

## Basics of Digital Audio Recording

- Chuck Johnson, Mindware Music Inc./ePiano  
*"Digital Audio is now THE primary means by which sound is recorded and shared throughout the world."*
- Pat Fitzpatrick, Lowell High School Music Dept.  
*"The kids have so much fun, they don't know they're learning"*

---

---

---

---

---

---

---

---

## Digital Audio - You can do it:



- Not just for engineers, studios and geeks.
- The Internet has made distributing your sound/music/speech to the entire world immediately feasible.
- Chance to introduce History, Piano, Dynamics, Form and More

---

---

---

---

---

---

---

---

## Audio vs. MIDI

- MIDI is a coded version of a musical score – not sound



The old time piano roll is very similar to MIDI.

---

---

---

---

---

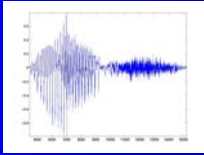
---

---

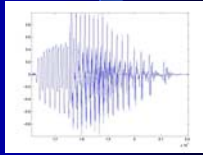
---

## Audio vs. MIDI

- Audio is the Sound "wave" captured



"yes"



"no"

Copyright Mindware Music Inc. 2007



---

---

---

---

---

---

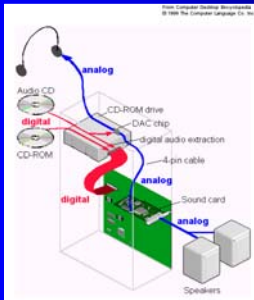
---

---

---

---

## Analog Audio vs Digital Audio



- Great explanation at: <http://www.blazeaudio.com/howto/bg-digital.html>

Copyright Mindware Music Inc. 2007



---

---

---

---

---

---

---

---

---

---

## Essential Tools for Digital Audio

- Computer
  - PC or Mac
- Microphone
  - Even "cheapies" will work
- Speakers or Headphones
  - Mic Headset is a good alternative
- Software – the big choice....

Copyright Mindware Music Inc. 2007



---

---

---

---

---

---

---

---

---

---

## Software is the key:

- PC
  - FREE: Soundrecorder – already there.
  - FREE: Audacity: <http://audacity.sourceforge.net/>
  - Simple Digital Audio Recorder (bundled w/ Creative Labs)
  - WaveEditor (bundled with Creative Labs)
  - Cakewalk or “power” Sequencers/DAWs
  - Others - there right answer is the one you know how to use
- Mac
  - Garage Band
  - Audacity

Copyright Mindware Music Inc. 2007



---

---

---

---

---

---

---

---

## Let's Do it!

- Basic Steps
    1. Choose where to Record From Source
    2. Confirm Level
    3. Record/Stop
    4. Save file: .wav or .mp3?
- Optional:
- Burn to CD?
  - Network, email, website, Flash, YouTube

Copyright Mindware Music Inc. 2007



---

---

---

---

---

---

---

---

## Examples from the Real World of Lowell High School:

- Starting Fall 2006, New Course: Digital Audio Production:
  - *"This course (formerly electronic music) will give hands on experience in producing digital music for various applications such as digital media (CD/DVD) and the Internet. Students will produce their own original content and record music using current software and hardware in the school MIDI Music Lab."*

Copyright Mindware Music Inc. 2007



---

---

---

---

---

---

---

---

## Lesson: Musique Concrete:

- Music History and Technology
  - Results: Non demonstrative student used sounds from Soundsetter, piano sound, drums
- Narong's Song.



Copyright Mindware Music Inc. 2007



---

---

---

---

---

---

---

---

## Lesson: Minimalism:

- Learn how to put a drum track together.
- In Cakewalk - MIDI drum track.
- Add 5 or 6 more tracks.
- Example: Ryan's Song



Copyright Mindware Music Inc. 2007



---

---

---

---

---

---

---

---

## Lesson: Commercials:

- Took an online audio commercial - Pepsi for instance
- Listened to the original and then created their own.
  - Voice over and Music - unlimited options.
- Example: Seth's clip.

Copyright Mindware Music Inc. 2007



---

---

---

---

---

---

---

---

## Questions?

- Further resources and materials at [www.epiano.com](http://www.epiano.com)

**Thanks for joining us.  
Enjoy!**

Copyright Mindware Music Inc. 2007



---

---

---

---

---

---

---

---