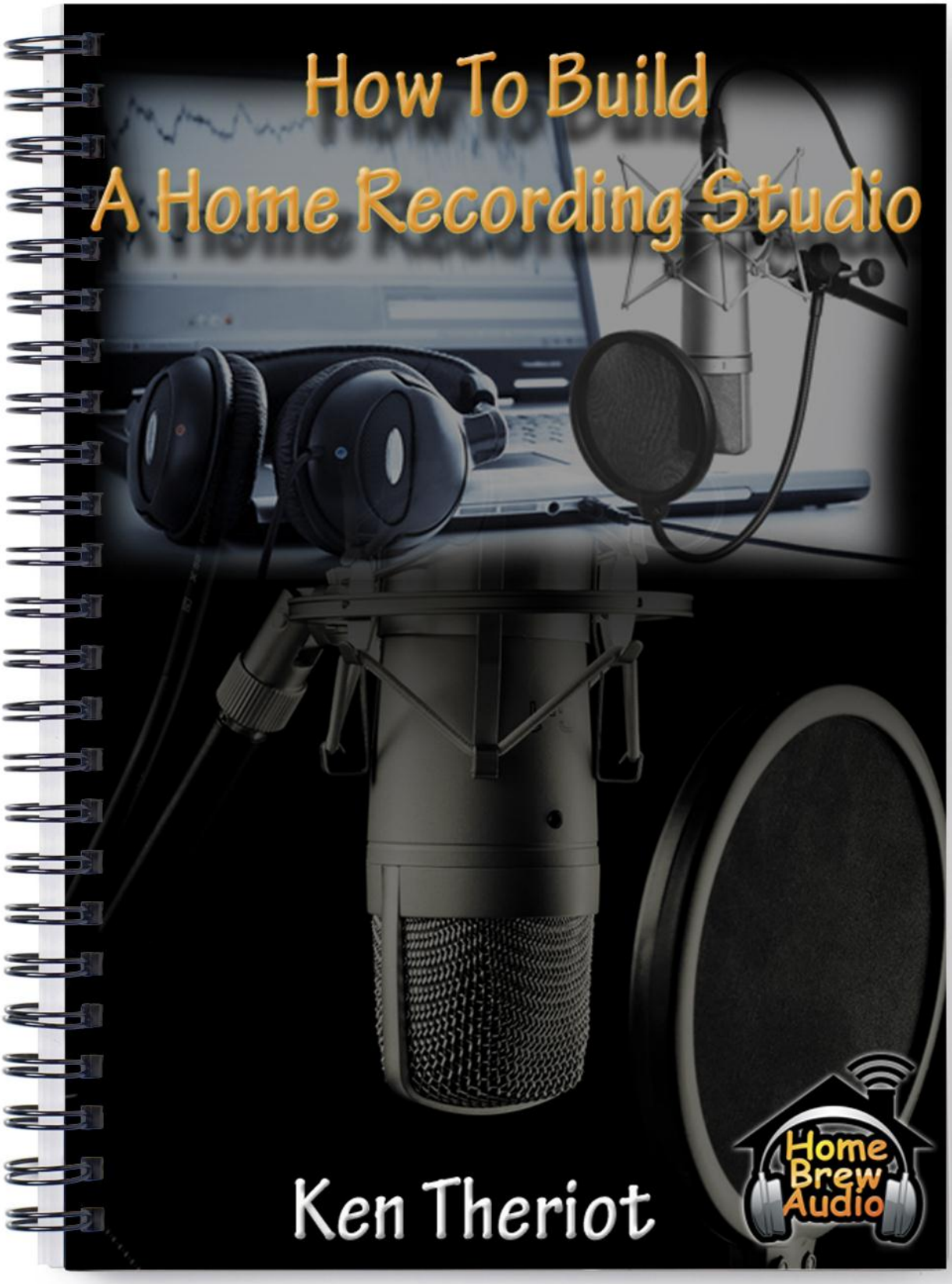

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How To Build A Home Recording Studio

Table of Contents

Introduction
Setting Up a Recording Studio on Your Computer
What Are The Basics of Recording On a Computer-Based Studio?
The Two Home Recording Studio Configurations
Get The Best Audio Quality By Fighting Noise
Preventing The Noise
Tip #1: Use a mic with a cardioid pickup pattern
Tip #2: Get your mouth close to the mic – like just a couple of inches
Tip #3: Make sure you record as loud as possible without distorting/clipping
Tip #4: Noise Reduction
Microphones and Sound Cards/Other Interfaces
Pro Quality With Home Recording Studio Configuration #1
Pro Quality With Home Recording Studio Configuration #2
Microphones for Configuration #2
Interfaces (Basically External Sound Cards) For Configuration #2
Recording Software
Audacity
Reaper
Adobe Audition
Some Words About the Editing Thing
The Studio Accessories
Microphone Stands
Shock Mounts
Cables
Headphones
Speakers
Pop Filters
Mixer
Review
Summary
About The Author

Introduction

How To Build a Home Recording Studio is designed to walk you through how to build a computer-based home studio capable of recording professional quality audio, whether be for music or voice-overs/podcasts/video narration, etc. You will also learn several techniques for record the best possible audio for the lowest possible cost.

Setting Up a Recording Studio on Your Computer

What do you think you'd have to do in order to record and produce professional sounding audio, whether that be music, voice-overs, etc? Do you think you need expensive microphones, interfaces and other gear? Most people do.
Maybe you think the only alternative is to go into a commercial recording studio where the average hourly rate is $50. Well, you're not alone. Most people do.
The truth is that with some basic knowledge (and not even "hard" knowledge) you can get professional sounding audio with gear costing less than $100, assuming you already have a computer – a normal, every-day computer.
Before we talk about gear and how to set things up, this is really important to know – ***good audio is NOT guaranteed just because you bought a Neumann microphone and Pro Tools HD recording software.*** (those are very expensive – in case you were wondering).

Regardless of your set-up – If you know what you're doing, you can get decent audio from the cheapest gear. But LACK of knowledge causes lots of folks to make crappy recordings even with expensive gear. I'll give you 4 tips for doing this (the getting decent audio part). First though, here's a disclaimer: Let me say

that better quality microphones and interfaces, which do cost more, can and do create audio that is superior than what you can get from the cheapest gear – but ONLY if you know a bit about what you're doing!

On the other hand, if you DO know what you're doing…… it is possible to produce better audio with a plastic PC mic than someone with no experience using a set-up costing…wait for it…100 times more! How can I be so specific? Because during the first Home Brew Audio podcast, we compared the sound quality of some spoken-word stuff made with gear costing $5.00 against a setup costing $500. The result was obvious to even the most casual listener. The $5.00 studio was better! If you'd like to hear that for yourself, check out our post where there are two audio samples of what I'm talking about: www.homebrewaudio.com/5-dollar-vs-500-dollar-mic

If your primary purpose for recording audio is to create voice-overs, podcasts, or video narrations, the news is even better, because you'll need a lot less gear compared to a music recording studio. So the path to truly excellent audio quality is much shorter and less expensive.

What Are The Basics of Recording On a Computer-Based Studio?

1. A microphone captures the sound
2. The sound is converted to ones and zeros (digital audio) by a sound card or audio interface.

3. A recording program reads the digital audio, allowing you to edit, save, etc.

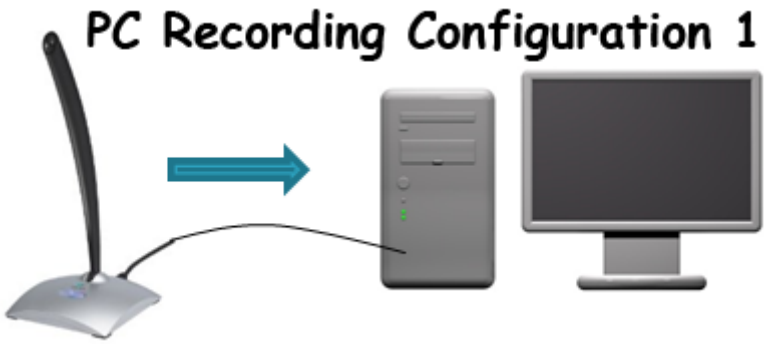
The Basics of Recording on a Computer-Based Studio

The most important stuff often happens before the sound even reaches the microphone – such as preventing noise, for which I have four important tips. But first I'd like to introduce the basic home studio configurations.

The Two Home Recording Studio Configurations

We see computer recording studios as having one of two set-up configurations:

Configuration 1: A microphone plugged directly into the computer, either via the sound card or a USB port



Configuration 2: A microphone plugged into an interface box or other 3rd-party device designed to accept a standard 3-pin microphone cable.

The most basic of basic studios will be a computer microphone plugged into a computer sound card (configuration #1), along with recording software on the computer. You can do that for $5.00 if you use a common plastic pc mic. But it would be really hard to get pro quality audio from that.

OK then, how do you improve audio quality regardless of what configuration you use? The answer is all about the noise. Noise -Noise- Noise! Earlier I mentioned four important tips for improving audio quality regardless of you set-up. All four of those tips are about dealing with noise.

First, we do as much as possible to prevent noise – preventing it before the sound gets to the mic, then preventing as much of the internal noise as possible, like electronic stuff (buzz and the like) from the computer, cables, interface, etc. Next, we “crowd out” certain types of noise by getting the microphone very close to the source and recording it as loud as we can without distorting. Then we

reduce and/or eliminate as much of the noise that inevitably does gets recorded as possible using audio software.

Get The Best Audio Quality By Fighting Noise

The goal of recording, say, a voice is to capture what that voice sounds like as accurately as possible. The more noise there is in the recording, the less of the pure voice you will hear during playback. So the biggest enemy of good audio is noise; and I don't just mean hiss and lawn mowers and barking dogs and electrical hum and static, etc. "Noise" is anything that is not the thing you are trying to record (that is called the "signal"), and it can also include echos of the signal. This is usually referred to as "room sound," which turns out to be the most common and oft-offending noise there is.

Preventing The Noise

In a perfect world, you would have a great recording space where the room sound actually complements the signal; an ideal space would be one that not only is dead quiet, but does not affect the audio in a negative way either by creating echoes and reverb. These types of spaces are rare, especially for those of us recording at home where we mostly use converted bedrooms and the like. The next best option would be to use something like a vocal isolation booth that is treated with acoustic materials to prevent and/or absorb echos, allowing you to record only the signal. Let's take a look at some of these.

ClearSonic IsoPac Vocal Booth

You can buy a full-blown vocal booth, such as the Clearsonic IsoPac, which will run you about $1,100. You can also build your own, or convert a closet for the purpose. If you try to convert a closet or build your own booth, you should understand that simply blocking out the lawn mowers, trucks, and barking dogs is not enough. The room sound in even a tiny room can sound bad, especially in the case of a square or rectangular closet. You'll need to either stuff it full of very absorptive materials so no sound can reflect of the walls, or make sure there are no parallel surfaces – preferably both.

For most of us, it is often impractical or too expensive to have either a great quiet recording space, or a good sounding isolation booth. Most of us do our recording in a spare bedroom, and bedrooms are notoriously effective at producing "bad" echoes that when added to the signal, make the audio worse. Sound bounces off of hard surfaces all over your room, combining with each other to amplify and/or reduce certain parts of the sound. Then all these different mutant versions of your voice arrive at the microphone along with the direct signal. The results are

echo-y at best, and likely will also sound unnatural and funky (sounding muffled, tinny, or like it came over a telephone – or even all of these).

If you've watched a lot of internet videos where someone is narrating, you have almost certainly heard the echo-y room sound thing. In fact it is way too common that a very slick and professional looking video has poor audio laid over the top. Usually it sounds like the person is speaking in a bathroom or something. In the case of talking-head videos (a person talking to the camera – not the 80s rock group:)), this is almost always caused by the fact that the narrator is relying on the built-in camera mic, which is several feet away. The further your sound source is from the mic, the more room sound will be recorded.

sE Electronics Reflexion Filter Pro

One alternative to a full isolation vocal booth is a small and portable boundary or isolation "shield" that can be placed behind a microphone, such as the sE Electronics Reflexion Filter, or the Aurlex MudGuard Isloation Shield

These have several different types of acoustic treatment materials to prevent your voice from bouncing off the walls, and helping to block any reflections from getting back into the microphone. These are usually semicircular and protect the areas behind

and to the sides of a mic. But something like that won't work for a talking-head video.

So the first thing we have to do is deal with room noise before any sound reaches the mic.

Tip #1: Use a mic with a cardioid pickup pattern

Most microphones are directional, meaning they pick up the sound coming from one direction better than any other (as opposed to omnidirectional mics which hear everything from all sides equally). A microphone with a "cardioid" pick-up pattern, so-called because it is roughly heart-shaped, records only what is in front of it, rejecting any sound coming from behind it and most of the sound coming from the side. Fortunately, most mics default to the cardioid pattern. Just be sure that if you happen to have a multi-pattern microphone, the switch is pointing at the thing that looks like a heart, which will be the cardioid setting. The "omni" setting usually looks like a circle; and the figure-8 (a pattern that picks up sound in front and behind the mic, rejecting what is on the sides) will look, well, like the numeral 8.

By pointing a cardioid mic directly at the source (your mouth, for example), and doing your best to have the back of the mic pointing to the loudest noise, you can reduce room noise significantly.

Tip #2: Get your mouth close to the mic – like just a couple of inches

This will help the mic get mostly your voice (the signal) and less of the reflected sound. This is probably the most important thing you can do if your recording space is less than ideal. This is doubly true if you are shooting “talking head” video. See our article, 3 Must-Know Tips For Getting Quality Audio From Your PC Recording Studio for more on this.

Tip #3: Make sure you record as loud as possible without distorting/clipping

A LOT of people make this mistake. They record their voice at a low level, and then they raise the level after the fact. The problem is that they are also raising the noise when the do this. So make sure to capture as high a level as possible of your voice in the first place. You can use the gain level on your interface (if you have one) or use the software mixer panel controls to do this.

Tip #4: Noise Reduction

The next step in producing clean audio is to reduce the noise that will inevitably be in our recording when our rooms are less than perfect. The way to do that is to use tools in recording software called noise reduction.

What NR does is sample a section of the audio that is ONLY noise (when there is no voice talking), so it knows what to turn down. Then the program separates the noise from the signal and gets rid of it, ideally leaving the signal/voice unaffected. That last bit is really hard to do. There is often some “artifact” left behind after NR is performed. It sounds like swirling water, so you have to play with the settings to find the right balance of noise reduction without making the signal sound too weird. And the more noise there is to start with, the worse that swirly artifact is. If you do all four of those things, you can get the best possible audio out of the cheapest possible gear. It’s what I did in the $5.00 vs $500 thing.

That is the first answer to the question of how we move toward pro audio from the $5.00 setup – having a basic understanding of how to limit noise.

Now let’s address step #2 of computer recording basics, the part where sound is converted to ones and zeros (digital audio) by a sound card or other type of interface.

Microphones and Sound Cards/Other Interfaces

Quality of audio conversion (in this case, bad quality) is the main reason the $5 plastic PC mic going into a sound card is not the best idea for a studio set-up.

The microphone is very limited in how accurate it can be since the components are small and cheap and tend to be oversensitive to certain sounds (p-pops and rumble and other low frequency stuff), and not sensitive enough to others. Then comes the fact that the converters built in to integrated sound cards of most computers are of poor quality. Then to top it all off, integrated sound cards pick up a lot of electrical noise from the motherboard.

Pro Quality With Home Recording Studio Configuration #1

The best first step then is to avoid having to plug a microphone into an integrated sound card. The fastest and most inexpensive way to do that is to use a USB microphone, which will have digital converters built right into it, making for better quality conversion and avoiding much of the computer noise. And since the converters are built in, you won't need a separate audio interface, which is usually at least $100 and is another piece of gear (usually a small box) to deal with.

But not all USB mics are good for creating pro audio. The small headset USB mics (~$25) are still quite small and have a lot of the same accuracy and frequency response limitations as other non-USB pc mics. But for not much more money than the headsets, you can get larger, more accurate USB mic like the Samson Q1U for $49.

Samson C01U

This “upgrade” is where you move into the realm of professional quality audio – improving your sound greatly by moving from the tiny USB headset mics to larger USB mics. You can then incrementally improve sound quality – your next upgrade – by moving to a *large diaphragm condenser* USB mic like the Samson C01U ($80). Prices go up from there for LDC type USB mics, topping out around $500 for the MXL UR-1 USB Ribbon Mic.

I find that even with the larger USB mics you still get a low-level hiss, usually so low you can only hear it in headphones, but still a bit more than you’d want to have if you were sending a voice-over job to a client. But noise reduction programs usually can fix this quite well.

That brings up another point about audio quality. With the basic knowledge we’ve been talking about, you can get top-notch audio quality from inexpensive gear, but it may take more time than if you had the expensive gear. Having to run noise reduction on everything is one example. This is fine, though, for most people as they frequently have more time available than cash. For most people, a large USB mic will give them as much audio quality as they will ever need.

Then as you can afford to, you can upgrade your studio in increments — BUT only if you need to! You should definitely try to let your need drive your buying decisions so you only end up with what you need. This will save you lots of time and money. It is all too common for people to end up buying lots of gear they don’t know how to use, and that they really don’t need, just because a sales

person told them to.

Pro Quality With Home Recording Studio Configuration #2

If you wish to move into the realm of great audio quality, you need to consider moving to home recording studio configuration #2 (a microphone plugged into an interface or other 3rd-party device designed to accept a standard 3-pin (XLR) microphone cable). This set-up will set the stage for getting the best audio quality possible. Even the highest-end computer-based studios use some form of this configuration.

Microphones for Configuration #2

Without going into a huge dissertation on microphone types I'm going to mention the two main kinds of microphones, dynamic mics and condenser mics. Here is what you need to know: for recording, use a condenser microphone. Of course there are exceptions to every rule, but in general dynamic mics are best for live performance and certain types of recording, like guitar amps and drums. Condensers, especially large diaphragm condensers, are best for recording the human voice.

Here are just a few examples of many available large diaphragm condenser (LDC) mics out there. As you can see in the picture above, prices start below

$100 and can go pretty darned high into the thousands. The cheaper LDCs are still going to sound pretty darned good if what you've been using is a USB headset mic or other tiny computer mic.

But the reason why there is such a range of prices is that, as I said in part 1 of this series, the more expensive mics can and do produce better quality than the cheaper ones for a variety of reasons, internal components and manufacturing specs being two biggies. Cheap LDCs often are less accurate and may sound harsh and thin in the middle to high frequencies. Also, features such as multiple pattern (cardioid/figure-8/omni), bass roll-off, and pad switches will make a mic more expensive. The good news is that you can upgrade your studio with better mics in increments of $50 – $100 at a time.

I currently use a Rode NT2-A as my main microphone, which runs about $399 and has all 3 of the switch options I mentioned above. Its little sibling, the NT1-A, which has none of the switches (default pickup pattern is cardioid), costs significantly less at $229. The latter also has sounds slightly different (some say not quite as good) as well.

One of these days I'll probably step up to one of the *Neumann* LDCs, such as the TLM 102 or TLM 103. Neumann microphones are some of the best available, and as you can see from the picture above, the price reflects that.

Keep in mind that these are standard (**not** USB) mics with 3-pin XLR connectors, so they will need to be plugged into an interface of some kind to both amplify the signal and convert analog sound to digital audio. Speaking of which…

Interfaces (Basically External Sound Cards) For Configuration #2

Audio interface units, such as the M-Audio Fast Track (see picture below) costing $99, typically accept microphone (XLR) inputs, and usually instrument inputs as well. The Fast Track only has 1 input though, so can only record one thing at a time. Interfaces like these do two main things. They amplify microphone signals using what is called a "preamp" (short for pre-amplifier), and they convert sound into digital audio by means of the analog-to-

digital converters built into them. They also come with something called "phantom power" which is required for condenser mics.

Combine one of these interfaces with a standard (non-USB) large diaphragm condenser mic and the result is crystal clear, very detailed and accurate audio. You can put together an entry-level Configuration #2 studio for under $200 (not including the stands and other accessories. Even the extreme high-end recording setups will use some version of the mic-infterface-computer configuration. For example, a high-end studio using a Neumann U-87 mic ($3,100) and Pro Tools HD Interface with 16 inputs ($4,995) set-up will cost around $8,100.
The vast majority of folks will find the quality of even the least expensive of this type of setup (~$300) to be good enough for anything they'll ever want to do.

Recording Software

I left this part until the end because if you get everything else right, the software is probably the least important part of the equation. There are tons of programs to choose from, so it can be tough to figure out what you should get and how much you should pay. My suggestions will be based on my experience and will enable you to sound professional even with a limited budget.

Audacity

For most voice-over stuff, you can probably do most (if not all) you need to do with the free program called Audacity,

which you can download from the web and start using right now. For a free product, Audacity is pretty amazing, capable of just about any basic audio recording and editing function, including multi-track recording. But it is a bit hard to use, not very intuitive, and some of the editing tools aren't great, especially the noise-reduction tool, which as we have mentioned, is important for voice-over recording. By the way, our "recording 101" course called *The Newbies Guide to Audio Recording Awesomeness – Part 1*" uses Audacity to teach you the basics of recording. Part 2 of the course uses Reaper.

Reaper

I always recommend *Reaper*, by Cockos, which is incredibly powerful. I use it for everything, even my music studio. Make no mistake, this is professional software that rivals programs 10 times more expensive. From basic voice-over recording to full-blown multi-track music recording, including MIDI, virtual instruments, etc., Reaper can do it all. I've recorded 5 CDs (for Raven Boy Music) using it, and have several more in-work.

I mention this next bit only because I made such a big deal about noise reduction in this series. Even though it isn't labeled as such, there is a tool in Reaper that is one of the best noise reduction tools available, called ReaFIR (FIR=finite impulse response). It actually works better for reducing noise than many programs

designed for the purpose! And ReaFIR is just one of dozens of effects that come bundled with Reaper. That's just a bonus tip;). I put up a post with a video on ReaFIR here.

Cockos also has a "Fair Pricing" scheme for Reaper that is unheard of in any kind of business. Unless or until you start making on the order of 20 grand per year with the audio you produce using Reaper, you don't have to buy the commercial license, which costs $225. You can use the "discounted" license, which is only $60. And the software is the same! Also, the 30 day trial is a completely un-crippled, full version of the software – the exact same as the commercial license version – and will never stop working. Though after 30 days you'll start getting pop-ups reminding you that the product is not free. They understand that it sometimes takes more than 30 days to evaluate audio software, especially if you're just getting into recording. All of this is on the honor system. Who does that? Well, I can't think of any other business off-hand. I recommend Reaper all the way.

Adobe Audition

I use Adobe Audition alongside Reaper to edit individual files and final project renders (aka mix-downs). Audition started out as just an audio editor called Cool Edit back in the 90s. It didn't do multi-track recording, but rather focused on making changes to a single audio file. You could analyze,

filter, and apply treatments by the dozens – multiple kinds of EQ, compression, reverb, echo, noise reduction, clicks-and-pops reduction (really helps with recordings transferred from old LPs), and tons of other things. These edits were "destructive," which doesn't mean "bad." It simply means that once you apply them, they affect the underlying file.

Cool Edit Pro added the ability to do multi-track recording, was bought by Adobe and had its name changed to Audition. Now you can pretty much do it all with Audition – destructive AND non-destructive editing, MIDI, virtual instruments, the works. It, like Reaper, is decidedly professional software. It costs $349.

Some Words About the Editing Thing

I use Adobe Audition strictly as an editor – I usually don't record audio with it. Though you can do most things, including editing (non-destructive), with Reaper, I prefer to finish every project with a full-fledged editing program like Audition or *Sony Sound Forge* (Audacity can be used as an external editor with Reaper as well). These programs have more specialized tools for really getting down into the bits (literally) of an audio file, as well as music mastering and CD authoring, and some things simply cannot be done in Reaper such as redrawing a waveform with a pencil tool to get rid of a glitch in the audio. But it isn't only that. There is a different mindset to working on the final audio from a project. It's like taking off the recording and mixing hat and putting on the final editing and mastering hat. To me it is a workflow thing.

For example, let's say you had several tracks of audio in a Reaper project. in voice-over work you might have the voice on one track and music and/or sound effects on other tracks. You can't send it to a client until you render (mix down) the project into one audio file (mp3, wav, etc.). That final audio file is what I then open in Audition. It's where I put on the headphones and really listen to the details, doing things like clipping out odd mouth sounds like breathing or what I call "saliva clicking" (don't dwell too much on that last one:)), editing and eliminating offending p-pops, fading in and out on specific phrases, evening out overall volume with compression, and controlling maximum volume with normalization.

Finally I can save the audio as any number of different formats quickly and easily. It's polishing and finalizing the audio before it goes to a client or onto a CD or some other sale-able form. Some of these things can be done in Reaper, but I find them faster and easier in Audition. In the end though, whether you use an external editor comes down to need and personal preference.
The software mentioned above, though there are dozens of others out there, should be enough to do anything you need to do from recording, mixing, editing and final mastering.

The Studio Accessories

All of the equipment above represents the core gear of a home studio. But you'll also need some additional things like mic stands, headphones, pop filters, headphones, shock-mounts, etc.

Microphone Stands

Since I'm recommending a large diaphragm condenser type mic, you'll need a mic stand of some sort. For non-talking-head voice-over stuff, I highly recommend a scissor stand such as the AKG Table Mounted Scissor Stand. You can clip it to a table or desk, and rotate, push or pull the mic away as you need it. I use one of these and find it incredibly handy, especially for voice-over work. The mic is always right there when I need it and I can just push it up and out of the way when I'm not using it. These run between $70 and $170 and come with the mic cable built in, which is also really convenient.

If you use the hand-held type of mic, a standard desk top stand, such as the Atlas Sound Stand, will only run from $15-$30 bucks or so.

For music or voice-over use, another great and versatile choice is a boom stand like the On-Stage MS7701B Euro-Boom. You can move these around and put them anywhere, and the boom functionality allows you to place the mic at any angle or height you want.

Shock Mount

Shock Mounts

Large diaphragm condenser (LDC) mics are very sensitive to any bumps or vibrations coming through a mic stand. That is why it is almost mandatory to use a shock mount, which holds the mic suspended in a spider-web-looking thing made up of elastic bands. Most LDCs have specific shock mounts designed for them by the mic manufacturer, and some even come with one, like Audio-Technica AT2020 and AT2035 microphones. But you can also get a universal shock mount such as the *MXL-USM001 Universal Basket-Style Shock Mount* that will work with any LDC you have.

Cables

XLR Cable

If you're using a non-USB mic and not using a desk boom stand (which come with the cable built in), you'll need a mic cable, which usually cost about $25. These cables have the 3-pin XLR connectors. Of course if you are using a USB mic, you'll use a USB cable. Be sure to use the one that came with the mic if you can, as these are designed for audio. Not all USB cables are up to that task.

Headphones

You can get away with using mp3-player-type ear buds if you need to, or if you're going to stick to the headsets, that's fine too. But having headphones allows you to hear the audio much more clearly and are very useful if you do any Skype

chats or other types of on-line meetings where you need listen as well as speak into your mic. Otherwise the speakers will also be picked up by the mic and cause feedback and other unpleasantness.

Of course, if you're doing any multi-track recording (usually with music studios), headphones are necessary. I use both the *Sennheiser HD 280* and the *Audio-Technica ATH-M50* and recommend either or both.

Speakers

Again, if you already have speakers hooked up to your computer (most people do), you can get away with using those for now. When you can afford it though, a good upgrade would be to invest in a pair of monitor speakers such as the *KRK RoKit G2 Active Monitors*. The 6″ version will run about $200 per speaker.

If you are recording and mixing music in your studio, I highly recommend getting monitor speakers like the ones I mentioned as soon as you can. Headphones are great but for music they often sound TOO good. You get the best idea of what is actually going on in your mix if you listen with speakers so the music can move through the air.

Pop Filters

If you are recording your voice, you NEED a pop filter/screen to reduce the p-pops that are inevitable in human speech. Large diaphragm condenser mics are extremely sensitive to the little blasts of air that hit them when we say the letter “P” (or other plosive sounds). The result in the recorded audio is little low-frequency splat type of sound. A pop filter set up between your lips and the mic will reduce or even eliminate p-pops. One good example is the Pearstone Nylon Round Pop Filter. They cost about $23.

Mixer

You don’t need one. Yeah, I know. The popular image of recording studios of show big mixing boards with lots of impressive knobs and sliders. But for a computer based home recording studio, you do all your mixing in the computer. Trying to route things through a mixer can really confuse things. Notice that neither of our home studio configurations includes a mixer. The quality of mic preamps on a typical mixer is usually not good for recording.

One exception to what I’m saying about mixers in home studios is the MIDI control surface unit. These units are designed to give you physical control over your software mixer. Folks doing mainly voice-over work would probably not need one. Musicians who prefer

using their hands to move sliders and knobs rather than a mouse are typically the ones who like to use control surfaces. One example is the Mackie Control Universal Pro – Expandable Control Surface.

That's pretty much it for basic accessories!

Review

Let's review the basic home recording studio set-up options configurations.

- **Configuration 1 (a mic plugged directly into a computer)**

For pro quality audio you'll need a USB mic on a stand with a pop filter plugged into a normal computer running, say, Reaper software. Total cost would be about $159.

- **Configuration 2 (XLR mic plugged into an interface plugged into a computer)**

The basic pro-capable option would be a large Diaphragm Condenser mic (non USB) on stand with a pop filter, plugged into an interface which is plugged into a normal computer running Reaper software. The total cost for that would be about $315 - IF you buy them separately. However…

Home Recording Starter Kit

We were able to get a bundle deal with B&H Photo-Video-Audio called *The Home Recording Starter Kit*, which gives you everything you need in one product for a much lower price – $247.50 (with free shipping!).

For musicians, we tweaked the bundle to include a MIDI keyboard, a 2-mic-input interface, and added a small diaphragm condenser mic so you could record an acoustic guitar or other instrument as well as your voice. That bundle, the Home Recording Musicians Starter Kit is $417.50 (would cost $491.84 if you bought each item individually).

Musicians Starter Kit

Summary

So now that you know how to put your studio together, you'll want to know how to actually do the recording, right? That's what Home Brew Audio is all about! We've got tutorials, articles, tips and resources to help you on your recording journey. Also, we have a video tutorial course called *The Newbies Guide To Audio Recording Awesomeness* that takes you step-by-step, even if you've never done any recording before, through creating your first recordings and teaching you the basics of audio recording. Part 1 of that course uses the free audio software Audacity to walk you through the basics. Part 2 shows you how to the same basics from part 1 when using Reaper software, plus introduce you to even more powerful and awesome recording tricks and techniques.

Now that you know how to put together an affordable but professional home recording studio, AND you have a place to learn how to use it, you can start

recording awesome voice-overs, songs, video narrations, audio books, etc.

Have fun and Happy Recording!

About The Author

My name is Ken Theriot, and I have been recording and producing music for over 20 years. I started http://www.homebrewaudio.com to help people set up and use their home studios to produce high quality audio without having to spend a fortune (the starting budget is "zero-to-five dollars"), and without having to have a masters degree in audio engineering. I'm all about getting the point across so "regular people" can understand the concepts, which truly aren't hard. They just seem that way because too often the explanations come from "tech guys" whose second language is "engineer-ese."

I hope you've enjoyed this "report/e-book/pamphlet/whatever it is" and that it helps you in your audio endeavors.

Cheers,
Ken Theriot

Come and get more information at our site: http://www.homebrewaudio.com/