

Unit 5.1: Digital Audio

Before we discuss about how to digitize analogue into its digital version, you have to understand a very general concept on how sound is created.

Why? because, how you use the power of sound can make the difference between an ordinary multimedia presentation and a professionally done one.

Misuse of sound, can bring disaster to your dreamt multimedia project.

As you have known, sound is a type of wave that is propagating through the air.

A process called sampling is needed if you want to record a digital audio.

Two factors have to be taken into account while digitizing the audio is sample rates and bit depths.

To make sure that you have the best audio quality these two factors must be at the highest level as possible.

Sound includes general-purpose audio, music, and speech.

Digital audio can be applied in many different areas. One of the main areas is music production.

For example, sounds created by original musical instrument such as piano can be produced using the sound synthesizer.

The sound being produced by this technology is almost the same as being produced by the original instrument, if not better.

Today with digital audio technology, the quality of recorded sound has been tremendously improved.

Songs, music, and sound effects in our daily life are in the analogue form. However, computers can only detect digital signal.

To make your analogue sound to be applicable in computers, you need to convert them into the digital form.

The Analogue to Digital Converter (ADC) is used to convert analog sound into digital form.

The digital sound is then kept in computers as a digital audio file format such as WAV or MIDI. This process is called digitization of sound.

Now you can keep your favorite songs as a computer file or document.