

"Remember, high-tech means breaks down next week, while cutting edge means breaks down this afternoon."

Breaking the Sound Barrier on the Web

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Objectives

- Explain the rationale behind Web-based multimedia, including challenges and benefits
- Discuss hardware and software options and tips for authoring audio
- Describe how to put media files online for either download or http streaming

How to Build a Multimedia Website for Language Study. *The Internet TESL Journal*, 8(2). Available: <http://iteslj.org/Techniques/Davis-MultimediaSite/>.



General Principles of Web-based Materials

- Potential audience of materials extends beyond the bookstore and the traditional language classroom
- Ability to modify, adapt, and even discard materials with the times
- World-wide collaboration with other educators and learners in the refinement of materials



Technology: Utopia or Chaos?

utopia

noun

(the idea of) a perfect society in which everyone works well with each other and is happy

What has your experience been like?

chaos

noun

a state of total confusion and lack of order



Advantages of Web-based Multimedia

- 24-hour access “anywhere, anytime”
- Manageable file sizes
- Platform independence
- Development speed and content adaptability
- Interactivity with captions and slide shows
- Online media libraries for providing remote access for students to classroom materials
- Wider choice of media players, including those specifically design for language learners



Challenges of Web-based Multimedia

- Limited or restricted access to the Internet
- New technology can overwhelm the user and developer
- Pages/media not created for all visitors
- Pages load too slowly due to net congestion of limited bandwidth
- Issues regarding the distribution of copyright material and protection of your own work



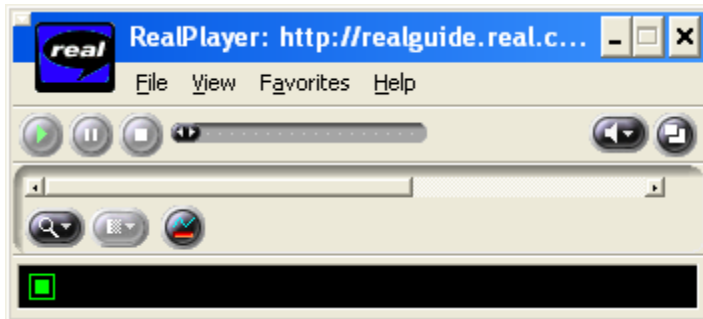
Development Process

- Decide on the objectives and goals of the site
- Survey any existing sites with similar goals
- Examine the feasibility/limitations of technology
- Record, edit, and play multimedia content
- Encode and deliver files on the Internet
- Select media players



Media Formats

RealMedia
Flash
Windows Media
QuickTime
MP3



MPEG-1 Audio Layer-3

Recording Environment

- Minimize noises coming in
- Reduce echoes and reverberation
- Use a homemade pop screen for noise suppression of aspirated sounds



Audio Recording

- Sound Card
- Microphones (uni-directional, omni-directional, built-in, and condenser microphones)
- Audio-output devices (headphones, internal and external computer speakers, and LCD projector speaker)
- Insulated audio and video
- Basic microphone mixer



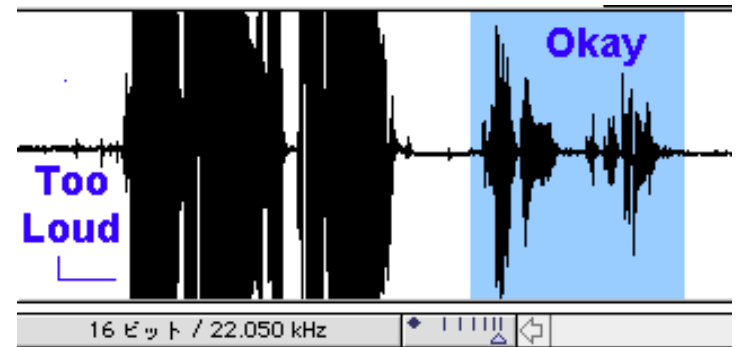
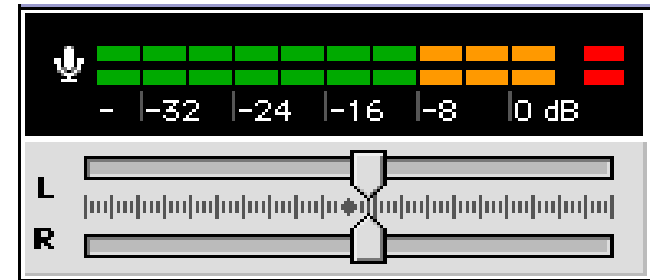
Low-budget Recording Model

- Any PC computer with a basic, integrated sound card.
- Use system recording utility (Sound Recorder) to create source media files, or encode directly to MP3.
- Record with an omni- or uni-directional mic, or condenser mic.

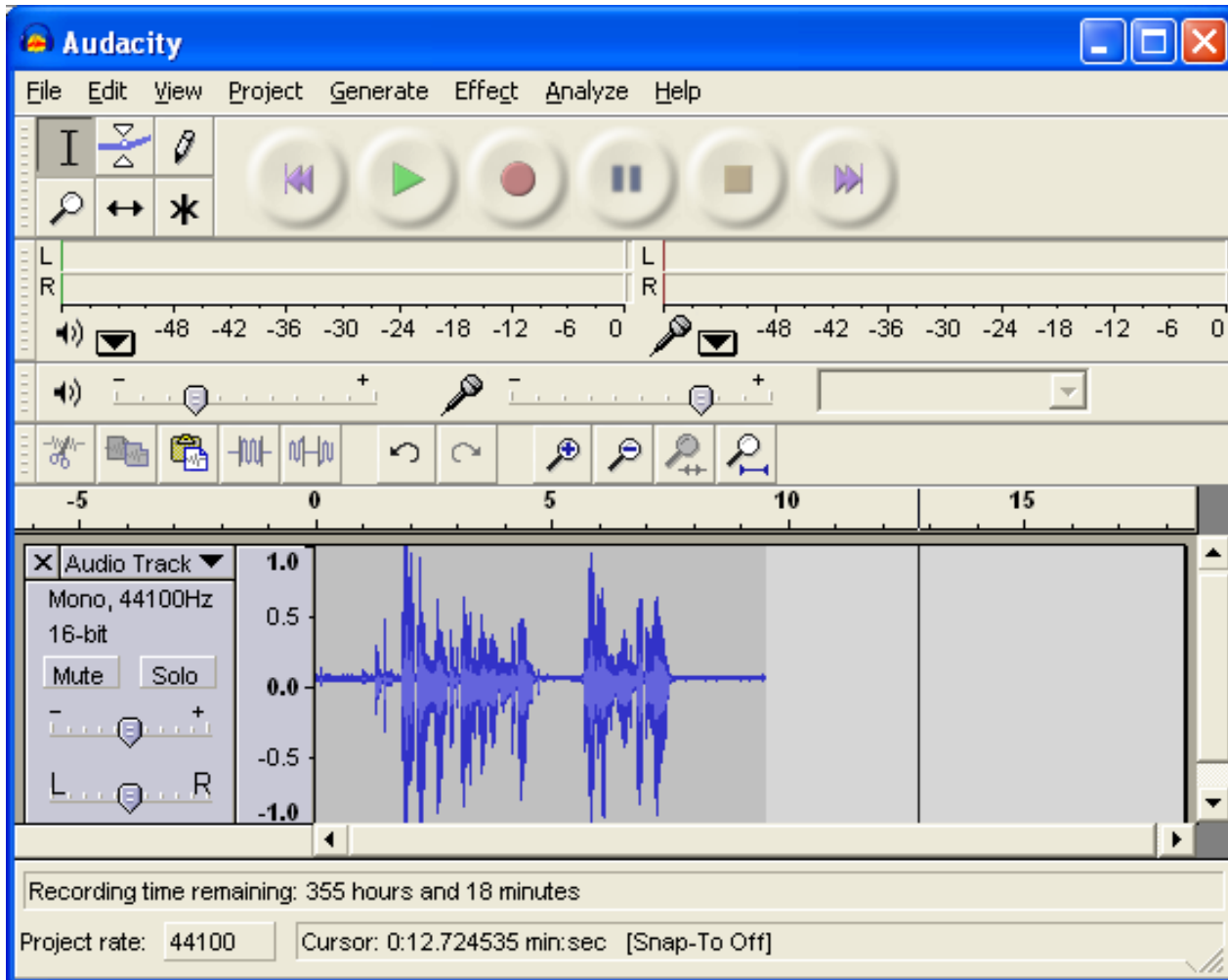


Recording Source Material

- Avoid background noise and equipment vibrations
- Select the Best Sampling Settings
- Adjust volume levels to avoid clipping and distortion
- Record
- Save Raw Sound File
- Edit as Needed



Audacity - <http://audacity.sourceforge.net/> (Windows and Mac)



Creating a Metafile

Web page link

You can stream your .wma files by creating linking the Web page to the media file by using an intercessory metafile.

Part II

Metafile (.wax)

```
<ASX VERSION="3.0">  
<ENTRY>  
<REF HREF="http://www.trainyouraccent.com/audio/a-breakfast.wma"/>  
</ENTRY>  
</ASX>
```

Audio file
(.wma)



Hosting Your Website

- Shared versus dedicated servers