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LOOPS, CLICKS, KEYS, & TRICKS

Two parts to this seminar

Part 1 - a (relatively quick) orientation on where to start if you are newer to this topic. I will time box this but am glad to connect in more detail at any point if it would be helpful.

Part 2 - a detailed walkthrough of my setup with two goals:

1. To help illustrate some of what is possible for those newer to the concepts
2. To help spark ideas and provide techniques and tricks to those more advanced

My hope is that this balances the diverse needs of people coming from a wide variety of backgrounds and depth.

Part 1: How to get started

I.   Why use a laptop?

    A. **Power:** There is truly more in my 6 year old used MacBook Pro than I had access to in a $500k recording studio in 1992

    B. **Flexibility:** My setup, my way, without the need for multiple hardware keyboards or the need to do programming on a limited hardware synth interface.

    C. **Variety:** An endless supply of amazing soft synths and effect plugins available

    D. **Quality:** Some of those sounds, in particular core keyboard sounds, are unmatched on hardware units due to sample size limits in most hardware. This gap is shrinking though.

    E. **Portability:** Any keyboard can drive my rig - it simply needs a basic midi out.

    F. **Timing:** I can easily configure and run a click to make us all better.

    G. **Decoration:** Loops, Tracks, etc can be used to enhance your sound with things that are difficult or impossible to replicate live.

    H. **Durability:** Upgradable over time

II. Wow - seems like a no brainer - so why not?

A. **Complexity:** There is no way around it - with a hardware keyboard you just plug in and play. Even the simplest laptop setup is significantly more complex and requires that you build a basic understanding of the technology.
B. **Stability:** This used to be more of an issue, and is very dependent on the hardware and software that you leverage - value stability over ANY feature if you are going to play live.
C. **Maintenance:** OS upgrades, drivers, software updates, etc - backup frequently, adopt new versions slowly and test all changes.

III. What do I need?

A. Your laptop
1. Does not need to be cutting edge (mine proves that), but your investment here is the foundation of your setup. It is worth investing in. Bare minimums: RAM (8gb+) then CPU (i5 dual core+). SSD drive matters, especially if not using an external drive.
2. Get a Mac. Sorry Windows fans - I have tried. Multiple times. I was even a Microsoft technologist professionally. Trust me, just save yourself the headaches and get a Mac for live audio use. Value stability over everything else.
3. Optional: An external SSD hard drive

What about my tablet or phone - are mobile devices ready for live use as my sound source yet? They are getting much better, but a very real gap in power and quality remains.

B. A keyboard
1. Simply needs a Midi output (ideally USB) and a sustain pedal input
2. Ideally has a mod wheel and pitch bend
3. Optionally can have other controllers - like a full midi control surface.
4. NO other features matter.

Actually - the most important aspect here is the feel of the keyboard - get something with a keybed which feels good to you and helps you connect to the music you make. If this connection does not happen, you will play less effectively than you could.

C. An audio interface
   1. This is what connects your laptop to the sound system
   2. Can also double as a midi interface if your keyboard does not have USB midi (not all interfaces have this feature so know if you need it)
   3. Have I mentioned stability matters? Test when you buy and return it quickly if you have ANY issues (audio drops, clicks, application freezes, etc)
   4. Get one with at least 4 analog audio outputs. 6-8 is even better. More on this later.

D. Hands on Control
   1. Some way to control the sounds you are making - mappable controls.
   2. Can be simple or complex - but at the very least you need a volume control.
   3. Can expand use over time as your setup grows in power and complexity.

E. And last but certainly not least, software.

   1. Multiple choices that work well and many people will have religious wars over them.

   2. First, your base application - my top two:
      a) Ableton Live: Amazing power, extremely stable, runs on both Windows and Mac, full DAW for recording. But, I prefer other sound plugins so it requires additional plugin purchases
      b) Apple MainStage: Incredible power for almost no financial investment. You could create a pro grade setup with just this plus a good acoustic piano sample. But this is an Apple only product and requires a separate purchase of Logic Pro (or another DAW) if you want to record.

   3. And then plugins - there are a million, but here some I have personally depended on:
      a) Native Instruments Komplete
      b) East West Symphonic Orchestra Gold (requires iLok registration)
      c) East West Goliath (requires iLok registration)
      d) White Grand by Sampletekk (requires NI Kontakt full license)
      e) ValhallaDSP Shimmer
      f) ValhallaDSP VintageVerb

      g) Others:
         (1) Spectrasonics Omnisphere
         (2) Spectrasonics Keyscape

(3) XferRecords Serum

Beware of buying plugins, only looking at the presets, and then never learning the plugin they are built on. You will find much of what you want (and MAYBE save some time) if you do that, but you will also spend way more money for things you already have the ability to do.

Part 2: A detailed walkthrough of my setup

I. My controllers and a general overview

II. The click track
    A. Really? You're going to start here? Yep. This has probably made the biggest difference in how we play as a band, which is more important than how I play as an individual (though it helped that too).
    B. Patterns and sounds and one of the reasons I love Ableton
    C. Oh, and an sample based audio cue instrument just for fun
    D. Makes running loops/tracks possible and lets time based effects be perfect, or intentionally imperfect

III. Sounds - what my keys control

    A. A little bit of bread and butter (with some spice)
        1. My pianos, the roles they play, and the ways I tweak them
        2. Electric pianos and the use of effects
        3. Pads, as primary and a layer
        4. Dialing in a string orchestra
        5. Organs across multiple styles
        6. The mighty synth lead

    B. The alternates - flexibility for things outside the box
        1. Song specific patches
        2. Sequences
        3. Splits and Special Effects
    C. Drones - an open and shifting accompaniment bed to lay ideas down in and see what grows. Careful not to overuse.

    D. A note on Master Effects vs Insert Effects

IV. Loops and Stems

   A. Working definitions

      1. Stems or Tracks: Song specific recordings, sometimes in repeatable sections. Can contain a full arrangement, a sub mix of some instruments, or a single instrument.
      2. Loops: Repeatable building blocks that can be used as part of an arrangement. Typically shorter, less song specific, and focused on a single instrument.

   B. A note on spontaneity

      God moves in spontaneity. God also moves in prayerful planning and preparation. He uses both to bring glory to his name and draw worship from his people.

      We don't need to be ONLY spontaneous in order to engage the Spirit of God in our worship services. We should plan and prep and work hard ahead of time in order to be as excellent as we can be. Our years of practice are primary examples of this. A planned setlist and specific song arrangements are others. Plan prayerfully, and plan well. God will lead us and meet with his people through that planning.

      However, there is an aspect of worship through song that is a real time engagement with the Living God and He will surprise us from time to time. I would advocate that we not limit that work to simply repeating a section of a song an extra time or two. Leave room and create flexibility for the leader and the musicians in the band to interact with what God is doing - in between songs, but also during them.

   C. Principles

      1. We are not always spontaneous, but when we are, it matters that any preprogrammed parts don't get in the way.
      2. Stems and loops take some degree of work - you must experiment ahead of time to understand how the sections flow and what transitions work well together.
      3. They should complement and decorate the instrumentalists you have, not become primary and overshadow them. Be real, not artificial.
      4. Have reliable control over what starts when and how to stop parts as needed.

   D. How I practically handle loops and stems

a) Clips: An audio or midi snippet, with an instrument (if midi), and with behavior
b) Scenes: Multi clip launch with tempo and time signature
c) Real time tempo adjustments
d) Preset selection and dummy clips
e) Scene select and launch controls
f) Direct scene launch
g) Direct clip launch and stop
h) Hard stop (and the one thing I don't like about Ableton)
i) Stop all clips (which addresses the previous gap)
j) Quantized vs immediate launch
k) Utility Loops
l) File organization and song projects

E. A source and practice tool - multitracks.com

1. Original artist recordings, in multitrack format
2. Rehearsal Mixes - to help us all hear and learn

V. My master output busses

A. Bus 1 - all things keyboard and synth like
1. Keeps it simple for the engineers and other musicians to know where things are coming from even as I switch patches.
2. I must sub-mix effectively - only I know the blend I am intending to be heard
3. Receive feedback as a gift - just because I intended a particular sound blend does not mean that it worked well in the actual house mix.

B. Bus 2 - anything drum and bass like, or full tracks
1. This is impossible for me to sub-mix against my keyboards effectively - the sound engineer must place this in the house mix separately.
2. Sometimes gets EQ'd differently at the board
3. Others may mix this differently in their monitors as well.

C. Bus 3 - Click Track and any audio cues, routed to monitors only

D. Other notes:
1. I could easily break this out into additional sends for major parts that are especially important to mix a particular way.

2. The more sends I create, the more the engineer needs to know what I will be doing ahead of time so they can mix effectively.
3. Compression, Limiter, Master EQ can be helpful on the master busses. Be careful to not over do it. And talk with the engineer to make sure you are not duplicating. Listen for "life-less-ness"
4. Ultimately, what is heard in the room trumps what you hear in your ears. Work with and trust your engineer - let them express and grow in their gifting as well.

VI. Questions?