

COMPUTER TECHNOLOGIES FOR MUSIC PRODUCTION

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Nowadays music has become an integral part of the modern society life. A vast majority of young people and adults spend nearly 60% of their day listening to it despite of time and place.

Music production today is a really complicated process which requires not only excellent musical skills but also great technical ones and deep knowledge of special sound production equipment. Moreover, the physical peculiarities of the sound nature should be also taken into account. Thus, it is obvious that training of sound engineers and production sound mixers and recorders takes years, and even then you can't be sure that you know everything in this field.

Today computer technologies gives us lots of opportunities in order to ease the process of music production, but at the same time, offering lots of applications and functions, they make it more and more sophisticated and complicated.

These days, since recording studios are almost all digital, the first thing that is obviously could be found in every studio is a computer and a digital audio workstation (DAW), that is the primary software used to record, edit and mix music. Thus, it provides with the possibility of maintaining all the processes from the initial stage to the final one with receiving a complete music file.

There are lots of various applications and digital audio workstation software which can be purchased from official websites such as Ableton Live, Logic Pro, Pro Tools, FL Studio, Cubase, etc. All of them are rather similar because they base on the same principles, the only difference between them is the number of functions and the design of their interfaces.

The order of writing a full track using the DAW is the following [1, p.63]:

- Selection of tempo (number of beats per minute)
- Recording live instruments or writing notes manually using virtual instruments (guitars, keys, drums, synthesizers, etc.)
- Record vocals (optional).
- Processing (improvement) of sound for each instrument individually or in groups
- Mixing – the process of creation the structure of the future song by arranging the recorded sounds on the timeline (intro, chorus, couplet, chorus, etc.)
- Processing of sound tracks for harmonious and qualitative sound, volume control for each instrument.
- Mastering - the final equalization (frequency adjustment), compression (for a holistic and rich sound), dynamic processing (stereo panorama width), final work with the volume of the entire track, limitation (cutting too high frequencies that the compressor did not affect).

Not only live instruments but also virtual ones (VST, AUX) are used for recording and processing. This function is often carried by software that is embedded in DAW [2].

In conclusion it should be pointed out that music production today is much more available that it was some decades ago. The only thing you really need is patience, persistence and a great desire to make this world better with your music.

References

1. Bevins G. Computer technology in modern music : a study of current tools and how musicians use them. *Capstone Projects and Theses*. 2013. p. 367.
2. How Technology Has Changed Music Production: website. URL: <https://www.jmccademy.edu.au/news/how-technology-has-changed-music-production> (Last accessed 1.10.2019)

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