Many musicians balance creatively on that fine line between live and sequenced performance. Some play an acoustic drum kit and fire sampled sounds, phrases, or loops from strategically placed pads or highly sophisticated multipad rigs. But others prefer to create new musical compositions using “on-the-fly” DJing of individual pre-recorded loops. In either case, previously sampled or recorded material is a key factor.

Now consider live loopers (the people). They start with absolutely nothing and construct compositions from the ground up in real time, layer by layer, to produce amazing combinations of musical colors. Loopers work in every
musical style, from the most banal pop to experimental to classical – and everything in between.

If you’re not familiar with the process of live looping, here’s a quick overview. Using some sort of mechanical device (in the early days, it was a tape recorder; now it’s dedicated hardware or software), a performer records a part in real time and then immediately loops the playback of the recording so that it repeats over and over. Once the first loop begins cycling, the performer layers another loop on top of it to create a second part, and then a third part over the first two, and so on – in essence using a multitrack performance technique in real time. Depending on the sophistication of the looping device, the performer can synchronize the tracks, bring individual tracks in and out of the mix, play tracks backward, speed them up, slow them down, apply effects, or put the audio through a number of other manipulations to make the creation more unusual.

It’s a whole new world of possibilities, and this article will cover the instruments, hardware, software, and artistic approach of two very different looping artists: Rick Walker and Kid Beyond.

THE INSTRUMENTS (OR NOT)

Loopers prefer to work with looping rigs because the end result is often more organic than what you get with synthesizers and sequencing software. In most live looping scenarios, performers start with acoustic sounds rather than synthetic ones, although this isn’t always the case. In some circumstances – especially when dealing with software looping programs – your creation can contain a mixture of acoustically recorded loops along with MIDI sequences. Since live loops aren’t rhythmically quantized, the rhythms and grooves possess a more human feel.

Skill level almost doesn’t matter. If you only play percussion, you can integrate a variety of instruments to create tones and textures that focus on rhythmic ideas. You can even manipulate some of the rhythms to create melodic passages. If you sing, you can create loops on the fly and then float your voice over the top. And multi-instrumentalists can use their full range of talents to develop compositions that feature an orchestra of instruments.

A talented multi-instrumentalist performing with both traditional found-sound and newly invented instruments, Rick Walker has adopted live looping as his main means of expression. “The more I went on, the more I wanted [other sounds] to be part of what I was doing,” he says. “I wanted to produce more atmospheric kinds of loops that were originally made with samplers. So I started using my voice, singing through tubes, playing things through tubes, Velcroing keys down on keyboards to create drones, and other experiments and investigations into sound.”

“I started aggressively learning as many different melodic instruments as I could – I’m still doing that to this day. About every three months I pick up a brand-new instrument that I’ve never played and see if I can get something out of it. Almost every single drumming looper I know has become a multi-instrumentalist in the process. It liberates you to move over and play things that are more than just rhythmic.”

Kid Beyond is a different breed of looper. His only instrument is his voice. “I have a drum kit in my head,” he explains. “It’s got a number of different instruments: a few different kinds of snares, kicks, hi-hats, crashes, maybe a turntable off to my left side when I need it, a number of Latin and African percussion instruments, and occasionally a gong behind me like Motley Crue.” But Beyond’s “kit” has more than just acoustic percussion – he also creates the sounds of drum machines and early analog synths. “One of the advantages of being a vocal percussionist is that I can switch to different kits and different sounds instantaneously,” he boasts.

Beyond’s performances are a unique experience. He stands alone on stage with a microphone and a pedal board. His laptop is off to the side (though you’d never guess that he was actually using it). “I’ve been beatboxing and singing my
whole life," he says. "I've been doing solo performances as a
live looper for about three and a half years. Before that time I
stayed with some bands and taped with some bands. I had
this idea percolating in the
back of my head to create a
solo project."

And so he did, and in the
process incorporated his
prodigious skills as a vocalist,
as well as other myriad talents.
"I write songs, I sing, I beatbox," he explains. "I do all the
different instruments, and I
also produce. I was looking for
a way that I could combine all of this. I'm also a total com-
puter geek and have been since I was a kid."

**QUESTION OF STYLE**

Walker's music is nearly all
improvised. "I've been obsessed
with the notion of the con-
straint of randomness," he says.

"I haven't performed a re-
hearsed set piece in over seven
years, other than recording ses-
sions and touring behind peo-
ple. In my own shows, every-
thing that I've done recently has
been totally improvisational,
but within certain constraints."

Before a gig Walker selects a
group of instruments. Instead
of writing a song list, he maps
out combinations of instru-
ments to use on each piece,
and then goes on stage with-
out any preconceived notions.
"That can be dangerous and
scary," he admits. "It means
you're not always on. But it
also means that some very spe-
cial things can happen. It's as
much about listening as it is
about conceiving things to
play. I'm listening to what's
being played and thinking
about what my response will
be to that."

Beyond's methodology is
considerably more methodical.
"I wanted to approach this
from a songwriter standpoint," he explains. "I'm really a
singer/songwriter, but my in-
strument is my voice. I made a
conscious choice to do songs. I
really wanted to try multitrack-
ing myself, which is one of the
reasons why I chose Ableton
Live and a computer setup
rather than a hardware looper
[the machines]. I wanted to be
able to manipulate individual
tracks and put different effects
on each of the tracks and take
tracks in and out."

Since Beyond actually plays
compositions, his music is a
little more sophisticated and
cleanly organized. "Really, it's
what suits the song and the
live arrangement of the song," he
says. "I'm arranging an ac-
tual song, so if I spent five
minutes at the top of each
song getting all my loops up
and running, that would start
to bore people.

"This shapes and restricts
how many loops I can do and
what the arrangement is like.
It's an interesting process. I
have about a minute at the
most before the top of verse
one will drop. It may start
with some bass, some rhythm
section, and some melodic
stuff. And sometimes, de-
pending on the composition,
I'll start singing over that, and
then I can put another part in
between chorus one and the
second verse. The live
arrangement of the song defi-
nitely determines how the
song turns out."

**TOOLS FOR TIMING**

Working with loopers has
strengthened Walker's sensitivi-
ty to the subtle nuances of
time, feel, and groove. "I've
been fortunate to play with..."
many musicians from around the world,” he says. “When you play with someone from Algeria, they have a different feel in the way they might play sixteenth-notes. Each time you learn a new paradigm in ethnic music, you learn how to make these adjustments to sound authentic. I learned a tremendous amount about moving off of the perfect metronomic approach to rhythm by playing with all of these great musicians. But I’ll tell you, I’ve learned ten times as much about rhythm and time by working with loopers than I have with all of these experiences combined.”

Looper is also a great tool for individual practice. Percussionist, composer, and vibraphone artist John Best has been working with loops and delays for his own rhythmic development, as well as that of his students, for several years. When you play along to yourself, it’s blatantly obvious if you start to rush, drag, or wobble in your rhythm, time, or dynamic control. “The beauty of using loops,” Best says, “is that it creates an environment in which you are playing on top of your own sound. This strengthens ensemble and timing skills as well as giving you feedback about elements of your own performance like a recording. And all of this happens in real time. No other tool can give you this type of practice experience.”

GEAR GAB
Walker prefers hardware. He has two Line 6 DL4 Modeling Delays on the ground, an A/B box, an intelligent pitch shifter, a rhythmically controlled tremolo device, and a LoopErative LP-1 with an Electrolyzer Repeater in a rack. He also uses an M-Audio Trigger Finger, a Roland Pad 80, and a WX5 Wind Controller. His Gibson Echoplex “is one of the most archaic loopers that I own, but the looping software inside the unit is the most sophisticated device for slicing, dicing, and rearranging.”

Kid Beyond prefers software, and uses Ableton’s Live as the main workhorse of his rig. He explains, “Now I’m using a Mac and a combination of MIDI Pipe and QuicKeys software. QuicKeys is a macro program. I use it mostly to be able to switch from one song to another. Each one of my songs is a separate file in Live, and there is a corresponding file in MIDI Pipe. MIDI Pipe allows you to take in MIDI events and do all sorts of things to them. One of the things that it can do is trigger a little Applescript that can say, ‘On this button push, send this series of commands to Live.’” Beyond’s pedal board is the Voodoo Lab Ground Control Pro. “It’s built like a tank, and can withstand just about anything. It’s very easy to program, although I do most of my pro-
gramming in the software rather than in the pedal."

**HARDWARE LOOPERS**

Looping hardware comes in a variety of styles at just about every price point. On the low end of the spectrum is the Boss RC-20XL Loop Station (you can find the first-generation version, the RC-20, on eBay for around $100). Even though this machine is part of Boss' guitar effects line, it's certainly not limited to guitarists. In fact, a large number of loopers credit this device as their first love in the looping experience. While you may eventually move onto a classier model, the RC-20 is a great way to get your loops on.

The RC-20XL has both an instrument and a line-level input that can be used at the same time. It has the ability to

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Capture every nuance of performance while harnessing your percussion software and hardware. Trigger iO converts input from your percussion pads to MIDI note messages for triggering your sounds via USB 1.1 plug and play connection.

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- USB and MIDI
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holding up to 11 loops that total 16 minutes of sample time, and can play loops or one-shot events forward or backward. The inclusion of an aux-input lets you make recordings of music from your CD player or iPod.

Another entry-level machine is the Digitech JamMan. Developed nearly 20 years ago, the JamMan has been the tool of choice for many live loopers who cut their teeth on hardware. Today's version uses CompactFlash memory to store as much as 6.5 hours of data on a 2GB card. One of the hippest features of the new JamMan is the USB port, which allows you to easily dump killer loops into your computer's hard drive.

A step above the RC-20XL and the Digitech is the Boss RC-50. This unit has seven foot pedals for more real-time control of three discrete recording tracks, each of which is capable of multiple overdubs. Designed more for the professional rather than the amateur, the '50s microphone input is XLR-style, complete with phantom power. All inputs and outputs are stereo, and the unit can hold nearly 25 minutes of stereo samples. A full complement of synchronization tools helps the 50 stay tight with other MIDI modules, sequencers, or lighting systems. This is a great middle-ground machine that would serve well for the majority of looping experiences live or in the studio.

On the higher end of things, the Loopertive LP-I, with its eight individual tracks and three sets of stereo outputs, has been described as the Cadillac of loopers. Each of the tracks can be synchronized or have their own time and tempo identity. Once tracks are recorded, they can be muted, reversed, scrambled, bounced to new tracks, or manipulated in a number of different ways. A unique feature is the Ethernet port in the back of the box. Once you plug the unit into your computer, the software inside the box jumps on the net, goes to the Loopertive web site, finds and downloads the updates, and installs them. In essence, your machine's got new features as soon as they are designed and built into the operating software. How cool is that?

SOFTWARE LOOPERS
As it is in hardware, so it is in software. There are a large number of programs that can be used for live looping. One advantage of working with software programs is that many of the manufacturers offer free demo versions. You can download a demo, try it out, and see how it fits your operating and musical style.

If you're searching for a free shareware program, try AmbiLoop. A Windows-only program, AmbiLoop supports up...
to eight simultaneous tracks that can be played back at normal speed, half speed, reverse, and/or with filters. It also has the ability of mixing down tracks to a new track, thus offering the potential of unlimited tracks. It’s a good software version of a hardware looper.

Popular looping software can do many other things as well. Sony Creative Software’s Acid Pro 6 combines the best of several worlds with loop-based sequencing, live multitrack recording, and full MIDI implementation. No longer just a looping paradigm, Acid is a full-featured music production workstation that’s at home on the stage or in the studio.

Ableton’s Live 6, as the name implies, was designed for live performance. Its ability to combine and organize an unlimited number of tracks containing loops, one-shots, MIDI files, and multitrack audio is second to none. Each track can have its own processing for an almost infinite number of possibilities, from included effects to third-party plug-ins. It’s Kid Beyond’s main machine.

For the more adventurous among you, check out some of the smaller software publishers that are producing sophisticated programs for the audio connoisseur. Used by many experienced musical technologists, AudioMulch incorporates a series of “contraptions” that include signal generators, effects, filters, and a number of mixing elements that can all be applied to the loops. This software isn’t for the faint of heart, but it’s a powerful tool.

One of the more interesting programs is called Kenaxis. With its selection of file modifiers, it can produce textures and colors that can turn your live loops into an otherworldly soundscape with a few clicks of the mouse or a couple of MIDI messages.

NOW GET GOING
So there you have it: two viewpoints of the live looping experience from unique individuals using totally different tools and techniques. By now you’ve gotten some ideas as to how you might use live looping in your performances. Live looping can take your performances to an entirely new place. It’s time to put your own creative stamp on this technique.