American Guild Of Organists
Technology Committee

Recording and Editing with Digital Media

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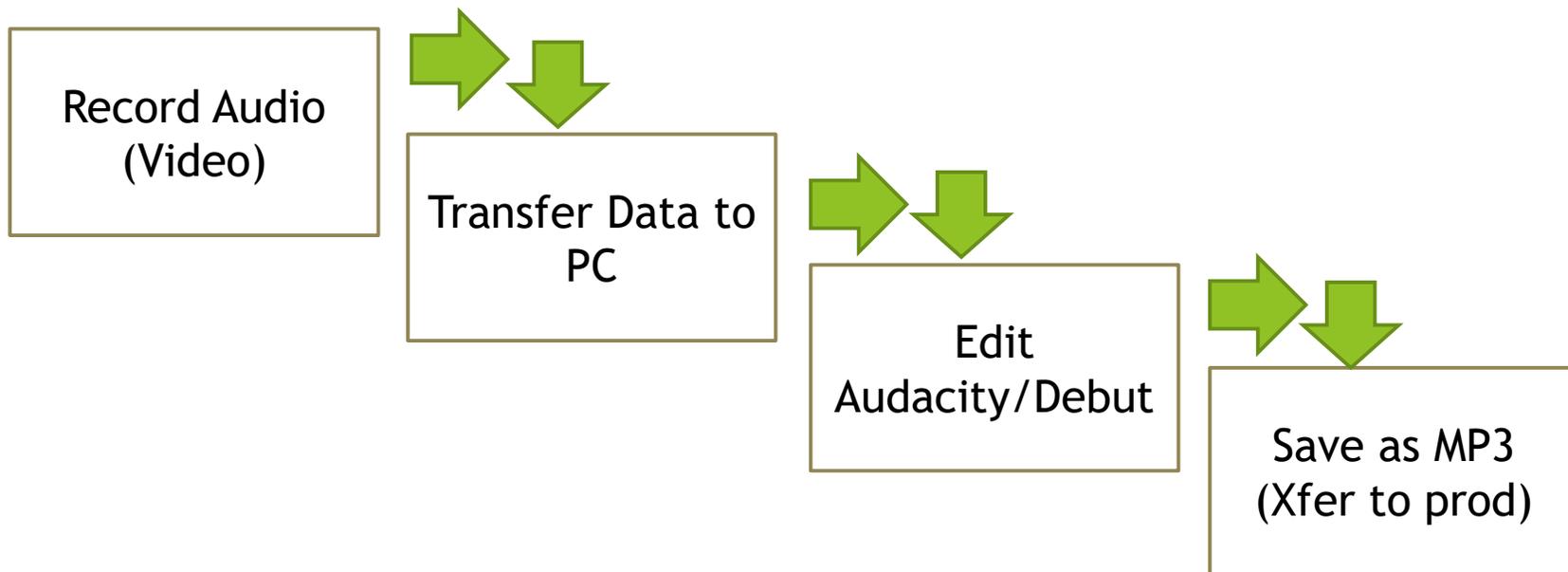## Recording and Editing with Digital Media

- **Basic Techniques:**
  - Record
  - Transfer digital recording to a PC
  - Edit Recording
  - Save as MP3 file

- **Walk through process and then demonstration**

Recording and Editing with Digital Media

▶ **Process Flow:**

Record Audio
(Video)

Transfer Data to
PC

Edit
Audacity/Debut

Save as MP3
(Xfer to prod)

Recording and Editing with Digital Media

▶ **Two Methods of Recording:**

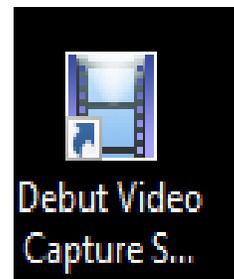# Recording and Editing with Digital Media

▶ **Software for transfer and editing**
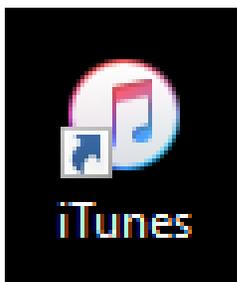
Transfer from
Iphone to PC
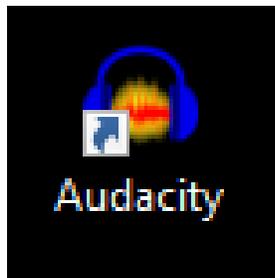
Video Edit

Audio
Edit/Merge

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- ▶ Iphone -- Use Voice memo to record
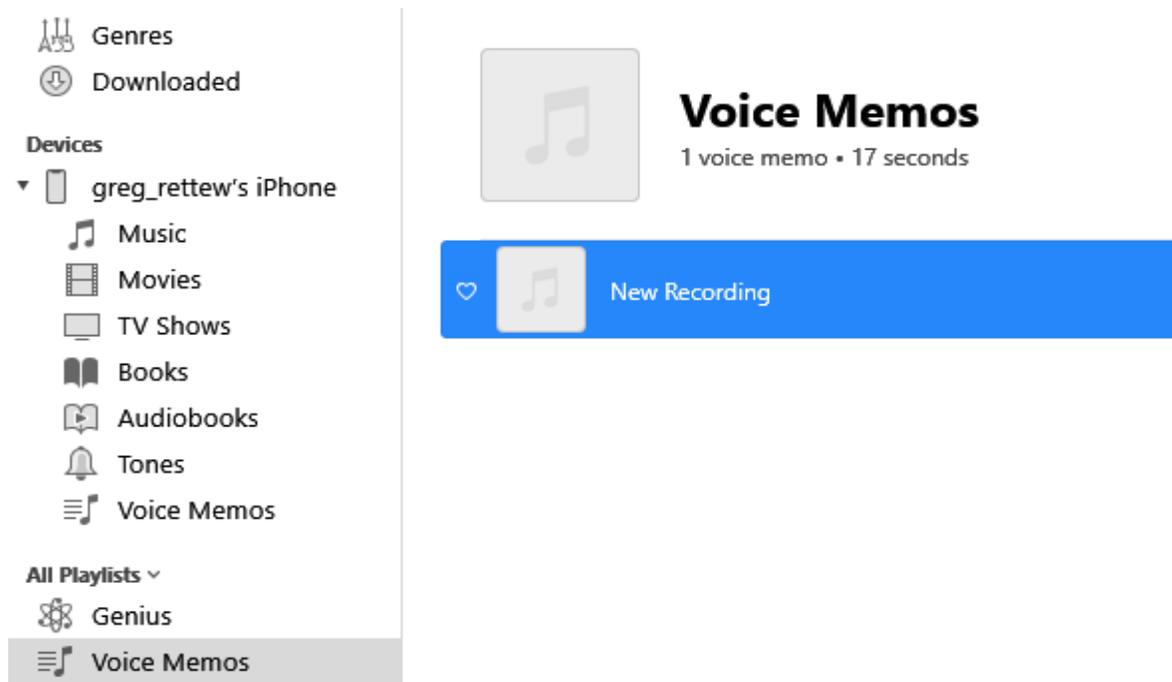 - ▶ Moderate quality using internal microphone
  - ▶ Not Stereo!

- ▶ Itunes to transfer data to PC
  - ▶ Hook up iphone to PC (via USB connection)
  - ▶ Run Itunes (make sure you can see the phone!)
  - ▶ Sync iphone in Itunes
  - ▶ Then voice memos available via All Playlists (Voice Memos)
  - ▶ Right click and copy, then paste into work directory

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Recording and Editing with Digital Media

▶ Itunes screen display showing Voice Memo

Genres
Downloaded

Devices
▼ 📱 greg_rettew's iPhone
   🎵 Music
   🎬 Movies
   📺 TV Shows
   📖 Books
   🎧 Audiobooks
   🔔 Tones
   🎵 Voice Memos

All Playlists ∨
   ⚛ Genius
   🎵 Voice Memos

Voice Memos
1 voice memo • 17 seconds

♡ 🎵 New Recording

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Recording and Editing with Digital Media

- ▶ **Tascam DR100-mkiii PCM Recorder**
    - ▶ Costs $300 (Amazon), $20-100 for accessories
    - ▶ Can record stereo at SA-CD quality (at near studio quality with internal mikes)
    - ▶ Has internal Uni/Omni directional mikes
    - ▶ Writes data onto SD card as .wav file (can also write an MP3 file directly as backup)

- ▶ **Record - Transfer data:**
    - ▶ To record – hit record button once for level check, again for record, then stop button to stop
    - ▶ Turn recorder off after recording complete
    - ▶ Remove SD card
    - ▶ Insert into SD card reader (attached to PC – via USB port)
    - ▶ Copy desired .wav file (from DR-100mkiii) drive to work directory

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▶ Tascam Transfer Disk on PC
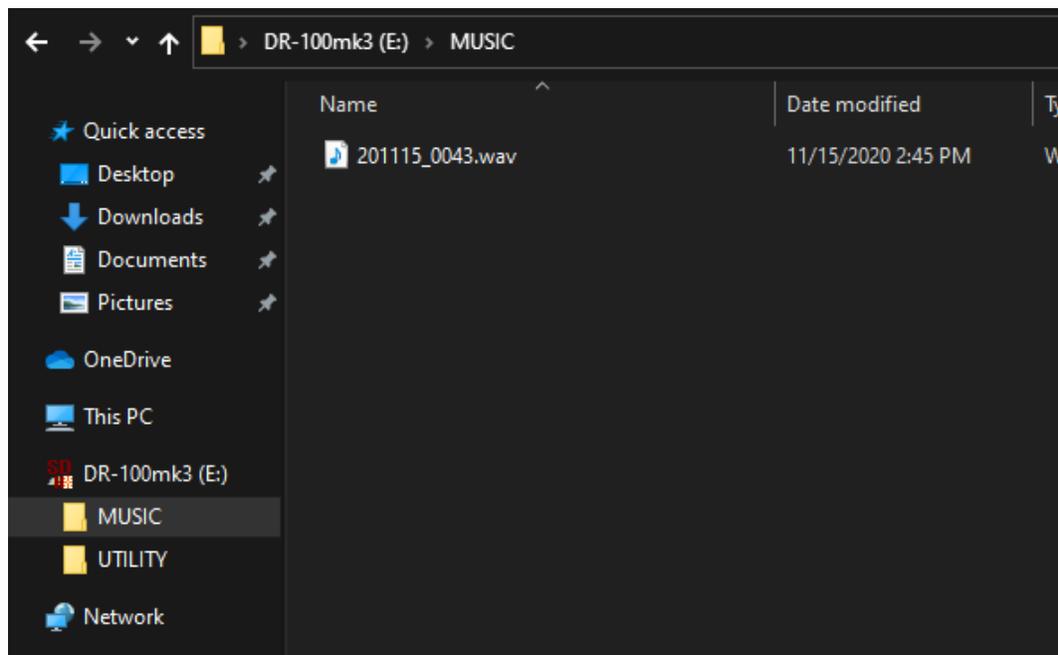
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Recording and Editing with Digital Media

► **Editing digital audio file**

► Use audacity

   ► (can be found on the net by searching for best free audio editing software for windows)

   ► Note: Apple m4a audio files may require additional driver downloads

► Clean up basic recording

   ► Remove whitespace

   ► Add Equalization (if desired)

   ► Add reverb (if desired)

   ► Listen / save

Recording and Editing with Digital Media

▶ ## Editing digital audio file (2)

▶ Merge in voiceover audio file

  ▶ Add new track (Tracks -> Add new -> Stereo track)

  ▶ Open secondary audio file

  ▶ Copy desired portion to new track

  ▶ Align second track to desired start over primary track (Tracks -> align -> start to cursor/selection start)

    ▶ Fine alignment requires use of start and end timers at bottom of screen

  ▶ Bring Voiceover to forefront (View -> Mixer board … adjust volume of voiceover)

  ▶ Listen

  ▶ Export as MP3 (Note! – this combines both streams into one stereo stream)

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▶ General Recording/Editing considerations

▶ Levels

▶ Keep VU around -6 dB

▶ At 0+ dB distortion starts (on digital recorders)

▶ Level too low (-20 dB) allows amplifier noise, converter (non-linearity) artifacts, and creates poor sound stage

Recording and Editing with Digital Media

▶ **General Recording/Editing considerations (2)**

▶ **Miking/Mike Placement**

- ▶ Use Uni mikes for instruments, instrumental solos
- ▶ Use Omni mikes for choral work
- ▶ Place recorder close enough to get reasonable volume to mikes, but at the same time not so close that blend disappears
- ▶ Microphone Technologies
  - ▶ Condenser, Dynamic, Ribbon
  - ▶ Dynamic most prevalent
  - ▶ Condenser more studio oriented for detail

Recording and Editing with Digital Media

▶ Demonstration on PC

  ▶ Show transfer from Tascam to PC

  ▶ Cleanup audio file

  ▶ Add Voiceover to audio file

  ▶ Export as MP3

Recording and Editing with Digital Media

▶ Video editing -- Basically the same process

- ▶ Good Video all about composition
- ▶ ¼ second black up, black down for start/stop
- ▶ Talking heads – need reasonable (not busy) background

- ▶ Editing Can be more involved – two streams (video/audio) – that are only synced at certain points – this is to facilitate multi lingual recordings
- ▶ Can produce curious results
- ▶ Generally need more computing horsepower for video editing

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Recording and Editing with Digital Media

▶ Concluding Remarks

- ▶ Keep software and hardware up to date

- ▶ Good Luck in your recordings

- ▶ Let me know if you have questions