Preparation

Learning the ropes

In preparing for your first gig with Scratch LIVE, the time you spend before the gig is going to pay dividends that night. This is especially true for those who have only just purchased SSL but are already gigging DJs with experience in clubs; you need to be familiar with the differences and new opportunities to be creative if you are going to maximize your 1st gig's potential.

This guide assumes you have already read the manual and have a library of music in Scratch LIVE. If this isn't you, please do so before proceeding. A great way to get to know Scratch LIVE is via the tooltips; click the (**?**) next to the Scratch LIVE logo to enable tooltips then hover over parts of the interface with your mouse cursor to get info about them.

The Modes

Scratch LIVE uses three distinct modes for operation, they are detailed in the manual. Most people start with **absolute** mode, since that is closest to "normal" vinyl. If you don't want any chance of skipping while you scratch, change into **relative** mode, if you need to play a track and aren't going to control it with a turntable, use **internal** mode.

The Markers

Markers speed up DJing, it's that simple. Go through your tracks and place markers at key points in the track — where you usually cue from, mix into the next tune or scratch samples etc. If you DJ with doubles sometimes (same song on both decks) the markers can really add to your routines, and keep you oriented within the track.
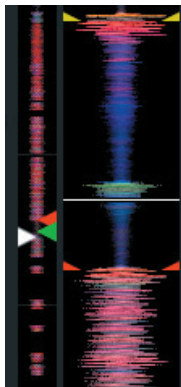
The Setup Screen

It can't be emphasized enough how important this screen is to the health of your Scratch LIVE. Learn it, re-read the manual section about it, and become comfortable with what it is used for. Once you're familiar with it, setting up Scratch LIVE should take about as long as swapping carts with the previous DJ (unless you have to swap in your SL 1).

Some points of note are:

USB audio buffer size

This is the key setting as far as performance is concerned; a smaller buffer size (slider to the left) results in tighter record control. Gradually lower the setting, while mixing (and/or scratching) until you get a "stuttery" display or you reach the lowest setting possible. This setting should be established well in advance of your gig, and if you don't feel confident that the setting is appropriate, then increase the buffer size one or two ms to be safe.

Auto fill overviews

If you're playing tracks which you've just added to your library, and don't have overviews built, this option will build them for you with "spare" cpu cycles. This will reduce the performance of Scratch LIVE if your CPU is already maxed.

Calibration

You *must* calibrate whenever you set up, and regularly with a permanent install. The scope on your setup screen is an indispensable tool for checking your turntables and needles. Look at Scope reading and fixes in the back of the SSL manual for a selection of various scope signals and their likely causes.

The threshold is the level below which Scratch LIVE ignores the input, this is to prevent noise from being interpreted as control signal.

Building Overviews

The overview of each track is stored within the file itself and provides an overall view of the content; if you've got one of those songs with 2 minutes of talking before the beat drops, look at the overview while you needle drop through.

It's a good idea to build overviews for all your files before you play with them, it's one less thing for your computer to be doing while you're playing to an audience.

Unplug your SL 1, click the build overviews button, and Scratch LIVE will work through your library building all the overviews.

The Scratch LIVE setup screen is indispensable for maintaining a DJ system.

Organizing Your Library

Entering ID3 Tags

Having correct information in all your tracks will mean you can find any song when you need it. There are numerous third-party applications which you can use to enter information into the tracks, or if you are ripping your tracks yourself from CD, you may be able to use the CDDB to retrieve the track names from the internet. The BPM tag can be useful for finding tracks to mix, and there are applications to automatically determine the BPM of a track and put that information into the tag.

To find some applications which are popular among our users, check out the What MP3 tools are you using? thread on the Scratch LIVE forum.

Browse and Search

Browse view can find a track very quickly if the tags are correct. For a set which you haven't completely planned out, get used to the browse function to help you find songs which meet criteria on the fly.

For instant access to a specific song, type keywords into the live search. As you type, the songs visible in your library will be narrowed down accordingly.

Making Crates

If you're used to ordering your record crates according to your set, then the crates in Scratch LIVE will be handy. Make new crates by clicking the (+) button under the crate list and drag songs from your library into them. Once the songs are in there, click on the crate and order them how you like. One song can be in any number of crates.

iTunes

iTunes integration in Scratch LIVE is very good, so if you're already organizing your songs with it, your library and playlists

will already be there when you start up Scratch LIVE. Remember that at the moment AAC files aren't currently supported (so songs you buy from the iTunes music store won't be able to be played using Scratch LIVE) and if you're using iTunes to rip CDs, remember to change the import settings to MP3, WAV, AIFF or with the third-party plug-in: OGG vorbis.
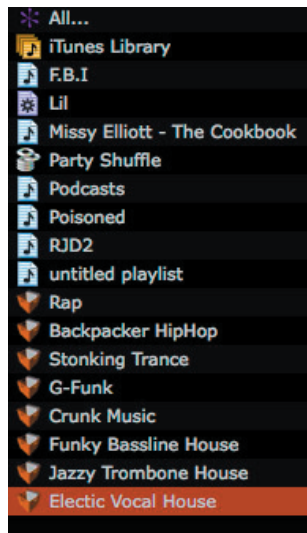
External Drives

External hard drives are inexpensive, portable, and take a load off the internal drive.With most people using Scratch LIVE on laptops, external drives are the most popular way to add storage and performance for reasonable cost.

If you build a library including songs on an external drive, you will be able to plug your drive into another Scratch LIVE DJ's setup and have your songs available on the fly. External drives also help system performance since the heads on the internal drive are free to fetch information for the system, while the song data can be read whenever it is needed.

One point to remember is that if your external drive is USB2, you may have a shortage of USB bandwidth if you run it on the same hub as your SL 1, keyboard, mouse, bluetooth dongle etc. So test it out! If you have problems, search the Scratch LIVE forum and try some of the solutions listed there.

If you don't know what any of this means, call that computer nerd friend of yours and ask them. Or call or email a Rane Corporation DJ expert at 425-355-6000 (8AM to 5PM Pacific Time, West Coast USA):

Shaun Whitcher   *shaunw@rane.com*
Zach Stone   *zachs@rane.com*

Stress-testing your setup

It's worth putting your Scratch LIVE in the worst-case scenario so you know how far you can push it on the night. If you're not going to be using your own computer at the gig, it is important to gain access to it so you can be confident that everything is in order.

Some things to try (all while two songs are playing):
• Rapidly scrolling through your library
• Copying songs from a CD-R of tracks onto your hard drive
• Backspinning through one track as fast as you can
• Playing songs from an audio CD in the CD-ROM drive

If you get drop-outs, try adjusting your USB buffer size, disabling extra processes like WiFi, power management, bluetooth, antivirus, etc.

If you're still getting dropouts, before you rush out buying new gear, come onto scratchlive.net and let us and the other users know what's going on. It's a great resource and the people there really know what they're talking about. Chances are someone else has already gone through what you have.

Disk System
Play two wave files and needle drop through them, see how it performs. Wave files are large and therefore read from the disk a lot. They also sound great and are (slightly) easier on the CPU than compressed files.

CPU
Needle dropping through compressed songs like MP3s and backspinning rapidly can test how your CPU performs under load. Remember to disable useless background processes like your antivirus and power management systems which will slow down your CPU on purpose.

Needles / Vinyl
DJ for a couple of hours. Now check your **setup** screen, are those scopes still nice and clean? Do you need to brush your needles and records? Unlike with normal vinyl, you won't get the usual cues something is going awry; e.g., if your tracks are getting summed to mono by a faulty tonearm connection, with normal vinyl at least the music won't stop, with Scratch LIVE that would mean having to switch to **internal** mode as you won't be able to track the record correctly any longer.

Temperature
After the DJ session above, feel how hot your computer is, especially underneath. If it's hot, you should consider getting some extra cooling. A desk fan pointed at the laptop can be all you need, there are also 3rd-party coolers which will do a great job of keeping your laptop cool. Remember, it can often get hot at venues and micro-electronics such as that in your laptop can malfunction.

What to pack

Essentials
SL 1
Control Vinyl and CDs
Laptop
Laptop Power Adapter
External Drive(s)
Laptop Stand
Headphones
Needles and Headshells
Flashlight
Your keys

Optional Equipment
SL 1 external power supply
Slipmats

Back-up music sources
Take a few records or CDs and maybe an iPod to your first gig so you can play with the confidence of a backup (I doubt you'll need it!).

Maintenance Equipment
Record brush
Needle Brush
CD / Monitor wipes
Flashlight
Pack duct tape for taping down things like your SL 1, fan, etc.
Spare RCAs, Headshells if you got them.
Deoxidising spray if you have any (club mixers can often have noisy faders).

Setting up at the venue

Installation

Scratch LIVE needs some installation to be integrated into a DJ setup. If the venue doesn't already have an SL 1 wired into their setup, work out how much setting up you will need to do, and how much of it can be done prior.

Leads/plugs

Make sure the turntables are correctly grounded to the mixer and that they are plugged into the correct inputs of the SL 1. Bring up Scratch LIVE on your computer and make sure that tracks play forwards with the record movement, sometimes poorly serviced turntables have their RCAs swapped and this will result in the tracks playing in reverse.

Connect the thrus to the phono inputs of the mixer and the line outs to the line ins. If you're playing with other regular DJs, you may need a power adapter for your SL 1 or to leave your laptop plugged into it to provide thrus.

Situation of gear

Try to retain good access to your mixer while being able to reach your computer quickly. Make sure your laptop doesn't get in the way of the mixer, and that the position of your SL 1 isn't placing any stress on leads. Ensure that with lighting system on you can see your screen clearly and reach the controls quickly.

Swapping out

Dealing with a mess of cables in the dark can be a pain. Playing with other DJs usually means mixing into the last track they play, if you're unable to install your SL 1 beforehand, practice swapping the leads while one deck is still playing, dropping a tune in Scratch LIVE and then connecting the other leads. This can be fiddly, so bring a flashlight, and make sure you know which plugs are which so you can do it before the music dies!

Calibration / Sound Check

It's important to check your setup beforehand so you know what to expect when you start DJing. All calibration should be done at the volume you will be performing at, with all potential sources of interference, especially lighting, *on*.
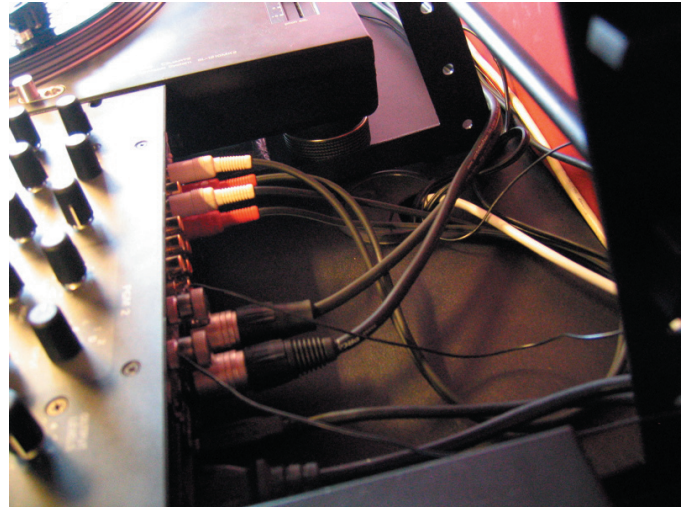
Scopes

Install your headshells and play the control vinyl from the start, check the scopes — are the circles clean? Make sure the TT's are correctly grounded to the mixer, and that the SL 1 is set to the correct level — are the turntables line-level? If so make sure in the **setup** screen that Scratch LIVE knows.

Tweak the P/A and L/R knobs to get the innermost circles as round as possible.

Threshold

Stop the records, play a track in **internal** mode, and click **estimate** with the needle on the record.

Check the tracking percentage, is it hovering around **100%**? If not, why not? Are there speckles in the scopes? This can mean noise and interference being picked up, if the tracking is bad try moving lights, moving power leads and turning off unused equipment.

Sound Check

Run through some of your set with someone listening, are any of your tracks so compressed that they sound bad? Mark them in Scratch LIVE so you don't play those. Make sure you don't get drop outs and that the level from Scratch LIVE is loud while not clipping the mixer.

Check what the gain settings on the mixer should be, remember: those other DJs might not know what they're doing!

Interference

Remember to keep your cell phone away from your DJing equipment, and find out who you should talk to if you get interference during the gig.

Other DJs

If you're playing with other DJs find out whether any of them use Scratch LIVE, maybe you can share an SL 1 and save some setup time.

Find out who is before you, if you need it, request they play a longer track to finish up so you can swap in your gear.

Show them Scratch LIVE, tell them how great it is, and where you bought it from.

Promoter/Owner

He's the guy you will be talking to about getting paid at the end of the night. Make sure he's around to see how good you are.

Sound Tech

There shouldn't be any difference sound wise, but if the venue has a sound tech, let him know what you're using as a courtesy.

Find out if there is any spare equipment (turntables, mixers, headshells etc) and where it's kept. If some of the club's gear fails you'll know what to ask for.

Facilities

Find out where you can keep your gear before and after the show, where the closest bathrooms are and how hard it is to get to them with a crowd.

Parking, if any, and where is safe to park is also good to know.

The Gig

Put in your headshells, and go through the calibration sequence again. Check your levels and make the crowd go wild etc.

Clean your needles and control vinyl during the course of the night.

Keep an eye on the tracking indicator.

Make sure everyone who's interested knows where they can buy Scratch LIVE.

It's a good idea if you can, to record your set and listen back afterwards to see what went right, wrong, and how it all sounded. With an extra soundcard, this can be achieved with the same computer that you play from. Check out the Scratch LIVE forum for ideas about this and whether your system is capable.

Potential Problems

It's unlikely that you will run into problems, but if something strange happens, you should know a few basics to figure out what's wrong. First things to check are:
• The tracking indicator
• Dust on the needles
• Temperature
• The scopes in the setup screen
• Is your control vinyl clean
• Other applications, tasks

If you see the USB light coming on and sound glitches, the first thing to try is to switch to the setup screen and raise the USB buffer. If it's maxed out and you still get dropouts, make sure your cooling is working, your other programs aren't running and the tracks you're playing aren't corrupt somehow.

It might be a good idea to throw on some backup audio and restart your computer.

Quickly play backup audio and restart your computer. Make sure you don't play that file again until you've verified what the problem is.

If your computer crashes, that iPod might come in real handy. Don't be scared, almost all of our users have never had a crash in a live situation, but try and remember the track you were playing. Come onto ScratchLIVE.net and tell us about it, so we can make sure it never happens again.

If it turns out your problem was caused by a particular file, we need to know about it, so please retain the bad file and send it to us at some point (make a topic on the forum and we'll let you know how).