of Bob Marley, reggae had open arms to everyone who loved it, although that began to change when the dance hall genre [a more sparse and hard-core type of reggae] came around. There's a tradition of producers who weren't Jamaican that goes all the way back to Chris Blackwell [who released many of the early reggae hits on his Island Records lapel]. In fact, some of the famous early Jamaican producers like Leslie Kong were Asian, so you don't have to be of that race to produce that music.

There weren't that many people around at the time, so I became sort of a go-to guy for labels that wanted to release reggae music. I began to know the studios and how to work down in Kingston, which is such an amazing place to record. If you need a percussion player, you can sort of yell out the window and there'll be a line of guys ready to do it, and they'll all be great and affordable. [Laughs.]

Jamaican studios have a reputation for putting out these great-sounding records with the most marginal equipment. Have any idea about that?

They pushed their gear as hard as they could and got every ounce of sound that they could get out of it. I did a live session at Tuff Gong where I wanted to use a real Hammond organ to get a “bubble” [style of playing] going, and along with the organ comes a guy who was their Hammond organ guy. That was his only job—to keep that Hammond working—so there’s a reverence for some of that equipment that you don’t even get here sometimes.

Some of the studios are better than you think, though. Tuff Gong recording studio has an amazing-sounding room with an SSL console. Studio One and Federal are both pretty good. There are lots of them. I’ve heard that there were more studios per square mile than anywhere in the world for a while, and they all had their own flavor. Now it’s just like here, where everyone has a studio in their house with Pro Tools, but there are still a lot of commercial studios in Jamaica.

How much have you recorded in Jamaica?

Probably around 20 times, but I’ve never totaled it up. I’d do parts of records here, but to get the real flavor, I’d have to go back down there. For example, I did a record with Willie Nelson where Willie was doing his country stuff but with a Jamaican flavor. Another producer started it, but it never sounded right. I think one reason was that no one took it down to Jamaica. The album had been cut up here with Jamaicans that I knew, and they’re really good players. But it just didn’t have the full flavor that it needed, and you could only get it down there.

Believe me, taking multitrack tapes down to Jamaica and back is not an easy job! [Laughs.] And their tape machines run at different speeds down there because the power is different, so you have to jump through hoops just to get things in tune. Then there’s the ever-present brownout or blackout, where you’re finally getting something going and then everything in the room goes dark.
Are you tracking the entire band?

Yes, except in the case where I was using a drum machine. I’d get Sly [producer Sly Dunbar, half of the famous Sly and Robbie rhythm section] to come over, and he’d just sit there with the original Linn drum machine and pound out a beat. It would be a single 2-bar phrase that he’d slowly add to. There’d be about 15 guys in a control room that’s meant to hold 6, just listening to him making this beat, with everyone stoned out of their box. That’s definitely a different kind of vibe than you see up here.

Would you rather track the entire band, or just go for a good drum track and replace everything later?

I guess the key phrase is “It depends.” Toots’s band is rock-steady. Their tempo does not budge! Why wouldn’t you want to cut with that band? They’re just incredible. I know that Sly and Robbie have the same thing going.

What’s your preproduction like?

Nonexistent. With Toots, we’d get to the studio, then there’d be the ritual hour and a half with his “chalice” [pipe], and then you’re on. You just better have your shit together, improvise, and go quick after that.

It’s mostly your preparation then.

Yeah, I would do my homework and come up with some grooves and different things in my head, but I would always defer to the masters in the room who had not only the musical knowledge, but also the music-history knowledge that was way beyond mine. I’d always trust them, but I’d have a few other ways ready to go if needed.

Do you have any secrets for keeping everybody happy?

That’s a very subtle thing. I’m certainly not the best at it, or I’d be more famous as a producer. In the larger scheme of things, the tricks that you’d employ with Jamaicans are no different than what you’d employ with anyone else. One of the tricks I like is to record a bunch of tracks, get the artist out of the way, and put it together after the fact. You don’t want to burn out an artist, and some of the first takes will be the best anyway. I’ve had complete disasters with Jamaicans, trying to work a way I thought was best where it just didn’t work at all, but you could really say the same thing about any kind of music.

The only thing that you could probably do in Jamaica was make the excuse that you didn’t understand what they were saying [which is the case a lot of the time], so you have an excuse in your back pocket because there is a language difference.
How long do the sessions there normally last?

You don’t see the normal amount of tracking and re-tracking that you see in pop stuff. These guys know when they got it, so there’s a lot less second-guessing. When I was working with Ben Harper for the True Love record, we had players from Ben’s band and the rhythm section from Toots’s band. After a take, Ben’s guys wanted to go into the control room and judge it, but Toots’s guys just said, “That track done, mon. It finish!” And they were right.

That makes your job a lot easier.

Yeah, it does. It’s a real pleasure working with those guys, but let’s face it, they’re playing straight-ahead grooves with little variation. But what a groove!

Generally it’s a day of tracking and then another day of overdubs and stuff, so in that way it’s pretty much like any kind of session. That being said, Jamaican musicians have a love of recording, and they don’t mind doing a lot of takes if necessary.

Do you have any techniques for getting the best performance out of singers?

Number one, before you ever say anything to a singer or touch that talkback button, really think about what you’re going to say so it isn’t taken the wrong way. I say that from experience, and I still screw up. You’ve got to really get in their head to feel what they’re doing, what they’re trying to go for, and what they’re dealing with.

Sometimes you really have to be aware of what they’re listening to in the phones, because if there’s something that’s competing with them in the track or throwing them off time-wise or pitch-wise, you have to get rid of it. They won’t think of it because they’re trying to connect with their part, so it’s up to you.

A lot of things that I’ve done in the past when producing non-Jamaicans wouldn’t apply to Jamaicans, like giving sort of acting tips to help a singer get into the mood of the song. Something like, “Pretend you just saw your boyfriend with someone else and really sing to him,” to get them into the emotion. That technique wouldn’t work with Jamaicans. They’d take it as being disrespectful.

What do you look for in an engineer?

In Jamaica you don’t have a choice, since you get whoever’s with the studio. You just have to hope that they don’t screw up. I’ve had some real disasters. In the early days of Pro Tools, I’ve gone home with a hard drive with nothing on it because the engineer saved it to the wrong drive. Pro Tools and Jamaicans didn’t mix for while. [Laughs.]

But generally, it’s the serendipity of working with a true recording master. When you work with an engineer who really understands what he’s doing, it makes recording such a pleasure. It’s pretty cool when you work with a guy who says, “Wait a minute. I’ve got just the mic for this,” or “Wait a minute. Let’s compress it after the input,” or some other suggestion that just works perfectly for the
situation. I’m an old dog so I’ve seen it all, but I’d still never trust myself to put it all together, which is why people hire engineers who know this stuff.

Would you mix down there, or come back here to do it?

I’ve done both. It kind of depends on the project. Even though there are now lots of Jamaican mixers who live in the States, it still comes down to a flavor that is unique to Jamaica. Don’t forget, Jamaicans invented dub and are the true originals at dropping out sections of a song. So if you want to get something like that right, that’s where you have to go. Other areas where Jamaicans are masters are with delays and delayed feedback. They have a style and it’s part of their language, as opposed to here where it isn’t. So if you had a record that needed that flavor, you’d better mix down there.

It’s funny because low end is such a critical thing in music, and just turning up the bass is not how to do it, obviously. Trying to get a guy over here that understands the Jamaican thing, I’d say forget it; you’d have to go down there for that. But most of my records didn’t need that pure dub sound.

Would the mixes go faster?

Sometimes, but usually it’s the same tedious process as everywhere. In the early ‘90s, studio time was scarce and guys would work around the clock, so there were places where you could not leave the mix up overnight like they do here.

How about mastering?

I never did master down there. Most of the stuff I’ve done is hybrid, which is why I’ve always said, “If you want a 100 percent Jamaican sound, then you don’t need me.” So my stuff was always mastered for U.S. and European audiences.

One of my philosophies in producing any kind of music, either to my credit or discredit, is that I always want to do something a little different. So with Jamaican music, I tried to combine it with something else. For example, we put the Wailing Souls on a house track. It wound up getting a great deal with Sony and a Grammy nomination, but it wasn’t pure reggae. For those early Wailing Soul mixes, we sent all the dub stuff down there to mix, and for mastering as well.

What’s the best piece of advice you’ve ever been given?

Most advice that applies to music is universal. I still think the best one I’ve heard is something that I think [legendary country producer] Billy Sherrill said, and that’s, “The most important word in music is the word next.” Meaning, you’ve got to know when to move on. Don’t spend two years mixing a song, or if you’re overdubbing and not getting the part, maybe there’s not an overdub needed, or you have the wrong guy overdubbing it.

I know that Denny Cordell went through 18 bass players trying to play the part on [Procol Harem’s] “A Whiter Shade of Pale,” which he produced. His point was that you know in the first two
minutes whether the guy is going to get it, so you might as well move on and get a new guy right away if you think he won’t work out. That’s a nice piece of advice I’ve always tried to keep in my head. Thanks, Denny!
Beginning his career as an engineer and mixer, Gareth Jones soon made the transition up the ladder as a coproducer with superstar band Depeche Mode. While producing such eclectic acts as Erasure, Can, Madness, Devo, Tackhead, and Nick Cave and the Bad Seeds, among many others, Jones’s high-tech, no-nonsense production approach has won him acclaim and admiration from all corners of the industry.

**How did you become a producer?**

I had a hit with Depeche Mode as an engineer, so I negotiated a coproduction with them. I didn’t know very much about production at that stage, as I was very junior, but they were gracious enough to include me on the production team, so that was my first toe in the water. I was not responsible for the whole production in the way that I am today, but it gave me an opportunity to develop my production skills later as the lone producer with other bands, because I’d been a coproducer on some famous records.

When I look back on my starting out in the production world, I was a glorified engineer who the artist respected enough to invite me to be a producer. It was a very long but ongoing learning curve for me because I had to learn to take care of the schedule with the artist, work with the artist in preproduction, keep them in a very emotionally creative space, and attempt to get records finished on time and on budget. I realized that there was a lot more to the producing job than being taken seriously by the artist and making good recordings.

**Is there a technique that you have to do that?**

I think so. It’s not rocket science, but what I try to do now is to work as fast as possible. If I’m lucky enough to be working with a full team of an engineer and an assistant, I make sure that everyone is working fast, because over the years I’ve developed a lower and lower boredom threshold. [Laughs.]

I want to keep recording and doing new stuff, and I feel that most of the artists I work with really appreciate that. So I don’t take any time to technically fiddle when the artist is around. I try to keep the whole process as transparent as possible, so they can set up and get working quickly.

The other thing is that with younger artists, I try to schedule things so the sessions are not open ended and so everyone knows that we start at 12 noon and work until 8 or 9, and in that time we’re working and creating. That means that we don’t waste time in the studio, which I think the artists enjoy.

When I started my career, I know that a great deal of time was wasted in the studio because we were all learning and were less experienced. Now when I’m in the studio, I just want to get music done as fast as possible and keep a flow going. So if I suggest that the artist try an idea, they know
that we’re only going to spend 10 or 15 minutes on it and that we’ll know by then if it’s working or not, as opposed to trying an idea for five hours. So I like to work as fast as I can.

What does that mean in terms of the amount of time you spend on a project?

It’s so budget-driven that it makes them all different. Right now I’m working on a project that we’re probably going to spend a month on because they came to me with recordings that they made at home. We’re going through the demos and keeping the good bits and replacing the rest.

If I work with an artist where there’s a higher budget, we might spend a really long time. I did a project last year where I sort of did “additional production,” where I produced the vocals and mixed it, and that was an extended process. We took blocks of time over 18 months to get it right because we were inventing a sound with the artist. So time scales are really variable in my world, which I really pride myself on actually. I enjoy the luxury of going into great detail and spending a long time on the project, but I also enjoy getting in the studio and going really fast. The record I’m making at the moment is very instinctive, because we really don’t have the time to deliberate too much. We’re just going for it, and that’s very creative sometimes because there’s not too much thinking going on. It’s very exciting because it shuts off all the monkey chatter [laughs], and you just react to the moment.

What attracts you to an artist?

Their energy, their songs, their personality in a meeting. I’ve been lucky in that after 30 years I’ve got a discography that makes a certain kind of artist gravitate towards me, and that kind of fits with my sensibilities.

Before we commit to work together, it’s really important to get to know people a bit—and that’s a crucial time, I feel. If a band has a recording budget, they’re out there meeting a bunch of producers, so the first meeting with me will be one of a number of meetings that they’ll be doing. If we like each other, every subsequent meeting we’ll chat in more detail and make some notes and listen to some things and get some ideas where we want to go with everything. After that we’ll have sort of a personal relationship moving already, so we’ll go into a rehearsal room.

It’s great to be able to see a band live even before we go into rehearsals, but that’s not always possible. It gives me a better picture of what they’re trying to do.

What are the budgets that you’re working with like these days?

Budgets have shrunk massively in the past 20 years. Budgets of the projects that I’m working on range from £25,000 (about $41,000 USD) to £100,000 (about $165,000 USD). It’s very different, depending upon if they’re an established band or a total newcomer that I’m keen to work with, so I work across a big range of budgets.

I just want to make it clear that I’m not a hit maker. I’ve been lucky to work with some great artists and had the privilege of making some great records with them, but I’m not a producer with a designed sound where people come to me to give them a hit. That impacts the budgets I see.

The sheer power of the technology has enabled a lot of us to do projects that we ordinarily couldn’t do, because now we don’t have to do them in expensive facilities. Actually, the studios are really
suffering because they’re the next down the food chain. I’m not booking studios like I used to. I may
only book a studio to track drums for a few days, then after that I’ll work in a little production room
somewhere.

Has your deal significantly changed with the budgets?

For me, it means that I’m making less money because the royalty stream is not as rich. I’m not in a
position where I can say, “The royalties are not going to be as much, so I need a bigger advance,” so
that’s something that has had an effect.

I’ve been looking at different types of deals with my management that involve publishing because,
in fairness, it seems almost the only way to make some projects work. I can see that being a fair
argument because it’s the only part of the revenue stream that’s still available, so some artists will
have to share out. Traditionally, a portion of the publishing was dedicated to arrangement, and
obviously part of my job is helping the artist arrange their tunes both musically and sonically, so
sharing fits in that sense. Of course some artists will say no to that. Negotiating deals is all about a
power hierarchy in that if you’re in a powerful position, you can get a better deal. If I’m approached
by an artist who’s already had some measure of success, they’re less likely to want to give me a piece
of their publishing stream than if I’m working with a new artist who hasn’t broken through yet.

How long do you like to have for preproduction?

I’ve really come to value preproduction, and I like to spend a couple of weeks in the rehearsal room
with the band before we go into the recording studio. I think that pays great rewards. One of the main
reasons it’s so productive is because we all get to know each other in a relatively low-stress
environment, so when we get into the recording studio, we all know where our strengths and
weaknesses lie and there’s already a level of trust that’s been developed with the band. In the studio,
that band is more willing to take what I’m saying seriously if we’ve done a lot of preproduction,
because they’ve worked out that some of my ideas are worthwhile—and that’s really important.

What I like to do during preproduction is to make a very small multitrack recording on my laptop to
help work on arrangements and sounds. We make sure that everyone listens to everything, and we
hone arrangements before we get into the studio. That’s a big time-saver, but I feel it’s the
psychological foundation that’s so important. It means that we can go a lot faster, because we all have
a game plan.

How long do you take to track basics?

In the past few years I’ve developed a new approach to tracking. What I do now is split in half
whatever tracking time we have available, and track everything in the first half. Then we sit down and
listen and decide what we want to retrack. I find that to be really productive.

For a long time I would track one song after the other until they were all done, and then build on
that. Now I try to give myself and the band an opportunity to revisit every song once we’ve tracked
everything because—even with a young and inexperienced band—after five days in the studio, they
start to feel like it’s their own space. They’re totally down with how it sounds, and they’re
comfortable with the headphones. Once you get to the stage where everyone is settled into the studio, I find that a band can do their best work and can usually do a good take in ten minutes.  

So for me, the second half of tracking is really important, because it’s so often at that point that we all listen and go, “Oh, that one can be better,” or “Let’s do that one with a different snare drum,” or “That bass guitar worked really well in that tune. Let’s try it on this one.”

It was a bit of a breakthrough when I realized that I could do it that way. Bands love it and I love it, too, because we realize that what we’ve recorded is not so precious. That second half is when they can really start to deliver. We end up keeping some of the stuff from the first round of tracking, but a lot of it just gets done again.

So I changed from struggling to do a track a day to encouraging the band to do two or three tracks a day.

How do you manage the budget? Do you get the money and pay it out yourself?

Sometimes, but other times the label will be billed directly. That’s how it works on the bigger-budget projects I work on, which I’m happy with, actually. We’ll go through rounds of spreadsheets where we’ll tweak everything, but everyone can see how the budget is being spent. I’m happy with that, because then I don’t have the responsibility of dealing with the larger sums of money. I pick up my advance from the record company, and that’s it.

It’s become very important now to get things done on time and on budget, which wasn’t the case when I started. That’s one of the reasons I feel I’ve grown and developed so much (besides musically and psychologically), because—purely from an administrative standpoint—it’s so important to deliver. I think that’s now one of my skills: to deliver on that commitment. I think people appreciate that, especially these days.

Do you engineer your productions?

I do a mixture. If I’m doing a tracking session, I always hire an engineer and an assistant, because I find that it’s too much to deal with everything and get it all right. Obviously, I’m a producer with an engineering background, and so I will not hesitate to go move a mic or something if necessary. But basically, I want someone to run all that stuff so I can concentrate all my energy on the band and their performance and sound. Quite often I might be in the studio with the band wearing headphones rather than being in the control room.

I like old-fashioned tracking sessions where the entire band plays together, and I try to do that as much as I can. As budgets continue to decrease, we might have to start making the kind of records where instruments are recorded one at a time again, because we won’t be able to afford the large studios like we could in the ‘80s. But as far as I can, I love having the band play all together, and I try to do that so I get a real performance out of everyone. I’d rather have everyone commit to a performance rather than having to replace everything but the drums later.

I can’t stress enough that this is all budget dependent. Quite often in the overdub phase, I might just have an assistant, or I might even do parts of the overdub phase alone, depending on how much work I feel there is to do and what the allocation of the budget is like.
What techniques do you use for getting the best performance out of musicians?

I try to build a safe atmosphere, a focused atmosphere, a creative atmosphere—one where the technology is always functioning so things are not overly complicated. I don’t enter into clever manipulations of the artist to get them to perform. I just try to be open and let them do their thing, and that seems to work really well.

A lot of it for me is no-nonsense facilitation of the technology side, so that everything is as seamless as possible and the band can just record with no undue waiting or tech frustrations. I think that’s really important. Also, it’s developing an atmosphere of trust, so people feel that it’s okay to make a mistake and we all feel safe with each other.

I really find I have to enjoy the time in the studio anymore. It’s really important to me. If I’m enjoying it, I’m not stressed. And if I’m enjoying it, there’s a really good chance that the artist is enjoying it, too.

Do you use a mixer, or do you mix your productions yourself?

On some records that I produce, we (the band, the record company, and myself) decide that someone else is going to mix the project, and that’s great. I’m very happy for other people to mix it. But if I have the choice as a producer, I’ll mix it because I enjoy it and it’s part of my skill set. I feel that I can realize the vision of the artist easier if I do it myself. While I find having an engineer for tracking and overdubs useful if the budget will support it, I find that when it comes to mixing that there’s a direct interface between me and the music. So I just do it myself unless we have a plan to get someone else in.

How long does it take you to mix?

A song a day, leave it up overnight, spend a couple of hours tweaking in the morning, and move on. I make sure that we have a bit of time at the end so that we can revisit the tracks, and that seems to work well. We don’t have time to get bored, and there’s usually lots to do. That’s one way of working.

When I mix in the box (which I really like doing, because everyone wants total recall these days), it’s hard to say how long it takes because I try to get good rough mixes on everything, then I just keep revisiting the tracks until they’re done. I love it because, as a mixer, I’m not one of these geniuses who hits a bull’s-eye every time. Sometimes my first mix will be good, but very often the mix really comes to life when I revisit it.

How do you choose a mastering engineer or facility? I’m flexible. I’m very happy to suggest mastering engineers, but very often it’s a record-company decision and I just go with that. It’s not worth me making a fuss about. I don’t make much of a fuss about anything any longer. [Laughs.]

What’s the best piece of advice you’ve ever received?
Never forget the importance of the demo or the song.
Based in New York City, the versatile Mark Plati learned production the old-fashioned way, starting first as a musician and songwriter, and then later becoming an engineer. With a long list of diverse credits that range from a host of eclectic unsigned acts to the likes of David Bowie, The Cure, Robbie Williams, and Natalie, Mark has an “open-mind” studio philosophy that has kept him consistently on the cutting edge of modern music production.

How did you become a producer?

It was a natural progression from my beginnings as a musician in grade school. After high school I became attracted to the record-making process, and I began engineering and mixing in college while playing in cover bands. It was only natural to combine the two. And, after being in enough engineering and mixing situations, you sort of naturally make the transition after a while.

What was your first production project?

My first production was with a band from Dallas called Daughter Judy. I went to Dallas to be an intern in a couple of recording studios and on a 48-track remote truck. In exchange for my free labor, I’d assist and learn from the in-house and freelance engineers. Also, I could have all the studio downtime I could eat, so I produced and engineered an EP for this band in exchange for being able to crash on their couch for a few months. I actually listened to it last week, and it doesn’t sound too far off from a lot of what I’ve done since, for better or worse.

Where did you learn the most about production? A particular project? A mentor?

I learned a lot from watching everyone I came in contact with: producers, engineers, artists, gophers, mixers, musicians, assistants, etc. Again, for better or worse—sometimes watching the tiny, or huge, mistakes of others is the best teacher. I suppose the biggest leap for me came when I began working for producer/remixer Arthur Baker at his Shakedown Sound studios in NYC in 1987. It was a combination of trial by fire and a 24/7 schedule—total, relentless immersion into the craft in an area of music where I had very little experience. It was an amazing time. I witnessed a slew of production and mixing ideas and techniques there, and I got to work with a wide variety of material and people. Many notable artists, producers, engineers, and musicians passed through those doors. I learned a lot there, much of which I still practice. I also witnessed plenty that I’d never repeat.

What attracts you to an artist?
An artist is somebody who has something to say, and who lives and breathes what they do. They’re on a journey. When I sense that, I know I want to be a part of it.

**What do you see that the new acts you produce have in common?**

They are more knowledgeable about the industry (or what’s left of it) as well as the mechanics and technicalities of record making, given the laptop revolution and miniaturization of the recording process. Anything and everything is ultimately useful, so it’s no surprise that some of their [Apple] GarageBand ideas can make it to the final mix. On the downside, all of that computer tinkering can lead to less-accomplished musical chops—practice time gets sacrificed for PowerBook time, since there are only so many hours in the day.

**What are the budgets that you’re working with like these days?**

Tiny! A lot less than they used to be ... the ‘90s are indeed over. A number of projects are now funded by management or by third-party investors, with the aim to own masters and then license them however they can—through TV, films, ads, ringtones, etc. If I didn’t have my own space, which I can discount accordingly, a lot of projects wouldn’t happen. That would have been unheard of a decade ago.

**Has your deal significantly changed with the budgets?**

Yes, because people are figuring out new and unique ways to compensate me aside from the traditional advance against royalties. I still do a fair chunk of work in the traditional manner, but the shift continues to grow toward a new model.

**Do you have a preproduction process?**

I think preproduction is the most important phase of a record. It sets the tone for everything, mostly deciding crucial things like song selection, structures, tempos, getting the gear up to snuff, and figuring each other out on a musical and personal level.

**How long do you like to have for preproduction?**

A week is great, but realistically at least a few days before recording begins, provided there’s a lot of discussion over email, sending MP3s. Different projects require different degrees of preparation or rehearsal.
Do you have any tricks that you use during preproduction to get to know the artists better?

I don’t think that I really have anything in the line of tricks. All I usually do is reveal myself to the artist in the sense that I’m as obsessed with turning over every rock in search of answers as they are. They kind of get that pretty straight off the bat, and that’s usually enough of an icebreaker. Really, it’s just about revealing my love of the process, and my irreverence for pretty much everything else.

Do you have a secret for keeping everyone in the studio happy?

I think it’s down to empathy, as in, “What would I want the producer to be doing if I was the artist,” and going from there. So, it’s not really much of a secret if you picture yourself riding shotgun as opposed to driving, and not wanting some sort of total nut job behind the wheel. I make sure everyone feels like they’ve had a chance for their voice to be heard and their musical ideas to be pursued, even if it’s not my cup of tea. It’s a subjective process, and I’m the first to admit I don’t know everything and I can’t tell if even the strangest, least obvious idea might lead us somewhere until we go there. You don’t know until you try it. That seems to be the only absolute.

Do you have any diplomatic secrets?

Knowing when to say something—timing really is everything. Also, maybe more importantly, knowing when to keep my mouth shut.

What do you look for in an engineer?

I usually engineer a lot of what I do, though over the past few years I’ve been in the habit of having an engineer for major tracking sessions so I can concentrate on the bigger picture and not watch the meters and listen for rogue noises. I don’t really have any specific criteria other than making sure an engineer is a good personality match and his process, like mine, is mostly invisible. It’s cool to have somebody I’m not that familiar with, to see what they add and what gear they use, so I can continue to add to my own bag of tricks.

How long do your sessions normally last?

Anywhere from 10 to 12 hours a day. It’s tricky to say, as every project is different depending on the level of skill of the players, how many songs we’re doing, what sort of sonic makeup we’re looking for, and the amount of searching we’ll need to do. I’d say it takes around three to four weeks to complete an album, on average.

Do you have any tricks for getting the best performances out of musicians?

Not really—it’s pretty much all common sense stuff. One advantage to being a musician is knowing what it feels like to be at the other end of the red light, so I get it.
I keep my end of it as invisible as possible. Make sure they can hear themselves well—decent headphones can make or break everything. Be mindful of the arc—that there will be a period of acclimation and feeling their way through a song, and then they’ll crack it. But record everything, as one never knows if a first take will be a magic interpretation, or a warm-up will yield a happy accident. Memory is cheap, so there’s no reason not to hit that “3” button.

**Do you have any tricks for getting the best performances out of singers?**

Make sure they sleep enough and stay in good spirits. Don’t save all the vocals for the end—that always creates a pile of stress. Again, catch the arc. This whole thing is like surfing: when you feel the wave coming, make sure you’re on it.

**Do you use a mixer other than the engineer you used for recording?**

I generally mix everything I do unless there is a predetermined idea to have the project go through another set of ears at the end. I tend to have an idea of where I want a project to go musically and sonically, and a lot of that can be mix dependent.

**How many alternative mixes do you do?**

Aside from the usual suspects—more vocal versions, playback tracks—I do tons of stems so I can make any sort of edit or remix later without having to do a full-on recall, if I can help it.

**How do you choose a mastering engineer or facility?** I’ve been really happy with Sterling Sound the past several years: Greg Calbi, UE Nastasi, George Marino. Between the three of them, I can get whatever I need.

**What’s the best piece of advice you ever received?** When I was an intern in Dallas, for one week I assisted an engineer named Larry Wallace. Larry was the first hot-dog engineer I’d ever worked with. He was totally passionate about his craft and traveled around the country freelancing. He’d use duct tape and spit to make a tape machine work. He’d stand on his head to keep the session going forward if he had to. He said, “If you can make a career between these two speakers, count yourself lucky.”

And I do.
What was your first production job?

I was fortunate in that Jamie Cohen, who was a very influential A&R person in the ‘80s and ’90s, gave me a chance to make the first non-new-age record for Private Music with Kristen Vigard. Kristen was this wonderful singer who was very well known in the local L.A. music scene. I will never forget Jamie, because he took a chance on me and really gave me my first shot. I think at that point he was a risk taker, so he gave me a chance and I passed the test.

One of the reasons I don’t participate in the pop world is that you always write and strive for a hit, and back then you did it even more than now. Kristen and I made this record with all local musicians that nobody had really heard of at the time, like the guys from the Red Hot Chili Peppers, Fishbone, N'Dea Davenport from Brand New Heavies, Amp Fiddler, and Bronx-style Bob. The Peppers had a record deal and so did Fishbone, but they were just bubbling under. They were all friends of Kristen’s. It was a fantastic record and critically acclaimed, and that’s what helped me become a producer. It was not only a record that I feel was ahead of its time because of the unusual instrumentation we used, but it also allowed me to become familiar with a lot of local musicians who went on to become quite successful. That spawned a lot of other things and allowed me to be known as a “local underground darling,” as somebody called me.

What did you learn specifically from that project? When you’re a new producer, there’s something that you have but can never get back, and that’s being fearless. That’s one of the reasons that I don’t participate in pop music or listen to those records—too many people refuse to be fearless.

What do you mean by “fearless”?

Too many producers are too cautious in the steps they take because they want a hit so badly. In any genre of music, when you hear a new record that sounds fresh and new and daring, there’s an element of being fearless of the consequences by the producer. When I made that first record, I didn’t know or care about a hit. I was working with great musicians and trying techniques that were new to me and were kind of fresh at the time. That’s when I learned how to be fearless and just make good music and
You insinuated that you lost that after that first record.

I wouldn’t say that I lost that because I still pride myself in making that kind of record. I try to be fearless and I try not to chase hits and I try not to follow people, but it would be a lie to say that we’re not all influenced by someone.

I think that this is a great market for young producers who haven’t done this before. They have an equal if not better shot than most established producers. Anybody can have success today very quickly, where before you couldn’t accomplish that. Unfortunately, most established producers today are so scared and lost that they’re trying to manufacture success and not taking chances. Not everyone, of course, but a lot of them. It’s discouraging, because you can hear it in the music. That’s why a lot of these records sound the same.

Did you have a mentor?

I did. My mentor was Susan Rogers, who got her chops doing all the engineering for Prince. She dated a dear friend of mine named John Saccittii, who was a tech at Westlake (where I got my start). I was a huge Prince fan, and Susan was kind enough to sort of take me under her wing. I consider her a mentor early in my career. Later, when I was lucky enough to engineer and mix for Trevor Horn, he became a mentor as well. I learned an awful lot from him on how to make records.

What did you learn?

What I took from all those years working with Trevor was that the magic happened in the recording, not in the mixing. During that period in time, everyone held to the myth that it all happened in the mix. You hire a big mixer and a big studio, and you spend 15 to 20 hours mixing all day. With Trevor, the assistant engineers would often mix the records, and they would just throw the faders up. It all had to do with the charm, the time put into recording, and the technology. I was fortunate to work with Trevor, because I was technically savvy as well as had chops as an engineer and as a programmer. So I was extremely at ease with technology like Euphonix, Syclavier, and Fairlight, and samplers and drum machines.

In all the things that we did, the instrumentation was how Trevor wanted to hear it while we were recording it. We would edit and manipulate and assemble the master in a way that was exactly how Trevor wanted to hear it, so when it came down to mixing, they were easy mixes and the assistant engineers would just throw the faders up. That’s really what I learned. He was way ahead of his time sonically and production-wise with those impeccable sounding records. People will be studying those records for years to come. He always takes chances and seems to always make the right decisions. I was honored to be part of that team for a short while.
I hadn’t realized that you got your start at Westlake Recording Studios.

Yeah, I grew up in the Bay Area and went to the College of Recording Arts for one year. I was probably the least likely to succeed. [Laughs.] I didn’t have clue. I moved to Los Angeles when I was 19 and didn’t know a soul, and through a friend of a friend of a friend, I got a job at Westlake Studios. I was the janitor in the morning, a runner during the day, and then I would just hang out for free at night learning from the techs, the engineers, and the musicians. I didn’t have girlfriends or dates; I just devoted my life to the studio until I learned what I needed to and met enough people.

Eventually, I became a second engineer there for a short time, and then I worked around L.A. for a while. I was friends with Wendy and Lisa [from Prince’s band] and got to engineer for them, and I think I must’ve met Jaime [Cohen] through them, and that started the next phase of my career.

What attracts you to an artist that you want to work with?

I want an artist that sounds fresh to me. I will tell an artist, “If you want to make something that’s daring, then I’m your guy.” But I’m also the first person to tell an artist, “I’m the wrong guy for you,” if they want a direction that doesn’t feel comfortable to me.

The artist also has to be a good singer, because I refuse to work with one that’s bad. That’s why I don’t do certain types of music; it’s too easy to get some mall girl who looks the part and just phones it in. It could be anybody singing, and that’s just not my style. I’m also interested in working with artists that like what I do. What I don’t like is when the artist is the producer.

What are the budgets like these days for the projects you’re working on?

The budgets are lower, and they’re not going back up. Once you get someone for a discounted rate, that’s it. That’s why we’re all in survival mode. I’m lucky because I do a lot of things. I’m an artist, I do some film work; I’m not a one-trick pony, so I can survive.

I’m finding that the budgets are healthier from third parties, like when a new artist has his family fund a project, or he’s a trust baby, or he has an investor. I don’t do many label projects anymore. I do a lot of eclectic indie records, and those budgets are always small.

Also, people are constructing records in different ways. Artists are bringing in a producer towards the end to help with vocals or just the mixing, so it’s not like it used to be, where you did a record from scratch.

How has that impacted your deal?

I don’t care about points anymore. I want to get paid up front because the problem is that nobody sells records anymore. If I get an artist that wants to give me five or six points, I just tell him that I don’t want any points, because how are you going to track the sales and get your money afterwards, and is he really going to sell any in the first place? Probably not, so I want cash up front.

I also demand 50 percent before we start. You have to now, because it’s too easy, especially in this business climate, that the project never sees the light of day. [The client runs] out
of money or something unforeseen happens, and you never see a dime. I’ve had to threaten not to work until I got paid a couple of times, and I have no problem with that.

What’s your preproduction like?

It’s intense and goes pretty deep because most of it happens in the control room. Most of my records are technically savvy, and they evolve in the control room in terms of programming. It’s hard to say how long it takes, since you’re recording and mixing as you go these days.

Do you do any prep work with the artists just to get to know them and find out their influences?

Sure. I’ll sit down with the artist and have them play me their songs stripped down. Then I want to get educated as to what they like and don’t like about what I do and about who they’re listening to. I want an artist to tell me, “I really love what you did on this record, but I really don’t like what you did on this one.” Then I can say either “I had nothing to do with that,” or “That’s too bad, because that’s what I was looking to do.” [Laughs.]

I don’t want to be the artist. This is about them. Their name goes on it. I’m only a tool or vehicle for them.

Are you managing the budget? Do you get the entire budget and pay all the bills?

That’s usually how it happens, although I don’t often like that. I actually would prefer if the artist paid any vendors directly so I would have nothing to do with it, but often it comes to me and I pay it out.

Do you have a secret for keeping people happy in the studio?

Humility can never be underestimated. I also think it’s important to not talk music 24/7 in the studio, just to keeps things loose.

How long do your sessions normally last?

I’m an early riser because I have kids at home, so I like to start early and end early. I’ve got to be winding down by 11 p.m. so I can leave the studio by midnight. You don’t need to work really long hours these days, because you can accomplish a lot more with technology that helps with your decision making.

Do you have any tricks for getting the best performance out of a musician or vocalist?
I wouldn’t say that there’s a trick other than making them confident and making them believe in themselves. I also like to record low-stress demos with people and keep the performances, because some inexperienced singers get scared when they think it’s the real thing. It’s too much pressure.

**How long do your mixes take?**

I mix as I go, so my mixes are easy. But I try to do no more than a song a day.

**Do you do alternative mixes?**

Not any more, because it’s so easy to recall stuff if you’re mixing in the box. My standard now is just a vocal mix and an instrumental.

**How about mastering?**

I don’t take great value in mastering, because I’m very confident about how things sound coming out of my room. That being said, I work a lot with Chris Bellman at Grundman Mastering and, more recently, with Dale Becker at Bernie Becker Mastering. They’re both very good, and so it’s just really a cost thing, since Grundman is sometimes outside of my price range on some small-budget projects. Unfortunately, there are so many mastering guys that think that just because they can buy the gear that they have to use it on your mix—and often, you don’t. You want a mastering engineer to be able to tell you, “You know, it doesn’t need much.” There’s a lot of engineer’s that swear by their mastering guy because he saves their mixes, but I’ve never had a record where I said, “It came together in mastering.”

**What’s the best piece of advice you’ve ever received?**

It came from Leeds Levy who ran Chrysalis Publishing when I signed there. I was fortunate to have two co-writes on the big Seal record *Seal II*, which went on to sell about 10 million units. When it came to my publishing company credit on the CD, it was called Povy Lu, and he said, “Why did you do that? If you had named it Carmen Rizzo Music, your name would’ve been on 10 million CDs.” And I said, “You are so right!” Since then I’ve changed my publishing name to Carmen Rizzo Music, because you have to brand your name. That was the best advice I ever got.
**Glossary**

**0 dB full scale:** The highest level that can be recorded in the digital domain. Recording beyond 0 dBFS results in severe distortion.

**A&R:** “Artist and repertoire.” An A&R person is a talent scout at a record label.

**advance:** A portion of expected royalties or fees paid before the royalties or fees are due, usually paid upon signing a contract and completion of the project.

**airplay:** When a song is played on the radio.

**articulations:** The way a note or phrase is played or sung.

**art:** A creative endeavor that you do for your own personal satisfaction.

**attack:** The first part of a sound or phrase.

**automation:** A system that memorizes and then plays back the position of all faders and mutes on a console.

**AutoTune:** A hardware device or plug-in used to adjust the pitch of a vocalist.

**basics:** See basic tracks

**basic tracks:** Recording the rhythm section for a record, which may include all the instruments of the band, but may be only the drums depending upon the project.

**baby band:** A newly signed band that hasn’t released a record.
**bit rate:** The transmission rate of a digital system.

**book rate:** The advertised rate of a recording studio or rental.

**bpm:** Beats per minute; the measure of tempo.

**bridge:** An interlude that connects two parts of a song, building a harmonic connection between those parts.

**bottom:** Bass frequencies, the lower end of the audio spectrum. See also low end

**boutique gear:** High-quality, hand-built musical or audio gear with a limited production run.

**build:** Usually a one or two bar section of a song where the volume builds from soft to loud.

**buy-out:** You only get paid for your initial work and nothing thereafter.

**chorus (in a song):** The refrain of the song following each verse that usually contains the hook.

**chorus (electronic effect):** A type of signal processor where a detuned copy is mixed with the original signal, which creates a fatter sound.

**click:** A metronome feed to the headphones to help the musicians play at the correct tempo (see chapter 8).

**clip:** To overload and cause distortion.
**clipping:** The point where the input electronics overload because the audio level is too high.

**competitive level:** A mix level that is as loud as your competitor’s mix.

**contractor:** The person in charge of hiring musicians for a union session. Occasionally non-union dates use nonunion contractors.

**converters:** A/D and D/A converters (see both A/D and D/A).

**cross-collateralization:** Royalties from one agreement used to cover the losses or advances of another agreement.

**cue mix:** The headphone mix sent to the musicians that differs from the one that the producer and engineer are listening to (see chapter 8).

**D/A:** Digital to Analog Converter. This device converts the digital 1’s and 0’s back into an analog waveform.

**DAW:** Digital Audio Workstation.

**delay:** A type of signal processor that produces distinct repeats (echoes) of a signal.

**digital overs:** The point beyond “0” on a digital processor where the red ”Over“ indicator lights resulting in a digital overload.

**double:** To play or sing a track a second time. The inconsistencies between both tracks make the part sound bigger.
**downbeat:** A session’s official start time

**feel:** The groove of a song and how it feels to play or listen to it.

**flanging:** The process of mixing a copy of the signal back with itself, but gradually and randomly slowing the copy down to cause the sound to “whoosh” as if it were in a wind tunnel. This was originally done by holding a finger against a tape flange (the metal part that holds the tape on the reel), hence the name.

**groove:** The pulse of the song and how the instruments dynamically breathe with it. Or, the part of a vinyl record that contains the mechanical information that is transferred to electronic info by the stylus.

**guide vocal:** See scratch vocal.

**Humbucking:** A guitar pickup that uses two coils in reversed polarity to eliminate outside noise and interference (they “buck the hum”). Humbucking pickups have much higher gain than single coil pickups.

**hypercompression:** Too much buss compression during mixing or too much limiting during mastering in an effort to make the recording louder results in what’s known as hypercompression, a condition that essentially leaves no dynamics and making the track sound lifeless.

**jingle:** Any form of music used for an advertising spot on any media.

**intermittent:** Where the audio cuts in and out or crackles. Guitar cables are frequently intermittent.

**intonation:** The accuracy of tuning anywhere along the neck of a stringed instrument like a guitar or bass. Also applies to brass, woodwinds and piano.

**iso booth:** Isolation booth. An isolated section of the studio designed to eliminate leakage from coming in to the booth or leaking out.
**ISRC code:** An international standard code for uniquely identifying sound recordings and music video recordings. An ISRC code identifies a particular recording, not the song itself, therefore different recordings, edits and remixes of the same song will each have their own ISRC code.

**leakage:** Sound from a distant instrument “bleeding” into a mic pointed at another instrument. Acoustic spill from a sound source other than the one intended for pickup.

**Leslie:** A speaker cabinet, primarily used with organs, that features rotating speakers.

**lockout:** A booking in a studio where you get charged only for 12 hours, but no one else can use the studio for the other 12 so all your gear and the gear in the control room can remain set up.

**lossy compression:** A digital-audio compression scheme. The complete original digital code cannot be recovered from files with this type of compression. Supposedly, some of what is normally recorded before compression is imperceptible, with the louder sounds masking the softer ones. As a result, some data can be eliminated since it’s not heard anyway. This selective approach, determined by extensive psycho-acoustic research, is the basis for “lossy” compression. MP3 and AAC are lossy compression schemes.

**look-ahead limiter:** Mastering limiter that delays the audio signal a small amount (about 2 ms or so) so that the limiter can anticipate the peaks of a soundwave in such a way that it catches the peak before it gets by.

**low end:** The lower end of the audio spectrum, or bass frequencies usually below 200 Hz.

**master:** A final version of a recording that is destined for distribution.

**mastering:** The process of turning a collection of songs into a record by making them sound like they belong together in tone, volume, and timing (spacing between songs).

**Mellotron:** A keyboard popular in the 1960s that used tapes of recorded orchestral instruments to generate its sounds.

**multiband compression:** A compressor that is able to individually compress different frequency...
bands as a means of having more control over the compression process.

**Music 1.0:** The first generation of the music business where the product was vinyl records, the artist has no contact directly with the record buyer, radio was the primary source of promotion, the record labels were run by record people, and records were bought from retail stores.

**Music 1.5:** The second generation of the music business where the product was primarily cds, labels were owned and run by large conglomerates, MTV caused the labels to shift from artist development to image development, radio was still the major source of promotion, and CDs were purchased from retail stores.

**Music 2.0:** The third generation of the music business, which signaled the beginning of digital music. Piracy ran rampant due to P2P networks, but the industry took little notice as CD sales were still strong from radio promotion.

**Music 2.5:** The fourth generation of the music business, during which digital music became monetized thanks to iTunes and later, others like Amazon MP3. CD sales dove, the music industry contracted, and retail stores closed.

**Music 3.0:** The current generation of the music business, in which the artist can now communicate, interact, market and sell directly to the fan. Record labels, radio and television become mostly irrelevant and single songs are purchased instead of albums.

**Native resolution:** The sample rate and bit depth of a distribution container. For example, the native resolution of a CD is 44.1kHz and 16 bits. The native resolution in film work is 48 kHz and 24 bits.

**Outboard gear:** Hardware devices like compressors, reverbs and effects boxes that are not built into a console and usually reside in an equipment rack in the control room.

**Out of phase:** The polarity of an audio channel in a stereo path is reversed, thereby causing the center of the audio program (like the vocal) to diminish in level. Electronically, this can occur when one cable is wired backwards from all the others.

**Outro:** The section of a song after the last chorus until the end of the song.
**overdub:** To record along with previously recorded tracks

**pad:** Long sustaining note or chord.

**pan:** Short for panorama

**panning:** Moving a sound across the stereo spectrum

**points:** A percentage of sales or other revenues

**pocket:** In the “groove” (the rhythm) with the song.

**power chords:** Long sustaining distorted guitar chords.

**pre-chorus:** A section of a song between verse and chorus sections. Not found in every song.

**preproduction:** A process of familiarizing an ensemble with the songs and arrangements before recording it.

**producer:** The equivalent of a movie director, the producer has the ability to craft the songs of an artist or band technically, sonically and musically.

**punchy:** A description for a quality of sound that generally means good reproduction of dynamics with a strong impact. The term sometimes means emphasis in the 200 Hz and 5 kHz areas.

**record:** A generic term that’s come to mean a recorded project released for distribution to the public. A record may be in the form of a CD, digital audio file, vinyl disc, cassette, or some distribution container not yet invented.

**rehearsal:** A practice or trial band performance.
release: The end of a sound or phrase.

rushed fill: A drum fill that wavers ahead of the beat.

scratch vocal: A temporary vocal recorded during basic tracking with the intention of replacing it later.

sequencing: Setting the order in which the songs will play on a CD or vinyl record.

single coil: A guitar pickup found primarily on Fender guitars.

spread: The time in between songs on a CD or vinyl record.

spec: A production for which no money is paid upfront with the promise that it will be paid later if the production is used.

snare: A thin drum with springs or “strainers” underneath that create a “rattling” sound.

snare strainers: The string of springs on the bottom of the snare drum.

sympathetic vibrations: Vibrations, buzzes and rattles that occur in drums other than the one that was struck.

track: A term sometimes used to mean a song. In recording, a separate musical performance that is recorded.

TV mix: A mix without the vocals so the artist can sing live to the backing tracks during a television appearance.
**union date:** A session governed by the by-laws of the relevant union, including the pay scale.

**tempo:** The rate of speed at which a song is played.

**vibe:** The emotional atmosphere communicated to and felt by others.

**voicing:** The way the notes of a chord are distributed.

**word length:** The number of bits in a digital word. Word length is in groups of eight. The longer the word length, the better the dynamic range.
Index
0 dB full scale
10 CC
Bennett, Tony
Benson, George
Berry, Chuck
big ears
bit rate
Blige, Mary J.
blues
Bob Marley and the Wailers
book rate
Boss
bottom
boutique gear
Bowie, David
Boyz II Men
bpm
Bradley, Owen
bridge
Bright, Mark
Brooks, Garth
Brown, James
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cables
Carey, Mariah
Cash, Johnny
cassette
CD—
cello
Charles, Ray
Cher
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chorus (electronic effect)
chorus (in a song)
Clapton, Eric
click
clip
clipping
Clooney, Rosemary
Coldplay
competitive level
composers
compression—
compressor
Congos
contractor
contractors
converters
cross-collateralization
CTI Records
cue
cue mix
cymbals
D/A
Danelectro
Davis, Miles
DAW
delay
demo
Devo
Diamond, Neil
Diddley, Bo
digital music
digital overs
DigiTech
Dixon, Willie
DJs
Doobie Brothers
double
Douglas, Jack
downbeat
Dozier, Lamont
Dr. Dre
Dresel, Bernie
Drifters
drum—
Drum Doctor
drummers
drums,
Martin, George
master
mastering—
Mathis, Johnny
Mavericks
McBride, Martina
McEntire, Reba
McLaren, Malcolm
Meek, Joe
Mellotron
Melrose, Lester
Metallica
metronome
Michael, George
microphone
mics
Miller, Mitch
Mingus, Charles
Minimoog
mix —
Moby
motion
Motown
mp3
mp3
MTV
Muddy Waters
multiband compression
Murvin, Junior
Music 1.0
Music 1.5
Music 2.0
Music 2.5
Music 3.0
Music Man StingRay
musicians —
Musitronics
MXR
Nashville
native resolution
Neve
No New York
O'Jays
Octavia
organ
out of phase
outboard gear
outro
overdub
P2P
pad
Page, Patti
pan
panning
passion
Paul
Paul, Billy
Paul, Les
pay scale
pedals
Peer, Ralph
percussion
Perry, Lee “Scratch”
Perry, Linda
Pet Shop Boys
Petty, Tom
Phillips, Sam
piano
Pickett, Wilson
pickups
piracy
pitch
Plati, Mark
plug-ins
pocket
points
Police, the
power chords
pre-chorus
preproduction
Presley, Elvis
Pro Tools
producer —
producers— —
publisher
punchy
Raitt, Bonnie
Rascal Flatts
Rawls, Lou
record —
record stores
recording —
records —
Red Hot Chili Peppers
rehearsal
rehearsals
release
reverb—
Rhodes
rhythm guitar
rhythm section
Rickenbacker
Rizzo, Carmen
Robbins, Marty
Rogers, Jimmy
Romeo, Max
Rubin, Rick
rushed fill
scratch vocal
Seal
Seger, Bob
sequencing
set up
setting up
setup
Sherwood, Adrian
Shure
signal chain
Simple Minds
Sinatra, Frank
singers
singing
single coil pickups
A long-time veteran of the music industry, Bobby Owsinski has produced and composed for records, DVDs, motion pictures, and television shows. One of the first to delve into surround sound music mixing, Bobby has worked on over 200 surround projects and DVD productions for such diverse acts as Elvis, Jimi Hendrix, The Who, Willie Nelson, Neil Young, and the Ramones among many, many others.

Currently a principle in the music production house Surround Associates and content creator 2B Media, Bobby has also penned several hundred articles for many popular music and audio trade publications. His three previous books: *The Mixing Engineer’s Handbook*, *The Recording Engineer’s Handbook*, and *The Mastering Engineer’s Handbook* are now staples in audio recording programs in colleges around the world. A frequent moderator, panelist, and program director for various music and audio industry conferences, Bobby has served as the longtime producer of the annual Surround Music Awards, and is currently an executive producer for the *Guitar Universe and Favorite Music of the Stars* television programs. You can learn more about Bobby and his projects at [www.surroundassociates.com](http://www.surroundassociates.com), [www.2bmedia.tv](http://www.2bmedia.tv), and [www.bobbyowsinski.com](http://www.bobbyowsinski.com).