Using Your iPod to Record Audio and Podcasts

Back in the day, if you wanted to record an interview or a conversation, you used a portable cassette recorder. Technology evolves, of course, and the standard cassette recorder morphed into the microcassette recorder (using smaller tapes) and the digital audio recorder (using Flash memory for storage). Given that the iPod, in data storage mode, works similarly to a Flash memory storage device, why can't you use your iPod for voice recording?

The answer is, of course, that you can. With the right accessories, you can use your iPod to record conversations and interviews, and even to record and mix podcasts for broadcasting over the Internet. Read on to learn more.

Turning Your iPod into a Voice Recorder

The secret to turning your iPod (from the Flash-based nano to the bigger hard disk

iPod) into a voice recorder is to somehow attach a microphone to the unit, and then input digital audio signals from the mic to the iPod's internal storage. Which is exactly what several accessory manufacturers have done.

How iPod Microphones Work

All iPod microphones work in a similar basic fashion. You connect the microphone to either the iPod's earphone jack or dock connector. When powered on, the microphone picks up the surround sound and sends it into the iPod for storage.

Using an iPod mic is as simple as turning it on, configuring the recording settings, and then pressing the Record button. While recording, elapsed recording time typically displays on the iPod's screen, and you can listen to what you're recording via the iPod's earphone jack.

The audio you record is automatically stored on your iPod, where it can later be retrieved by the data storage methods discussed in Chapter 15, "Using Your iPod as a Portable Storage Device." (Naturally, you can also play back your recordings on the iPod itself, as you would any audio file.) Once exported, you can edit your recorded file in any audio editing program, such as Apple's GarageBand.

Popular iPod Microphones

Most iPod microphones let you control the type (mono or stereo) and quality (bit rate and volume level) of the recording, and then save the recording as an audio file on the iPod's hard disk or in the unit's Flash memory. Some microphones are monophonic (containing a single mic), others are stereo (with two mics built into the unit), and still others feature jacks for connecting external microphones.

Let's look at some of the available models.

XtremeMac MicroMemo

One of the more unique iPod microphones is the XtremeMac MicroMemo. As you can see in Figure 16.1, the MicroMemo attaches to the dock connector on the bottom of the iPod or iPod nano, and features a flexible, removable microphone and a built-in speaker to listen to the recordings you make.

FIGURE 16.1

The XtremeMac MicroMemo iPod microphone.

The MicroMemo doesn't limit you to its attached microphone. You can connect any external microphone to the unit's 3.5mm mini-jack connector. (XtremeMac happens to sell a neat little lapel microphone, dubbed the MemoMic, that's a good fit with the MicroMemo.)

In terms of recording quality, the MicroMemo offers two different quality levels—Low and High. The Low level records 8-bit audio at a 22kHz sample rate. High level records 16-bit audio at a 44.1kHz sample rate. As you might expect, the two settings result in different file sizes. The Low level requires 2.6MB per minute of recording; the High level requires 10.3MB per minute. Use the High level for better-sounding recordings, but make sure you have enough storage space for longer recordings. All recordings are in WAV-format files.

Different versions of the MicroMemo are available for the fifth-generation iPod and the second-generation iPod nano. Both versions sell for $59.95 and are available from www.xtrememac.com.

Griffin iTalk Pro

Taking a slightly different design approach, the Griffin iTalk Pro also connects to the iPod's dock connector, but uses two miniature microphones built in to the unit's compact case to record in stereo. As you can see in Figure 16.2, the iTalk Pro is very discrete; it looks like a short extension to the bottom of the iPod.

FIGURE 16.2
The Griffin iTalk Pro add-on microphone.

As to sound quality, the iTalk Pro records 16-bit stereo audio at 44.1kHz or 16-bit mono at 22kHz. If the twin built-in mics are not good enough for you, you can connect any external mic to the 3.5mm mini-jack connector on the bottom of the unit.

The iTalk Pro sells for $49.99 and is available from www.griffintechnology.com.

Belkin TuneTalk Stereo

Another high-performance stereo microphone is the Belkin TuneTalk Stereo. It's compatible with the fifth-generation iPod and connects to the bottom dock connector.

As you can see in Figure 16.3, the TuneTalk Stereo contains two small microphones, mounted in the middle of the unit. You can also connect an external microphone via the 3.5mm mini-jack connector. Also nice is the ability to adjust recording levels in real time, using the iPod's Click Wheel controls; the screen displays a useful clipping indicator.

FIGURE 16.3

Belkin's TuneTalk Stereo, connected to a 5G iPod.

You can purchase the TuneTalk Stereo for $69.99 from www.belkin.com.

Belkin Voice Recorder for iPod

If you have a different or older iPod model, check out Belkin's Voice Recorder for iPod. As you can see in Figure 16.4, it's relatively universal in operation, in that it connects via the iPod's earphone jack. It's a mono unit with a built-in speaker for listening to playback of your recordings.

The Voice Recorder for iPod sells for $49.99 from www.belkin.com.

tip Any iPod voice recorder that has an input for an external microphone should also be able to connect to most telephone handsets to record phone conversations. Just use the appropriate connector cable to go from the earphone output jack on your phone to the mic input on the voice recorder accessory.

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FIGURE 16.4

Belkin's Voice Recorder for iPod, a universal add-on microphone.

RECORDING QUALITY

On older iPod models (fourth generation and earlier), Apple limited audio recording quality to a 8kHz sample rate. This sample rate is barely acceptable for voice recording or dictation, and clearly unacceptable for recording music.

With the fifth-generation iPod, Apple opened up audio recording to a full 44.1kHz in WAV format, which is near CD quality. It certainly produces broadcast-quality voice recordings, and quite listenable music recordings. If you're serious about recording, you'll want to trade in your older iPod for a 5G model with this higher-quality recording capability.

Recording Podcasts on Your iPod

Many people use their iPods to record class lectures. Others use them professionally, to record interviews for broadcast or background. Still others use their iPods to surreptitiously record live music at concerts.

All this is great, but there's one more use for your iPod as an audio recorder. If you're at all into podcasts, you can use your iPod as a storage device for any podcasts you record.

Recording in the Field

One advantage to recording podcasts on your iPod is that if you use a compact iPod microphone, such as the MicroMemo or iTalk Pro, you can record your podcasts in the field; recording can take place anywhere you can carry your iPod. (Although, to be fair, you probably want to use a better-quality mic than the ones built in to the snap-on iPod microphones. Look for a good external mic with a mini-jack plug to connect to the snap-on mic accessories.)

When you have finished recording your podcast, just dock your iPod to your PC and transfer the audio files to your computer. Once loaded on your computer, the podcast files can be edited (if you like) and then uploaded to your podcast hosting site.

Recording with TuneStudio

Whether you're recording in the field or at home, you should check out Belkin's TuneStudio, an all-in-one podcast recording/editing workstation that uses the iPod as the host storage device. As you can see in Figure 16.5, you dock the iPod into the TuneStudio, connect your microphone(s), and then start mixing and recording. As a mixer, it's relatively small and lightweight; carry it with you or set it up in your home studio.

FIGURE 16.5
Belkin's TuneStudio, an all-in-one mixing/recording console.

The TuneStudio is a four-channel mixer. You can connect up to four microphones or instruments; two of the mics can use either 1/4-inch jacks or balanced XLR connectors (with phantom power for up to 60dB gain).

Each channel in the mixer has a three-band EQ and recording level and stereo pan controls. There's also a knob for on-the-fly audio compression, and LEDs to indicate master audio level, recoding peak, compression, and recording status.

The audio you mix is fed directly to the iPod for recording and storage. Recording is to a 16-bit, 44kHz-quality WAV file.

And here's something else neat about the TuneStudio. You can connect it to your computer via USB and have it function as an external sound card. This lets you feed the audio from the TuneStudio to your PC for hard disk recording—or the audio from your PC to the TuneStudio be mixed with other inputs.

The TuneStudio sells for a quite-affordable $179.99 from www.belkin.com. It comes bundled with Ableton Live Lite digital audio workstation software for your Windows or Mac computer.

Editing Podcasts on Your Computer

Whether you record your podcasts on your iPod or on your computer, chances are you'll want to do a little editing from time to time. Maybe you want to edit out hemming and hawing or dead space, or add some background music, or even combine two or more separate recordings into a single podcast. Fortunately, you can use just about any audio recording program to perform these editing tasks.

Although really serious podcasters use professional recording/mixing software—such as Cakewalk, Cubase, or even ProTools—this can be overkill when you're talking about low-fidelity voice recordings that will be distributed in compressed MP3 format. Anything too fancy gets lost in the mix.

That said, there are some affordable and easy-to-use audio-editing programs available:

- Audacity (free, audacity.sourceforge.net)
- ePodcast Creator ($89.95, www.industrialaudiosoftware.com/products), shown in Figure 16.6
- PodProducer (free, www.podproducer.net)
- Propaganda ($49.95, www.makepropandana.com)
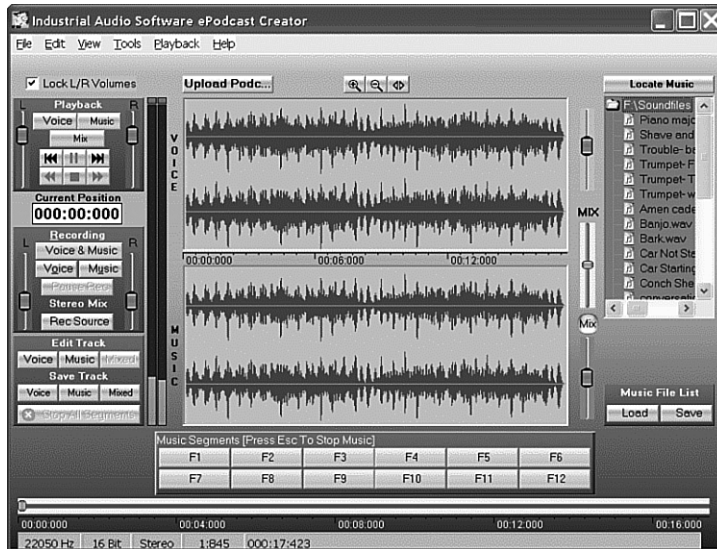
■ WebPod Studio Standard ($89.95, www.lionhardt.ca/wps)

FIGURE 16.6

Editing podcasts with ePodcast Creator.

Any podcast you record on your iPod should be saved in uncompressed WAV format, at the highest possible sample rate, and you should stay in the WAV format throughout the editing process. However, you don't distribute your podcasts in WAV format. Instead, most podcasts are distributed in MP3 (or, for iTunes Store distribution, AAC) format. So after you have your podcast in its final form, you then export the file into MP3 or AAC format. If the podcast is voice only, which most are, a relatively low bit rate (32 or 64kbps) is fine. If the podcast has a lot of music, consider a higher bit rate, up to 128kbps. Make sure you add the appropriate meta tags for all the podcast info, and it's ready for distribution.

tip If you're a Mac user, you can use Apple GarageBand to produce and edit your podcasts. GarageBand is part of the iLive program suite; buy it for $79 from www.apple.com/ilife/garageband.

Distributing Your Podcast via iTunes

After you've saved your podcast (in MP3 or AAC format), you have to get it out on the Internet. And the best place to publish your podcast is via Apple's iTunes Store.

The first step to distributing your podcast is to upload the podcast MP3 file to a server. If you have your own personal website, you can use that server to store your podcasts. You need a fair amount of storage space because audio files can get rather large, depending on the recording quality and length. For example, a 30-minute podcast saved at 64kbps will be about 8MB in size. Use a higher bit rate and the file size goes up accordingly.

If you don't have your own server, consider using an audio blog hosting service, such as Hipcast (www.hipcast.com), Liberated Syndication (www.libsyn.com), Podbus.com (www.podbus.com), or Podcast Spot (www.podcastspot.com). You'll typically pay $5 to $10 per month for file storage, and most of these sites will also help you with the RSS syndication of your podcasts.

Which leads us to the second step of the process, the RSS syndication. This is how you make people aware of your podcasts, and will typically be accomplished via your podcast hosting service. Most blogging software and services can also generate an RSS feed, or you can use FeedBurner (www.feedburner.com) to do the work for you (for free). If you use FeedBurner, you must create a link on your website to the FeedBurner file so that people can find the feed.

Finally, we come to the fun part: sharing your podcast with users of the iTunes Store. To do this, launch the iTunes software, go to the iTunes Store, go to the Podcasts page, scroll to the Learn More box at the bottom of the page, and then click Submit a Podcast. This opens the page shown in Figure 16.7.

FIGURE 16.7

Submitting your podcast to the iTunes Store.

As prompted, enter the URL for your podcast's RSS feed. Click the Continue button and you'll be prompted to provide additional information about your podcast. Once submitted, Apple reviews your request and (assuming your podcast adheres to the site's rules and regulations) adds your podcast to the iTunes Podcast Directory.

And that's that. All you have to do now is wait for users to find your podcasts and subscribe to your feed—then your voice will be heard across the Web!

note To be included in the iTunes Podcast Directory, your podcast must have a title, description, subject, and other similar tags. If your podcast contains explicit language, it should be labeled with the "explicit material" tag. You can submit podcasts stored in either MP3 or AAC formats. Once submitted, your podcasts stay in the directory as long as the RSS feed remains available.