



ThePodcastingEbook.com

Table of Contents

Podcasting Technology

3

5

Podcasting Technology

Recording your podcast is easy when you build a solid studio and use the right tools.

In This Chapter

Basic Podcasting Studio
Computer Based Recording
PC Computers
Mac Computers
Microphones
Lapel Microphone
Dynamic Microphone
Condenser Microphone
Portable Recording Devices
Audio Interface
Recording and Editing Software
Recording and Editing Software for the PC
Recording and Editing Software for the Mac
Professional Recording, Editing, Mixing and Mastering Software for Mac and PC
Audio Routing Programs
Audio Conversion Programs
Hosting Your MP3 Files
FTP Program for File Transfers
FTP Programs for the PC
FTP Programs for the Mac
Summary

Basic Podcasting Studio

Construct a solid podcasting foundation

In an effort to show you the bare essentials, we've compiled a list of items you will need in order to record and publish your podcast today. Podcasting equipment is as simple as a computer, microphone and recording software.

Computer Based Recording

Record using your computer

One of the biggest trends in recent audio production involves **merging digital recording with computer technology**. The recording of audio onto a computers' hard drive allows you to edit and manipulate your sound files. This data can be stored as a sound file such as .wav or .aiff.

There are multiple advantages to recording and editing your podcast using your personal computer.

- The ability to record long and uninterrupted podcasts.
- Digital editing. Quickly and easily remove unwanted background noise or embellish the audio track with music and sound effects.
- Digital Processing. Add effects to your voice, such as reverb, or echo, and master your entire podcast for sonic clarity.

PC Computers

Minimum podcasting requirements for PC

According to Gartner Research, Windows-based PC's account for 90% of all computers world-wide. If you have purchased your personal computer in the last three years and you're running Windows XP, your system should be more than adequate to record an audio file with a microphone, and then save the recording as an MP3 file.

- Personal Computer
- Intel Pentium 4 or equivalent Processor
- Windows 2000 / Windows XP
- iTunes 4.9 for PC
- 1 GB of available disk space
- 512 MB of RAM
- Audio Line In and Audio Line Out

Mac Computers

Minimum podcasting requirements for Mac

Recently with the launch of Apple's iTunes 4.9, it shows that Apple is committed to the digital revolution. Since most iPod owners are also Mac owners there is also a lot of great software available for the Mac platform.

The misconception that the Mac is simply too expensive or that they are only for students and artists is quickly being proven wrong. Apple has recently introduced the Mac Mini, a scaled down version of the Mac that allows previous PC owners to make the switch but still keep their monitor, keyboard and mouse - all for just \$499.

- Mac G3 or better
- Mac OS X
- iTunes 4.9 for Mac
- 1 GB of available disk space
- 512 MB of RAM
- Audio Line In and Audio Line Out

Microphones

Amplify your voice

Whether you are using a Mac or PC, you will need a microphone to record your voice into your computer. One option is to purchase a microphone (or you may already have one) with a 1/8th inch jack. This is the size of the jack or audio line in port on your personal computer.

Lapel Microphone

Multipurpose stereo microphone

Lapel Mic offers the highest quality stereo or mono audio input for recording interviews, lectures and other events. Griffin Lapel Mic features quality stereo sound, a standard 3.5mm stereo mini-jack, and a swivel clip for ease of use.

This multipurpose lapel microphone offers **quality stereo audio input for recording interviews**, lectures and other events. An iPod equipped with the Griffin iTalk voice recorder instantly becomes a mobile recording unit. The addition of a Lapel Mic adds flexibility and ease of use.

Lapel Mic also works with the Griffin iMic and PowerWave for stereo recording and is ideal for voice-recognition software such as iListen.

Lapel Mic is a great new accessory for iPod owners everywhere. For reporters, presenters, and students, our Lapel Mic combines the versatility of the iPod with the comfort and ease of use of a high-quality microphone.

<http://www.griffintechnology.com/products/lapelmic/>

Dynamic Microphone

Marshall Electronics

The MXL2001-P is a great microphone that is capable of handling numerous recording tasks competently. The MXL2001-P is a straight-ahead, plug-and-play type of instrument without any controls whatsoever, yet it records with a nice, open sound that will cut through just about any mix. Such characteristics make this **microphone a good choice for the smaller studio** that focuses most of its efforts on the recording of popular music.

Without getting too caught up in the specs, it is important to note that the MXL2001-P has a single cardioid polar pattern and a frequency range of 30 to 20k Hz. The microphone is phantom-powered so you'll need a small mixer or audio interface with phantom-power. There are no switches for pre-attenuation or bass cut. In terms of workmanship, these products have a look and feel that is the mark of well-made equipment.

<http://www.mxlmics.com/>

Condenser Microphone

Neumann

The TLM 103 is **the ideal large diaphragm microphone** for all professional and semi-professional applications requiring the utmost in sound quality on a limited budget.

By utilizing the tried and true transformerless circuit found in numerous Neumann microphones, the TLM 103 features yet unattained low self-noise and the highest sound pressure level transmission. The capsule, derived from that used in the U 87, has a cardioid pattern, is acoustically well-balanced and provides extraordinary attenuation of signals from the rear.

<http://www.neumann.com/>

Portable Recording Devices

Record on the go

The 20 GB Archos Pocket Video Recorder AV420 is **the ultimate handheld digital video recorder** that offers TV recording and a portable home entertainment center in one pocket-sized device.

It plays MP3 and WMA digital audio files (included protected files) as well as WAV audio.

Archos AV 420, TV cradle with audio/video connections, remote control with 2 AA batteries, protective case, USB 2.0 cable, stereo headphone, manual, AC adapter/charger with US/UK/EU plug.

<http://www.dealazon.com/product/B0002IHP3K>

Audio Interface

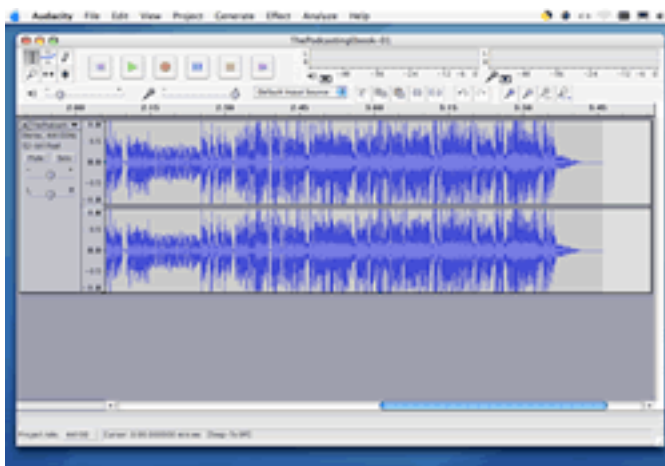
Griffin iMic - USB Audio Interface

The iMic™ **universal audio adapter** is a USB device that adds stereo input and output to your Mac or PC. Connect virtually any microphone or sound input device to your iBook, PowerBook, PowerMac or other Mac or PC with a USB port. Yes, iMic supports both Mic level and line level input. It also supports line level output for connecting speakers or an external recording device.

iMic's audio is superior to your computer's built-in soundcard because it uses USB for the audio signal. USB isolates the audio signal from the noisy electronics in your computer, giving you higher-quality sound when you record and higher-quality sound for external speakers.

The iMic is a must-have device for people who are serious about high quality audio in their computer. But don't take our word for it. Check out some of its reviews to see what others are saying about iMic. Then get iMic for remarkable audio performance over USB.

<http://griffintechnology.com>



Recording and Editing Software

Audacity

Audacity is a **free, easy-to-use audio editor and recorder** for Windows, Mac OS X, GNU/Linux, and other operating systems. You can use Audacity to Record live audio convert tapes and records into digital recordings or CDs, edit Ogg Vorbis, MP3, and WAV sound files, cut, copy, splice, and mix sounds together, change the speed or pitch of a recording, and more.

Download for free:

<http://audacity.sourceforge.net/download/>

Audacity tutorial: http://www.transom.org/tools/editing_mixing/200404.audacity.html

Recording and Editing Software for the PC

Sound Forge

The **award-winning** Sound Forge® digital audio editor includes a powerful set of audio processes, tools, and effects for manipulating audio. Sound Forge software allows you to edit, record, encode, and master nearly any form of digital audio including WAV, AIFF, MP3, and more. Whether you're taking your first steps towards editing audio on your PC, or you are a seasoned audio engineer, there's a Sound Forge product that's right for you.

Download free trial:

<http://www.sonymediasoftware.com/download/step1.asp?catid=1>

Recording and Editing Software for the PC

Cubase

Great **technology at a great price**: that's Cubase SE. Based on Steinberg's renowned Cubase SX, Cubase SE is ideal for anyone who keeps a sharp eye on their finances but doesn't want to do without professional technologies in their home recording, project or pre-production studios.

Download software:

<http://www.cubase.com/download/index.html>

Recording and Editing Software for the PC

Adobe Audition

Designed for demanding audio and video professionals, Adobe Audition offers **advanced audio mixing, editing, and effects-processing capabilities**. Its flexible workflow, combined with exceptional ease of use and precise tools, gives you the power to create rich, nuanced audio of the highest possible quality.

Download free trial:

<http://www.adobe.com/products/tryadobe/main.jsp#product=92>

Recording and Editing Software for the PC

Cool Edit Pro

Cool Edit PRO is the **software solution that will meet your demanding needs**, whether you are an audio engineer, multimedia creator, web developer, or a musician.

Download free trial:

<http://www.softpedia.com/get/Multimedia/Audio/Audio-Editors-Recorders/Cool-Edit-Pro.shtml>

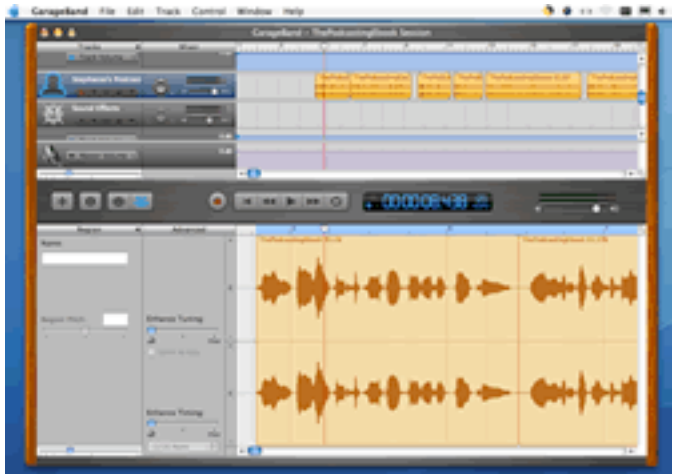
Recording Software for the Mac

GarageBand

GarageBand lets you **easily perform, record and create your own music**. Whether you're an experienced or aspiring musician. Or just want to feel — and sound — like a rock star. With the new version of GarageBand, you can even record multiple tracks at the same time.

Website:

<http://www.apple.com/ilife/garageband/>



Professional Recording, Editing, Mixing and Mastering Software for Mac and PC

ProTools

ProTools offers HD for professional grade studios, and also provides LE editions.

Pro Tools LE and M-Powered Systems With **options to suit any budget**, Digidesign® Pro Tools® LE and Pro Tools M-Powered™ systems offer everything you need to create and produce music with professional results. Whether you're looking for an all-in-one audio/MIDI solution with an integrated control surface or simply a highly portable Pro Tools system, there's a powerful solution designed to satisfy your creative needs.

Audio Routing Programs (optional)

Virtual Audio Cable

Virtual Audio Cable is a Windows **multimedia driver allowing you to transfer audio (wave) streams from one application to another**. It creates a pair of Wave In/Out devices for each cable. Any application can send audio stream to Out device, and any other application can receive this stream from In device. All transfers are made digitally, providing no sound quality loss.

Website:

<http://www.ntonyx.com/vac.htm>

Audio Conversion Programs (optional)

iTunes for the Mac and PC

If your audio recording program only exports a WAV file, you will need an audio conversion program. **The easiest way to convert files into an MP3 is using iTunes.** Chapter 9 has tutorials that cover how to convert audio that is on a CD into an MP3, and also how to convert from a WAV file to an MP3 file.

Website:

<http://www.apple.com/itunes/>

Hosting Your MP3 Files

A home for your podcasts

When hosting your the MP3 files of your podcast, you will need to decide if you will host the MP3's using an all-in-one service or take the do-it-yourself route and host the files on your own web server.

Below, you will find a directory of companies that will host your MP3's.

FTP Program for File Transfers

Upload and download audio with FTP programs

FTP or File Transfer Protocol is an Internet protocol, and one of the most useful services on the Internet. It refers to the method by which you transfer data and program files between two computers connected to the Internet. Access can be restricted only to a local, or selected group of users who have been granted a username and password to access a web server. When an FTP server has an access restriction, it requires a username and password before allowing access to its files.

Your web hosting service will provide you with FTP access to your web server. FTP is the means of copying a file, in this case an MP3 from your personal computer to your web hosting service and as a result, making your podcast available on the Internet.

FTP Programs for the PC

Cute FTP

The World's favorite FTP client. Once connected, Cute FTP Home can be directed to transfer data between your PC and the web server of your choice.

Website: www.cuteftp.com/

Prima FTP

Automated FTP Client by PrimaSoft PC.

Website: www.primaftp.com/

FTP Programs for the Mac

Fetch FTP

Fetch is a Macintosh program for transferring files over networks, such as the Internet, using the File Transfer Protocol (FTP) or SSH File Transfer Protocol (SFTP). Fetch 5 includes all the standard features of a modern FTP/SFTP client, presented in a user interface that is simple and easy to use.

Fetch can be used to:

- Publish a website at a web hosting provider.
- Rename, move, delete, and change the permissions of files on a web server in order to maintain a website.
- Publish images for eBay auction listings.
- Transfer documents to a printing company or service bureau.
- Submit advertisements to newspapers and magazines.
- Move files between your Macintosh and other computers or specialized equipment.

Fetch is compatible with a wide range of FTP and SFTP servers, from mainframes and high-end servers to Macintosh, UNIX, Windows, and Netware computers, and even servers in prepress systems, image editing systems, photo processing equipment, and medical imaging systems.

Fetch 5 runs on Mac OS X 10.2.4 or newer.

Website: <http://fetchsoftworks.com/Fetch5Tour/>

Captain FTP

Powerful, secure, user-friendly, FTP/SSL-FTP/SFTP client with flexible tabbed interface complementing file-sharing for authorized users in an attractive metal interface. Simple navigation with Quick Connect, drag-and-drop, virtual folders, finder sidebar, aliases, and built-in internal viewers for movie, picture, sound and PDF. Comprehensive functionality with Transfer Manager including transfer scheduling, accelerated transfers, resuming, auto-reconnect, synchronization, AppleScripts, file privileges, large file support (2GB) and edit files remotely. **Localized versions available in English, German, French, Japanese, and Chinese.**

Download a Free Trial:

http://www.apple.com/downloads/macosx/internet_utilities/captainftp.html

Summary

Key points about podcasting technology

In this chapter, we looked at many different tools to help you record your podcast. As you've just learned, a podcasting studio can be setup using free tools from the Internet and your existing computer system, or for a modest financial investment, you can opt to build a professional-grade recording studio. Here is an outline of both a basic and professional studio setup.

Basic Podcasting Studio

- Personal Computer
- USB-microphone or portable voice recorder
- Recording and editing software
- Web hosting service to host your MP3
- FTP software to transfer your MP3 to the Internet

Professional Podcasting Studio

- Powerful personal computer
- Dynamic or Condenser vocal microphone
- Audio interface such as Digidesign's Mbox
- Industry-standard ProTools recording software
- Dedicated web server from a web hosting service
- FTP software to transfer your web server MP3's and distribute them on the Internet