

# Native Instruments Maschine | £549

The next level of beat production has arrived. Should the MPC be running scared? *Marc '01'* pursues the dream of man and Maschine in perfect harmony...

### ON THE DVD

#### WHAT IS IT?

A software beat production studio with a dedicated USB hardware controller

#### CONTACT

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#### HIGHLIGHTS

- 1 Well-built hardware
- 2 Comprehensive mouse-less software control
- 3 5GB of samples and loops

**E**ven though Native Instruments have produced hybrid hardware/software products in the past such as

Kore, the concept of Maschine is an ambitious step further forward. With every feature of the software built into the impressive MPC-like desktop controller it's easy to forget that the real power of Maschine lies at the other end of the USB cable within your computer. So is Maschine hardware and software in perfect harmony?

First, it's important to get your head around what exactly Maschine is. It's billed as a groove production studio for your computer and to this

end, it offers a huge library of drum kits, loops and instrument presets, plus an environment to process, sample and sequence them into patterns and songs.

The hardware side is a USB-powered controller (not an audio interface), which is used for anything tactile while all the 'sounds stuff' is done by the software. The software interface is great, but the screens and controls on the hardware itself makes it impressively redundant.

#### Rubber and steel

The hybrid metal/plastic enclosure of the Maschine hardware is slim and

light, perfect for partnering with a laptop and slotting into a backpack for gigs. The jet-black paintwork has a minimal amount of labelling or graphics, giving it an uncluttered, stealth like persona we love.

All the buttons are made from the same rubbery plastic and benefit from under lighting. Compared to the competition, the pads are more like Korg's padKontrol, but chunkier. They are a tiny bit smaller than an MPC and have a higher profile too, but feel similarly 'stern' and serious.

The two level lighting is a nice touch. The faint glow means you can always aim for the pads, while the bright glow shows you which beats are being triggered by the sequencer. Meanwhile the dual LCD displays are flanked by a set of eight buttons and endless encoders. These feel nice and solid, are smooth and assured to use and are used for most of the editing jobs as well as live performance.

Round the back is a pair of MIDI sockets for hooking up other gear and when it's connected to a computer, the ports show up as a regular MIDI interface in audio applications. However, it's important to note that currently the Maschine software can't send it's internal sequences as MIDI messages so it can't trigger your external gear over MIDI. It's up to you



#### Master Controls

The Global level functions of Volume, Temp and Swing have their own dedicated knobs controls

#### Dual LCDs

These LCDs keep you updated of the current function assigned to the buttons above and the knobs below

#### Tweak It

Eight knobs for editing parameters for real time tweaking and recording

#### Group Buttons

The eight group buttons switch between the different layers and assign all the controls to that particular voice

#### Pad Factor

The 16 chunky pads have cool back lighting to keep you in the loop

to decide how much of a disaster this is. It can output MIDI clock however, operating as either master or slave and you can attach a keyboard for playing the Maschine's instruments along with a special keyboard mode on the controller to note-based play.

NI provide separate DVD installer disks for Mac and PC users and you can choose whether to install the software, plug-in format (VST, AU, RTAS) and library, which will take around 10-20 minutes depending on your drive speed. The library is meticulously organised and tagged (as you would expect from the inventors of Kore) and you can browse for complete kits or individual sounds. These include all kinds of instruments as well as drums and sound effects, elevating the Maschine beyond a mere 'beatbox'. Everything can be saved: kits, effects, songs, the works.

### The heart of the Maschine

In essence, it is an eight-track sequencer, which can use up to eight separate kits or instruments. Users can build up a track, starting by constructing individual instrument patterns, which are the smallest building block. You would then start layering patterns from the different kits/instruments into a scene, and then arrange up to 64 scenes into a

## Swing Low

As the emphasis is on live beat programming, the swing and quantise functions are essential humanising tools. Swing can be applied at two different levels of hierarchy. This can be on a part-by-part basis or as a global function. This is so that individual parts can sit in their own groove, or the whole track can swing together. To avoid confusion, the

global swing has a dedicated knob located next to the volume and tempo dials, while the part swing value is edited via the LCD.

The feel of the swing is a very important part of a drum machine's personality and part of the reason why the MPC has become such a legend. Maschine doesn't try to emulate the MPC here – instead it offers an

interesting twist to explore. Swing can be applied as a % where 0% is straight, 50% is very funky and 100% pushes the notes all the way over.

This is where 'Cycle' comes in. By default, this is set to the highest value of 8th notes, which gives us the typical feel we know and love, but it doesn't stop there. You can set this to any value, which will give you a whole lot of different feels and can be both an outlandish creative tool as well as humanising.

The third parameter is 'Invert'. This changes the direction of the shuffle so that instead of making it lazier, it pushes the beats forward providing a different emphasis. Neat.



controller but given the advantages of a big display and mouse – why wouldn't you? This is where you begin to get a feel for the workflow, what tasks are better suited to the computer and the controller. The division of labour between the two feels spot on.

limited to two velocity layers. If you're not up to playing your beats (despite all the auto assistance) you're next option is to program in step mode, whereby each pad represents one step of the pattern like old-school drum machines. The backlighting switches

intelligently to show you the steps and sequence position.

Beyond basic sequencing, Maschine offers a massive amount

You can create up to 16 different patterns per group, and patterns have a maximum of 256 bars

song. As mentioned, each sequencer track uses a 'group', which could be a drum kit, instrument or selection of single hits.

A drum kit consists of up to 16 individual 'sounds', which are assigned to individual pads for programming. However, you are not limited to one sample per pad, because a 'sound' can use several samples. These can be arranged across velocity layers for expressive results. The layering is not as sophisticated as Battery, but I was pleasantly surprised to find that a pad could also be played chromatically by switching to keyboard mode. This means you can layer samples across a keyboard, with different samples on every key. You can only add new layers via the software, and not the hardware

Back to sequencing side, you can create up to 16 different patterns per group, and patterns have a maximum length of 256 bars. All lengths can be accommodated and the time signature is set at global level.

Creating beats is nice and easy. There is a built in metronome and auto-quantising for real old-skool drum machine instant results. Notes can be hard quantised or gradually by steps of 50%, while erasing is performed by pressing record and holding down the offending pad. Just like the old days.

There's no need to ever stop while recording patterns, switching groups, or loading new sounds either. The pads have an extra programming mode for multiple samples on pads but unlike the MPC which gives you 16 layers on a pad the Maschine is currently

of scope for editing and parameter automation. These can be tweaked and recorded in real-time or through the software interface.

### Sampling

Got your head around it so far? Well let's take it to the next level. Once you have a killer loop, you might want to re-sample it. Maschine can do this, rendering a pattern to a single loop for manipulation and you can add your own sounds by sampling them through your soundcard inputs or through the plug-in's virtual input in your DAW.

Tools such as Auto Beat Length make the job faster and more streamlined and the hardware has all the controls necessary to get the job done. Just set the start and end points and you've got new sounds in no time.

## SPECS

### Software Requirements

**PC:** Windows XP (SP2, 32-bit)/Vista (SP1, 32-bit, 64-bit), Pentium or Athlon XP 2GHz, 2GB RAM

**Mac:** OS X 10.4, Intel Core Duo 2GHz, 2GB RAM

USB 2.0 Port, DVD drive, 5GB free disk space for full installation

Standalone application, or VST, Audio Units, or RTAS

Audio drivers - ASIO, Core Audio, DirectSound, WASAPI

### Software

**Library:** 5GB featuring Drum kits, instruments, one shots and effects

**Groups/Timbrality:** Eight

**Patterns:** 16 (max length 256 bars)

**Scenes:** 64

**Effects:** Two per sound, plus two per group and master effects

**Effect types:** Reverb (4), dynamics (4), filter, EQ, modulation (5), delay (3), distortion (3)

**Mixer:** Master out plus eight output groups

**BPM range:** 30bpm – 999bpm

**Swing:** Global and individual parts

**Voice settings:** velocity, amp envelope, pitch, start point, FX, filter, modulation envelope, LFO

**Sample recording:** Loop-based auto truncating

**Editing tools:** looping, slicing, envelopes

### Hardware Controller

**Pads:** 16 – illuminated with velocity and aftertouch

**Rotary encoders:** 11 endless

**Backlit buttons:** 41

**LCD Displays:** Two (64x256 pixels)

**Ports:** MIDI In/Out, USB 2.0, Kensington Lock

### Dimensions

**320 x 295 x 60mm**

**Weight**

**1.8 KG**



For loop junkies and remixers, beat slicing is an essential tool for speeding up the process of getting individual hits from a loop and into a new groove. Maschine has a set of internal slicing tools that are accessed via the sampling view button. The plug-in window is the best way to use this and shows the waveform and the slice regions. Two modes are available – transients and 16ths and Maschine will try to calculate a BPM

automatically, but you can also set it manually. Firstly it's essential to download OS 1.02, otherwise you won't have these options. Currently a grip that remains is that if you need to slice your loops to anything other than 16th, then you will need to work around by doubling or halving the tempo to get the right size chunk.

It's frustrating that you can't manually move markers before slicing, but you can after using the 'Apply to'

function. This puts each beat on a pad whereby you can manually adjust each start and end point. And one bizarre omission – why there's no REX file support? Maybe in a software update?

### The soft touch

By now you're probably realising that the real power of Maschine is its software interface. It may seem less glamorous than the hardware and some might wonder why it needs one at all but rest assured it's damn good. There are three main areas to the window: The Scene area at the top, the Editing section in the middle and the Pattern sequencer at the base.

There is also sound Browser that can be toggled out of site when not used, and the whole window can be re-sized to fit your monitor. One good thing about the pattern editor is that it is zoomable so you can resize it, but I would also like to see a kind of snap-to-fit button for maximising the area match to your pattern length.

For most jobs you can choose to use either approach, but there are some functions, such as creating zone layers that are done through software. Personally I don't mind this, as I would prefer to use the computer for 'important' jobs anyway. Another area where the computer rules is tidying up patterns – especially parameter modulation sequences.

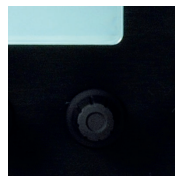
With the editor you can get right in and always get just the right setting locked at every step, something that is quite difficult to do live. Speaking of live, if you like to mix in some 'impossible to perform' beats, then having the editor around to spice things up is essential.

### Life on the inside

While I am sure that a fair percentage will use Maschine as a complete solution, but there are plenty of others who are searching for the ultimate drum machine to work within their DAW. Since Maschine is being offered as a plug-in integration in this scenario is just as important, if not more, than the standalone functionality.

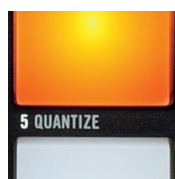
## The Good and Great

Maschine is packed full of goodies – here are three of the best things



> Being able to automate the effects is a powerful tool for any producer. The groove-based step automation makes it especially cool for Dance music and is perfect for warping beats and creating glitchy chaos from instrument loops. The hardware controller knobs can be used to record in live twists, while the software editor can be used to tidy it up to perfection, ready for re-sampling and editing.

> **The included library is a real asset and includes loads of new material not included with Battery or any other NI software. It's an exhaustive collection that covers all bases and thanks to the Kore style tags, it's easy to search for any type of sound. The kits and instruments have been set up ready to play with expression controllers and effects for creating an instant vibe.**



> You can't beat the lighting on the buttons when it comes to playing in a dark club or late night studio session. The two-tone lighting is well thought-out and makes it easy to keep track of what beats are part of the sequence.

Coming from standalone mode, 'Maschine in your DAW' can open up a previously saved project and carry on from where they left off. All sounds, patterns, settings etc are ready for tweaking and Maschine will follow the host tempo. It's worth noting that the Maschine's transport controls couldn't be used to operate the DAW and there were no automation parameters available in the host sequencer aside from the basic volume, pan, send etc.

At present, Maschine uses its internal scene memory for playback

so you will need use an empty pattern of the right length to fill up the space. You can take advantage of multiple outs to add more effects polish to the mix. And as a bonus, use Maschine as a crazy effects unit by routing audio to its sample inputs and automate changes using its internal sequencer.

### Conclusions

There's no doubt by now that Maschine is much more than a powerful drum machine. While it's possible to launch right in and start

presents a bigger picture than LCD displays will. And let's not forget the massive library of sounds that comes with Maschine making it a worthy 'all-in-one' studio solution – albeit one clearly focussed on beat production.

Which puts it squarely into the Akai MPC's territory. That said the Maschine can't be used as the centrepiece in the studio since there's no way to sequence external MIDI gear from its software. As far that other MPC plus, the idea of software latency, that's down to your soundcard and

drivers but we're confident that Maschine can hold its own in this important consideration.

And one area where Maschine definitely comes

out on top is the effects section. If you want up-to-date, tempo sync'd, high-quality processing then Maschine has it for sure. When combined with real-time tweaking, the mangling and transformation possibilities are phenomenal. Maschine is always loads of fun to play too and as a self-contained instrument is capable of producing huge range of tracks from big, fat, lazy Hip Hop jams, to intricate and futuristic Techno.

As a standalone system, it's tight and works very well. The software side can certainly be improved with some refinements but the extra features already added in the OS 1.02 update show that Maschine can be as flexible and all-powerful as Native Instruments want it to be. Issues such as the inability to sequence external hardware clearly crossed some line in terms of Maschine's early role, but anything can be added with a software update.

Maschine is a great synergy of hard and software and it's an impressive start for a new way to make music. **FM**

## It can't be used as the centrepiece in the studio since there's no way to sequence external MIDI gear

along the timeline, and there's no way to record scene or pattern changes from the controller into the sequencer. This is a bit of a shame, as it would be great to see a kind of dual mode whereby users can choose whether to go that route, or use MIDI to trigger scenes/patterns via their host.

It's necessary to arrange the patterns into scenes and then to set the loop point to mark the start and end of the sequence. One problem is that Maschine can't play an empty scene and will jump to the next part,

making basic beats, it will take a bit of time to get used to the big picture, especially when it comes to taking advantage of all the more advanced feature set and their creative potential. The combination of hardware and software is best exploited for what they do well. The hardware is there for all the feel of rhythm programming and all the essential stuff can be accessed within a couple of button presses.

The software supports everything by offering all the hardcore editing functions through an interface that

### MIDI – How To Switch Into MIDI Mode

All those knobs, buttons and pads can be put to good use with the rest of your studio gear by switching Maschine in to MIDI control mode. Pressing the shift and control buttons will get you there, and the lights and display follow suit and disengage from their Maschine functions.

Bizarrely, the manual makes almost no mention of this, aside from pointing to the control button, so a bit of exploration was necessary. There are 10

pre-programmed templates, which cover general MIDI control as well as a selection of NI's instruments, Traktor Pro, Ableton Live and Mackie HUI. As far as I can tell,



there is no way to edit the assignments and make new templates at the moment. Treat this as a bonus feature for now, but all signs suggest there's room for making your own templates in the future.

The pads dish out velocity sensitive MIDI note messages, starting at C-1. The group buttons also transmit Note messages, but also act as octave buttons for

transposing the pads up and down. The knobs all transmit MIDI CC messages, as do almost all the others, save for the two arrow buttons. These swap between two control layers for doubling up the amount controls for the eight knobs and buttons around the LCD.

You don't need to have the Maschine software running to use MIDI control mode.

### ALTERNATIVES



**Akai MPC 2500**  
£999

The MPC can be the studio centrepiece as it can sequence any other MIDI gear with its rock-solid timing. Its workflow has become the standard for many producers but outside the pads, it offers limited hardware controls and a basic effects section.

[akaipro.com](http://akaipro.com)



**FXpansion Guru**  
£99

A firm favourite with the pros – Guru features step based and MIDI style programming. The MPC pad style graphics make it easy to set up with a MIDI controller, plus it's a REX users dream.

[fxpansion.com](http://fxpansion.com)

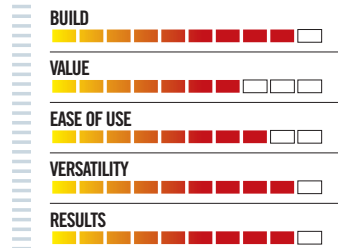


**Motu BPM**  
£299

Motu's Beat Production Machine is a serious software-only rival for those who don't need the extra hardware. Massive library featuring tons of drum kits, samples and instruments, plus recording, editing and effect functions.

[motu.com](http://motu.com)

### FutureMusic VERDICT



More than just a drum machine, Maschine is a whole new world groove for hands on beat makers.