

ExplorNet's Digital Media I



Objective 104.01 2%

Explain concepts used to create digital audio.

Digital Audio

- Sound that has been captured, created, or edited electronically by a computer.
- Analog (non-digital) audio sources are converted to a digital format by a process called sampling.
- Sampling reproduces a sound wave by recording many fragments of it.
- In media production, sound and music are crucial to helping to establish moods and create environments.

Channel Number

The amount of individual audio channels used during playback. The more channels of audio, the more realistic the sound.

- Monaural (Mono)
 - All sources of audio play out of one single channel.
- Stereophonic (Stereo)
 - Audio sources can be separated into two different channels (left and right).
- Surround Sound
 - Multiple audio channels; usually 5-7 channels.

Streaming Audio

Transmitting audio files that can begin playing over the Internet as the remaining data is still being downloaded.

- Creates little to no wait time to begin hearing the audio file.
- Example of websites that use streaming audio technology include Pandora, Spotify, Grooveshark, etc.

Audio File Formats

- .MP3
 - Most popular audio file format.
 - Standard for downloading and storing music.
 - Commonly used for streaming over the Internet.
- .WAV
 - Standard file format for PCs.
 - Native sound format for Windows environment.
- .WMA
 - Uses Windows Media Player for audio playback.
 - Microsoft format used for streaming audio files.

Audio File Formats

- .MIDI
 - Musical Instrument Digital Interface
 - Standard file format used by digital instruments (keyboards, guitars, etc.).
 - Contains information about musical notes.
- .AAC/.M4A
 - Standard file format for Apple Computers.
 - Higher quality sound than .MP3.
 - Standard file format used by mobile devices.