Recording Music Software and Technology in India

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Abstract— The computer science and music combined major with concentration in music technology focuses on the creative application of digital sound technologies to a broad range of artistic, social, and industrial purposes. An emphasis is maintained throughout on imaginative exploration, collaboration across disciplines, and real-world experience. It has been seen that Music Software have profound impacts on education involving music and creative expression. Musical software has become an outlet for people who do not bond with traditional musical instruments, giving people new and easier ways to compose and perform music in ways that has never been seen before. In this paper I have tried to give the introduction of recording music software and also have mentioned some music recording software used in India.

Index Terms— Music, Software, technology, Music studio, Music workstation

I. INTRODUCTION

At its most basic level, music is sound. So, we have to start by considering how sound is created. Sounds are formed by vibrations or the shaking, of particles of matter. Go ahead and clap your hands, or shout, or whistle. What's happening is that you're finding different ways to create vibrations, and hearing the resulting sound waves, the disruptions in the air created by the energy of vibrating particles. Technology is becoming more and more important within the world of music production. Any kind of music that is recorded for the purpose of being shared is being produced. There are more programs that will help to speed up a tempo, compress some of the sounds, and even remove some of the background noises.

II. MUSIC SOFTWARE

Music software is software used for musical composition, digital recording, the creation of electronic music, and other musical applications. Music software has been around for nearly 40 years. Music software development dates back to the 1960s and 70s. While this software was at best primitive, it nonetheless helped lay the foundation for the future development of the software and synthetic musical production. The early music software was run on large computers at several universities such as Stanford and Penn State. Much of what development came to music software came as a result of the continuous improvement to computers over time. Chain of development is seen clearly in 1978 when nearly 50 music programs came out as a result of MIDI technology, a form of computer communication still used today. MIDI technology provided the key link in hardware for musical software, giving a person a tactile control of an instrument and playing directly into the software in the computer and allowing for maximum control of the production. Fourth generation music software came out in the early 1990s. The largest improvement with this software was the addition of more detailed displays allowing the music software to show more on the screen making the program much easier to use and understand.

III. DIGITAL-AUDIO WORKSTATION (DAW)

A digital audio workstation is essentially a blank piece of paper and the necessary paint brushes for an artist to create their works of art on. All you need to bring is some sounds, your talent, and most of all, your creativity. A DAW is a computer program designed for editing, recording, mixing and mastering audio files. You can record your various instruments, MIDI controllers and vocals, lay down the tracks, rearrange, splice, cut, paste, add effects, and ultimately finalize the song you've got cooking for the world to hear.Professional, semi-pro and home studios use DAWs as their backbone for making music if their main focus is to have a digital setup. Aside from those who use real instruments, we do know of some well-known musicians who still use analog setups, such as drum machines and synthesizers with real mixing boards and the like, but a majority of people nowadays are strictly computer-based or at least have a hybrid studio to incorporate both (why not?). This trend only continues to grow as technology advances. Aside from a computer or laptop for music of course, a DAW is the most important piece of production gear you'll need to get the ball rolling for those masterpieces waiting to be created.

IV. RECORDING MUSICSOFTWARE IN INDIA

This is a list of software for creating, performing, and learning, analyzing, researching, broadcasting and editing music. Followings are some world famous recording Music Software which are used in Indian Music Industry and by music artist as well.

FL Studio

This is one of the best DAWs for those looking to start out and get their feet wet in the music making world. FL Studio by Image-Line has been out and about for quite some time, being one of the most popular software to date. It's got your standard protocol with pitch shifting, correction, time-stretch, cut, paste and the works, but it's interface is especially well-suited for the beginner. It'll take a

little bit of reading to start going, but once you've got the hang of it you're good to go. Their latest version includes over 30 synth software for out-the-box usage, so if you've just purchased a controller and want some sounds to starts fiddling with you don't have to spend much money.

You can use MIDI keyboards, record into it with a microphone, do your standard editing and mixing — it just gives you what you essentially need in music software with a simple interface. There are some advanced features as well, so once you become familiar with it you can delve further into these to attain a solid learning curve for the future, too. It's very user-friendly, especially with adding some virtual instruments and playing them on MIDI.

Apple Logic Pro X

This is an amazing digital audio workstation, particularly for those with a Mac (not compatible with PC). What stands out with Logic Pro is the interface — very advanced to help with the music making process by including track consolidation (track stack), instrument layering, an intuitive mixer for plug-in control, and a ―score editor‖ to allow you to create your own MIDI (comes with nine MIDI plug-ins that help you transform the sounds, such as chaining multiple plug-ins together, scale velocity, etc) tracks with only a mouse (most programs have this). It has a ―virtual drummer‖ feature which features an interactive drum set for visual implementation of drums for some fun playing and natural sounding kits. Also has an arpeggiator that's better than a lot of software out there — it's programmable too.

This thing is just jam-packed with features, synths, plug-ins, and not to mention a great interface for easy learning. Even if you're a beginner, although not recommended, you can probably get away with using Logic — it'll just take some time to learn it. Just remember, it's worth sitting down for even a month or two to learn the basic ins and outs of this and you're good to go for *years*. Logic Pro isn't going anywhere any time soon, and their community is huge for any questions that may arise. Another plus is it comes with a sound library and loop collection with some pretty fresh out-of-the-box effects as well, so if you're looking for some sounds for your controllers/pads this is a plus.

Pro Tools

If we ask any professional producer or sound engineer and they'll say that anything else in the DAW world is just a waste of time. However, a lot of them say this after becoming *certified* in the program — as we stated before, there are entire school programs dedicated to Pro Tools. If we really wanted to describe this software to you it would take us 100 articles, but here's a bit of a breakdown: It gives you the standard ability to compose, record, mix, edit, master, etc. What's advanced is it has its own Avid Audio Engine which gives you a super fast processor, a 64-bit memory capacity for sessions (never lag, freeze, etc), its own latency input buffer to help with that annoying delay, and built-in metering. Change the tempo with time-stretch of any track, and there's something called Elastic Pitch that's a bit like autotune in the sense of ‗correcting' harmonies. Also comes with 70 effects and plug-ins: reverb, compressors, EQ's, channel stripping, the works — merely anything you can think of, Pro Tools has. I can't even begin to list everything it can do.

We also know some pro musicians who use Pro Tools only for mixing and mastering and having an additional DAW to make their music from scratch. It's compatible with both Mac and PC, although with Mac it works a bit better (was originally created strictly for this).

Apple Garageband

Garageband by Apple is an extremely popular DAW, especially among beginners. Extremely suitable for those in the starting stages of music, particularly younger ones or those who merely want to lay down some tracks and make some cool tunes. However, I have some friends who tour nation-wide that still use Garageband just because of its simplicity and ease of use for recording. We'd go with this over Fruity Loops in terms of starting from scratch as your first DAW if you're on a Mac.

What's also special about this software is its got the very user-friendly interface that helps you visualize what you're making — keyboard, synths, and percussion. It offers some pretty solid presets for vocal and guitar recording as well, although nothing too out of the ordinary. It does have a few good amps and effects for the guitar or mic. It maps out the chords and explains what they are to help you get a better understanding of music theory. It supports your standard USB keyboard and gives you some loops built-in to mess around with (you can buy more through their app store), and there's something called ―Smart Controls‖ which is basically an interactive control of plug-ins — knobs, buttons, sliders, etc with images to really visualize what you're doing behind the scenes.

Cubase

Many people use Cubase music software these days. The Key Editor lets you manually edit your MIDI track in case you need move a note over here and there. You get your unlimited audio and MIDI tracks, reverb effects, incorporated VST's, etc. Although it's seen as a bit of a trend from these DAWs, ultimately trying to separate themselves from the competition, Cubase has one of the biggest sound libraries that come with the box. You've got something called the HALion Sonic SE 2 with a bunch of synth sounds, Groove Agent SE 4 with 30 drum kits, EMD construction kits, LoopMash FX, etc. Some of the most powerful plug-ins within a DAW. Some just say that it's a bit expensive and very hard to learn — but as stated previously, once you learn it, you're good to go for a very long time.

Acid Pro

Acid Pro (now owned by Magix) just does what you want in an essential-based manner. There's the recording ability, loop audio tracks, and MIDI support. It's got a pretty solid sound series loops (3,000 sounds) and comes with about 90 VST's to mess around with using your MIDI controller. The time-stretch works pretty well too, something I've used quite a lot if I need to slow down or speed up a sample or track I've recorded. It's downloadable and very cheap, so if you're looking for a budget-friendly DAW and one that has been around for decades — this is it.

V. CONCLUSION

Most people love some kind of music. Some even dream of being rock stars, but the combination of computational thinking skills and an interest in music opens up even more exciting avenues. After all discussion we can say that audio engineers constantly change the way we both make and listen to music, from the formats we use to listen to music, to creating new forms of computer generated music. They can also use their skills to use sound in other novel ways, from anti sound that cuts out unwanted noise, to multimodal systems that give the blind new ways to interact with computers. Those with musical ability, computer science and electronic engineering skills together with a creative flair can both make new sounds but also change the way the rest of us make and use sound. In India the reason you need to learn about the technology and these recording music software is to understand how it is impacting the music that you create, how it can make improvements, and how to use it responsibly to get the sounds that you desire most. Without truly understanding and embracing the technology that exists today, you would be behind the times and unable to produce sounds similar to those within the music industry.

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