

## Improving Your Sound

Over the years incredible advances have been made in music technology, but unfortunately, these advances have been not passed on to the average consumer.

The average consumer today is mostly interested in sound to let them know they have received a new e-mail. Computer manufactures include basic sounds for gamers and listening to CD, but musicians music hobbyists must go a step further to update their personal computers for real music. The technology is available, and it is very impressive!

There are three main components you should consider to improve your sound:

- 1) Your sound card – If your current sound card is the original card shipped with your computer it can be the source of poor quality audio and midi. Using a sound card created for audio recording will greatly help your sound.
- 2) Your midi synth - If you are using a midi keyboard/controller with your software, a midi sound module will greatly improve your midi sounds. If you are using midi sound for playback only, you might consider a quality software synthesiser.
- 3) Your speakers - Quality home studio speakers will make a substantial difference to the quality of your projects as well.

### Why shouldn't I use my existing soundcard and speakers?

There are a few major flaws with standard sound cards included in most computers and the speakers that accompany them. Since they were never designed for audio recording, they do not include any shielding. This leaves your audio input helplessly subjected to all sorts of noise pollution (electro magnetic radiation) created inside your computer.

Secondly, connections are also made directly into the back of the computer, increasing the risk of noise pollution.

Standard sound cards are also not designed for quality digital audio conversion. When recording, audio undergoes a conversion from analogue to digital. Your sound card samples the analogue audio and converts it to a digital format. If you are familiar with digital cameras, you know that the more mega-pixels your camera processes, the better the resolution. With sound cards the higher the bit-depth and sample rate, the better the resolution of audio! Needless to say, your standard sound card is not going to give you the analogue to digital conversion you need for CD quality recordings.

As for speakers, quality monitors will help you to make your CDs sound great. The problem with standard desktop "multi-media" or "home theatre" computer speakers is that they often include a pre-set equalization that makes it impossible for you to balance your files. For example, if your speakers lack bass you will be adding far too much in your mix. After you burn your CD and take it to your home stereo, the bass will overpower the rest of your recording! Speakers designed for audio recording are designed specifically for this purpose and give you the piece of mind you need when mixing audio (and saves you time audition your mix on various systems). For more information on the speakers we carry, please visit our Speakers & Headphones Category at [http://kellysmusicandcomputers.com/speakers\\_headphones.asp](http://kellysmusicandcomputers.com/speakers_headphones.asp)

## What is a synthesizer?

There are two general types of sound on your computer. One type is audio and the other is midi. Audio is an exact representation of sound. The music on a CD you would play on your home stereo is audio. Midi is a computers representation of sound (a computers attempt at mimicking a real instrument). The synth on your standard sound card or built in soft synth includes midi sound generation. These synths are primarily designed for games and the quality of sound is generally very poor. Many users find it hard to distinguish between many of the instruments (making their use with notation programs impracticable as the instruments do not sound very realistic).

## How can I improve the sound of my sound card and synth?

Throw away your old sound card and put a new one in, or if you have the space, install a second card for audio recording! At this point there are a few things to consider. Key components of a quality audio sound card are:

- 24-bit 96 kHz AD/DA conversion (analogue to digital and digital to analogue conversion)

- Standard audio connections used by musicians (1/4" for electric instruments / XLR and phantom power for mics)

- Make sure the card is well shielded

- A USB/Firewire card or a PCI card with a breakout box can minimize interference

- Digital Connectivity (for mini-disk players and digital monitors)

- Does the sound card have enough inputs for your project (professional cards include anywhere from 2 to 8 analogue inputs)?

To improve your synth sound, you can do so in two ways. If you are using a midi device like a midi controller/keyboard with your software, I highly recommend a midi sound module. You will find a great improvement over your current sound, and you will not experience any sound delays commonly associated with software synths. You might find our Buyer's Guide on Sound Cards to be very useful when trying to decide the kind of sound card that will meet your needs. You can find the Buyer's Guide on Sound Cards at <http://kellysmusicandcomputers.com/soundcards.asp>

If you are using midi sounds for playback only, there are a wide range of midi synths that will greatly improve your sound! You can learn more about Software Synths in our Software Sampler and Synths Category at

[http://kellysmusicandcomputers.com/software\\_sampler\\_synth.asp](http://kellysmusicandcomputers.com/software_sampler_synth.asp)

## Summary

- 1) If your current soundcard was included with your computer it needs to be replaced with a professional card. Consider what you require in terms of connectivity and match the card with your needs.
- 2) If you use a midi keyboard/controller with your software, consider adding a midi module for improved midi sounds.
- 3) If you use your current synth for play-back only, consider adding a new software synth.
- 4) A good pair of speakers will go along way to helping you mix down and enjoy your music.

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