Fig. 1. SampleTank 3's Play page gives you easy access to the browser and all 16 Parts in its multitimbral architecture.

IK MULTIMEDIA

SampleTank 3

A POPULAR SAMPLE PLAYER GETS A LOT MORE POWERFUL

BY GEARY YELTON

High-end romplers offer immediate access to just about any instrumental sound you can think of, often spanning music history and world cultures. Their immediacy and timbral range make them ideal for many musical tasks, whether you're performing onstage or recording in the studio. Despite the availability of so many other methods of synthesis, from analog and FM to physical modeling and granular synthesis, sample playback remains the most popular.

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STRENGTHS

Tremendous variety of high-quality instrumental sounds. Lots of audio loops and MIDI files. Easy-to-navigate GUI. Excellent effects and effects routing options. Convenient live performance features.

LIMITATIONS

Limited user-programmable modulation routings. No arpeggiator. Can be hard to find scroll bars.

IK Multimedia Sampletank 3:
$299.99 download
$199.99 crossgrade
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ikmultimedia.com

IK Multimedia's SampleTank is one of the most successful virtual romplers. But it has been 13 years since its launch, and half a decade since the last major update, so when rumors surfaced of SampleTank 3 (ST3), users expected big things.

And ST3 does not disappoint: New features include a redesigned GUI and plenty of new content, including more than 2,500 loops, 2,000 MIDI files, and 4,000 new instruments. The entire sound library has been updated to reflect current sampling technology, with higher sampling rates, more layers, and many more multisamples than in previous versions.

GETTING TANKED

ST3 is a 16-part multitimbral sample player that runs either standalone or as an AAX, AU, or VST plug-in, in Windows or Mac OS X. One difference between the plug-in and standalone version is the latter has an extra tab in Settings to specify the MIDI In source and audio interface parameters as high as 96kHz. You can specify any one source as your MIDI input or configure ST3 to accept control signals from all MIDI sources. Also, the standalone version has a handy meter for monitoring ST3's CPU usage, which is impressively light.

To install ST3, first, you must download IK Multimedia's Authorization Manager, install it, run it, and enter your authorization code. Once authorized, download and install ST3, which starts out with no included content. You'll find links for the content in your user area on IK Multimedia's website, where you'll download more than 33 GB in eight ZIP files—more than six times as much as SampleTank 2.5. Once your download is complete, decompress all eight parts, one at a time, to any location you like. The next time you open ST3, it will automatically find the content and build a database.

ONCE AROUND THE BLOCK

Unlike SampleTank 2.5, which crammed all its controls onto a smaller GUI, ST3 has three main pages: Play, Mix, and Edit. You'll probably spend most of your time on the Play page, which provides access to all 16 Parts and a browser for selecting Instruments, Multis, and MIDI Patterns (see Figure 1). As someone who felt the text in the previous version was too small, I appreciate that the Play page's Parts section is twice as large, and the GUI is

better organized. I wouldn't mind if the GUI were even larger, but it's a big improvement. My only real complaint is that the dark-gray on darker-gray scroll bars can be hard to find.

Each Part in the Play page has a slot for a single Instrument along with its MIDI channel assignment, volume and pan sliders, and an LED-style level display. An Instrument could be a 12-string guitar, a drum kit, a vocal ensemble, sound effects, or even a groove construction kit, for example. To layer Parts, simply assign them to the same MIDI channel. In addition to Instruments, buttons let you load Multis and Patterns, as well as open a page that enhances live performance.

The Mix page resembles a DAW's mixing console with separate channels for each Part. Each track has four effects sends and slots for five insert effects, as well as all the other controls you'd expect from a channel strip—lever fader, pan slider, mute and solo buttons, etc. Accessing insert and master effects on the Mix page is particularly easy, and you can save a channel's effects chain as a group. You can also scroll sideways to make changes to the four effects return channels (with five inserts each; see Figure 2). Most of the Mix page's parameters are also available on the Play page, but the Mix page makes working in the standalone version of ST3 more like working in a DAW, which is especially handy in live performance.

The Edit page resembles a synthesizer's front panel and furnishes controls for Instrument parameters—filters, LFOs, envelope generators, and the like—and settings for each Part (see Figure 3). You can instantly switch between the 16 Parts using buttons on the right side of the page to access controls for every Instrument that's currently loaded. In the Edit page's Part section, you can specify details that are not Instrument-specific for each Part, including maximum polyphony, transposition, panning, volume, and note and Velocity range. You can create splits by limiting a Part's note range and Velocity range, and you can create layers by assigning Parts to the same MIDI channel.

The row below that is the Sample section, where you can adjust parameters such as tuning and pitch-bend range or choose one of ST3's three playback engines. Next to the Filter section are knobs that govern how much note Velocity affects parameters, such as amplitude, filter cutoff or resonance, and LFO depth. Two more sections control LFO, envelope, and keyboard parameters.

All three pages have Instrument-specific Macro and FX buttons to access quick edit parameters in the lower section. Clicking on Macro reveals whatever eight controls are best suited for editing the selected Instrument. Clicking on FX reveals five buttons and a pop-up menu for selecting the Instrument's insert effects and controls for editing their parameters. At the bottom of all three pages

Fig. 2. The Mix page resembles a mixing console, allowing many users to work with Parts in a familiar studio environment.

Fig. 3. The Edit page is where you get down to the details of customizing individual Parts and Instruments.

Fig. 4. In the Play page's Live screen, you can set up all the sounds you'll need for your songs and organize them into Set Lists.

are buttons to assign hardware controllers to MIDI CCs, start and stop loop and pattern playback, etc.

JUST BROWSING

In the Play window, the browser provides a list of 22 instrument categories organized into folders, much as in previous versions. Clicking on a category's adjacent triangle opens the folder and reveals a list of subcategories. Within each subcategory are two or more individual Instruments. For example, the Organ category contains Tonewheel, Electronic, Pipe, and ST2 XL subcategories, and the Electronic subcategory contains Combo Organs 1, 2, 3, and 4.

When you click on the Search button and type in a keyword, ST3 helps you locate a sound quickly by displaying only Instruments tagged with that keyword. Clicking on an Instrument's Info button displays a 3-D drawing of the instrument that was sampled, along with a brief description, information about how much memory it consumes, a list of the parameters you can access using the Macro knobs, and other pertinent data.

Clicking the Multi button lets you browse Multis (called Combis in previous versions) exactly like you browse Instruments. A Multi may contain as many as 16 Instruments and all their associated parameters, Patterns, and effects. If you're an old hand at SampleTank, you can import your Combis completely intact to the newer Multi format.

One of the most useful new features in ST3 is the Live screen, which helps you organize groups of sounds for quick access—especially convenient in live performance—but ST3 goes beyond similar features in other multitimbral instruments (see Figure 4). Start by naming a Song and optionally assigning it a MIDI program change. Within each Song, you can specify a number of Multis that have whatever Instruments you'll need for that Song.

During a performance, you can send one program change to load a Song, one for the verse, another for the chorus, and so on, or simply click on the Song or Multi in your display. Because loading a Song loads all the Multis it contains, switching from one Multi to another is instantaneous. You can create as many as 64 Songs, each containing up to 16 Multis, and save them as a Set List. Set Lists will appear in the browser, much like Instruments, Multis, or Patterns.

NOW I'M DOWN IN IT

All of the controls you normally associate with a synthesizer are on the Edit page, including the filter, envelopes, LFOs, and so on. You can select from ten filter types in the Filter section. I especially liked that, for more than half the types, four buttons let you choose the filter slope (from 1- to 4-pole) independently of the type. An Overdrive knob adds distortion to all filter types except the three standard VCF types.

The VCF lowpass, highpass, and bandpass types are the same filters that were on the previous SampleTank. Three new ones emulate the Moog ladder filter. The formant filter replaces the Frequency knob with Morph, which shifts the frequency of the formant band, and the Res knob changes the bandwidth.

Another new filter type is the phaser. It's not the same as the effects section's older phaser model and occurs at a different point in the signal

chain. The phaser filter has fewer parameters than the phaser effect, and instead of four filter slopes, it lets you select from one to four stages. Another difference is that envelopes and LFOs can modulate filter parameters, but not effects parameters, resulting in some dramatic phase-shifting effects.

A pair of LFOs gives you a respectable number of parameters to tweak. In addition to the usual rate, depth, and waveform, you can dial in the phase, fade-in rate, and destination—pitch, filter cutoff, amplitude, or pan. Either LFO will begin its wave at the zero point at the beginning of a note, but one can be free-running if you prefer. I was disappointed that ST3 has no more LFOs than the previous version.

I was also surprised that ST3 has only two envelope generators, but I suppose the GUI limits the number of controls that fit on the Edit page. Both are AHDSR generators, with a hold segment between the attack and initial decay. The first envelope is dedicated to shaping amplitude; assign the second to modulate the filter, pitch, or both.

Although ST3 is a sample player and not a synth, comparisons to synthesizers are inevitable because it's so similar to traditional romplers. Because of that, I wish it had more extensive user-programmable modulation capabilities. Other than the two envelope generators and two LFOs, ST3's only modulation source is keyboard Velocity. Velocity can modulate amplitude, filter cutoff, and pitch, as well as LFO depth and envelope sustain. Fortunately, you can assign MIDI CCs to control any Instrument's eight Macro parameters, which allows you to modulate them with external sources such as Aftertouch or an expression pedal.

In addition to the five effects inserts per Part, the master channel has five effects slots. ST3 expands the number of available effects from 33 to 55 by adding new effects borrowed from IK Multimedia's AmpliTube and T-RackS. New effects include amp models, new EQs and compressors, and convolution reverb.

Like SampleTank 2.5, ST3 boasts three playback engines: resampling, pitch shift/time stretch (PS/TS), and note and phrase stretch. Resampling is IK Multimedia's term for standard sample playback, the technique most ST3 Instruments use. In the factory content, all the loops use the stretch engines, as do the solo voices and some of the pianos. You can modify any of the Instruments, sometimes radically, by switching their playback engine.

PS/TS lets you transpose a sample's pitch or change its length independently while maintaining the original's formant structure. It works best when you are editing loops containing chords or multiple instruments. Note Stretch and Phrase Stretch perform similar operations, but they also allow you to alter a monophonic sound's formants, too. However, the manual is a bit sketchy on how to use the Stretch controls.

Fig. 5. SampleTank 3 comes with a large collection of short MIDI files called Patterns. You can assign as many as 128 Patterns to each Part and trigger them from your MIDI keyboard.

CHECK OUT THE LIBRARY

Some sounds are mono and others are stereo, and the sampling rate appears to vary considerably, sometimes within a single Instrument. In addition to new Instruments, ST3 includes all of the content from version 2.5 XL.

The selection of sounds that come with ST3 includes lots of drums, ethnic percussion, basses, guitars, and pianos, as well as orchestral instruments and others used in most styles of music. The sampled synthesizers are particularly good, but the real standout is the collection of vocal samples. Realistic pop solo voices, ensembles, and the gospel choir go beyond what you might expect in a bread-and-butter rompler. Acoustic sound effects are limited to a single Instrument that maps them across the keyboard, though you also get a few Instruments containing electronic sound effects.

Multi-articulation Instruments are Instruments that use keyswitching, Velocity, or the mod wheel to toggle between multisampled articulations, called Elements. For example, you can instantly switch a violin from legato to staccato to pizzicato. Keyswitches are indicated graphically by the color of keys on the onscreen keyboard. On the Edit page, the Element/Articulation menu lets you select which Element you're editing at any given moment.

Loop Instruments are recordings of instrumental performances mapped across several notes on the keyboard, indicated by gray keys that turn red when you trigger the loops by pressing their associated keys. Most are drum and percussion loops. A loop's file name indicates its original tempo. Loops automatically match the tempo of your current project unless you indicate otherwise.

In addition to the huge amount of included content, ST3 can import Instruments and Combis (which are converted to Multis) from earlier SampleTank-compatible products such as Miroslav Philharmonik, Sonik Synth 2, or SampleTron, including sound libraries from Sonic Reality's Xpansion Tank series and other third parties. It can also import mono or stereo user samples in 16- or 24-bit WAV or AIFF formats. If the samples have loop markers, ST3 will retain the loops.

ST3 also comes with a large library of short MIDI sequences called Patterns, which you start or stop by playing single notes on your keyboard or by pressing the Play button in the GUI's right-hand corner. In the browser, Patterns are organized into categories in much the same way as Instruments (see Figure 5). Pattern categories are organized by the name of the most appropriate instrument (such as Piano or Synth Bass), and subcategories are organized by the type or style (such as Chord Riff 01 or Smooth Blues 02) and the original tempo.

Double-clicking on a Pattern loads it into the currently selected slot, which automatically assigns it to a MIDI Note. The first Pattern you select will be assigned to C0, the next one to C#0, and so on. You can also assign a Pattern to any key you choose by clicking and dragging it to the onscreen keyboard. You can transpose Patterns, scale their Velocities up or down, and more. Create your own Pattern by recording a MIDI file with just one track, copying it to ST3's Pattern folder, and rescanning the content.

Unlike with Instruments, which you can assign to Parts only one at a time, you can assign a maximum of 128 Patterns to each Part—one for each MIDI Note. That means each of the 16 Parts can play as many as 128 preset Patterns you trigger by simply pressing its associated key. It's also possible to create a complete multi-Instrument groove by playing a single Pattern for each of the Parts simultaneously. In the standalone version of ST3, Patterns play at the master tempo, which you can change at any time. In the plug-in, Patterns sync to the host application's tempo unless you indicate otherwise. Even with so many Patterns to explore, though, I still found myself wishing for an arpeggiator.

TANKS FOR EVERYTHING

With superior functionality, better effects, a much-improved user interface, and more than six times the sample content of version 2.5 XL, SampleTank 3 is light-years ahead of its predecessor. I liked it the first time I used it, and I liked it even more after getting to know it better. The selection of sounds is outstanding, and the sound quality of most is a noticeable improvement. Although it took years to see an update, IK Multimedia is to be applauded for its accomplishment.

If you've ever been a SampleTank user, then you're going to enjoy exploring all its enhancements, and your music will be all the better for it. And if you play romplers but you've never given software a chance, SampleTank 3 may be just what you need. ■