

Overview

Digital Acoustics' IP Endpoints play wav files with a format of mono, 16-bit uLaw, with a sample rate of 8000. Any audio editing program that can create or convert audio files to this format can be used. This application note uses Audacity V1.3.14 (Open source - downloadable) to demonstrate how to create a new voice recording and guidelines for converting an existing audio file to the proper format.

Audacity Setup

Set the preferences by selecting menu option Edit - Preferences

• On the Devices section, make sure that Channels is set to 1 (Mono)

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	Playback Recording Quality Interface Tracks Import / Export Extended Import Projects Ubraries Spectrograms Directories Warnings Effects Keyboard	Host: MME Using: PortAudio V19-devel (built Dec 7 2011 23:30:26) Playback Device: Plantronics Savi 7xx Recording Device: Device: Plantronics Savi 7xx Chagnels: 1 (Mono)

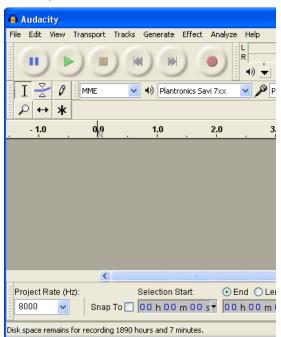
On the Quality section,

- Set the Default Sample Rate to 8000Hz
- Set the **Default Sample Format** to 16-bit

 Click the OK button to close the Preferences
Preferences: Quality
Devices Sampling Playback Default Sample Rate: 8000 Hz Recording Default Sample Rate: 8000 Hz Outlity Default Sample Rate: 8000 Hz Interface Real-time Conversion Tracks Sample Rate Conversion Sample Rate Conversion Sample Rate Conversion Extended Import Dither: None Projects Dither: None Directories Sample Rate Converter: High-quality Sinc Interpolation Warnings Dither: Shaped Keyboard Moricea

Creating Audio Files

Audacity is now set to record audio.

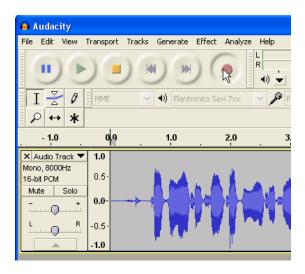


- Make sure the **Project Rate (Hz):** in the lower left hand corner of the screen is set to 8000
- Press the Record button and begin speaking into the microphone on the PC



• The recorded wav file starts appearing on the screen. Press the Stop button when finished recording





Please note the following:

- Look to the left of the recording to verify the type Mono, 8000Hz, 16-bit
- The audio should be concentrated between .75 and -.75 on the left hand scale
- It is OK if some peaks go above or below these values, but the closer the audio gets to 1.0 or -1.0, it may begin to clip when played on the IP Endpoint

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To save the recorded file,

- Select menu option File → Export...
- Enter a File name
- In the Save as type drop down box, select Other uncompressed files

File name:		*	Save
Save as type:	Other uncompressed files	~	Cancel
			Options

Press the **Options** button

- For the **Header** drop down box, select Wav(Microsoft)
- For the **Encoding** drop down box, select U-law
- Click the **OK** button

Specify Uncompressed Options 🛛 🛛 🛛 🛛			
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Header:	WAV (Microsoft)		
Encoding:	U-Law		
(Not all com	binations of headers and encodings are possible.)		
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Converting Existing Audio Files

If existing files need to be converted into the proper format, keep the following in mind:

- For stereo recordings, use the menu option Tracks → Stereo Track to Mono
- For files with a higher sample rate, use the menu option **Tracks** → **Resample...** and set the **New sample rate (Hz):** to 8000
- To set the audio to the correct volume level, use menu option Effect → Amplify... and increase or decrease the volume level by specifying a positive or negative value for Amplification (dB):
- If the wave forms have peaks are very close to 1.0 or -1.0, use menu option Effect → Normalize... with a value of -1.0 dB to eliminate any clipping
- Make sure the **Project Rate (Hz):** in the lower left hand corner of the screen is set to 8000
- To save the file,
 - Select menu option File → Export...
 - Enter a File name
 - In the Save as type drop down box, select Other uncompressed files

File name:		✓ (Save
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Press the **Options** button

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