BPM 1.0.5 Installation Guide and Update Notes

OVERVIEW

This document provides installation instructions and late-breaking information about BPM not covered in the *BPM User Guide*.

INSTALLATION

Important! Install the iLok drivers first

Before installing BPM or connecting your iLok USB SmartKey, install the included iLok drivers, as follows:

Mac OS X:

1 Insert the *BPM Installer* CD.

2 Open the *Install This First!* folder and double-click *InterLok Extensions*.

3 Follow the directions the installer gives you.

4 Restart your computer, then connect the iLok USB SmartKey to an available USB port.

Windows:

1 Insert the *BPM Installer* CD.

2 Open the *Install This First!* folder, then the *Drivers32* or *Drivers64* folder, depending on whether you are running a 32-bit or 64-bit system. Inside that folder, double-click *setup.exe*.

3 Follow the directions the installer gives you.

4 Restart your computer, then connect the iLok USB SmartKey to an available USB port.

5 Follow any on-screen prompts regarding iLok driver installation.

Windows users: Uninstall previous versions

Before installing this BPM update, Windows users should uninstall previous versions of BPM by opening the Windows Control Panel, choosing *Add or Remove Programs* (XP) or *Programs and Features* (Vista or 7), and uninstalling BPM.

Next, run the BPM Installer CD

Run the BPM installer first before you copy the UFS soundbank files from the soundbank DVDs, as follows:

1 Insert the *BPM Installer* CD.

2 Double-click *Install BPM* (Mac), *Setup32.exe* (Windows 32-bit), or *Setup64.exe* (Windows 64-bit).

☛ Windows users: If you are running under a standard (non-administrator) user account, right-click on *Setup.exe* and choose *Run As* (XP) or *Run as administrator* (Vista) and enter an administrator user name and password.

3 Follow the directions the installer gives you.

☛ Windows VST users: The BPM VST plug-in is installed in startup disk\Program Files\MOTU\Vstplugins. Point your host application to this folder, or copy the *BPM.dll* and *BPMSampler.dll* files to the Vstplugins folder of your choice.

Then copy the UFS soundbank files to your hard drive

BPM includes two 8 GB (dual layer) *soundbank* DVDs that contain a total of 15 GB of drum samples, loops, phrases and multi-sampled instruments. These sounds are organized into two separate ".UFS" soundbank files on these DVDs: *BPM.ufs* and *BPM.ufs1*.

To install the UFS soundbank files, copy them from the DVDs to the following location:

Mac OS X
startup disk/Library/Application Support/MOTU/BPM/

Windows
startup disk:\Program Files\MOTU\BPM\

The term *startup disk* in the path names above is the name of your system hard drive (usually *Macintosh HD* or *C*).

☛ The install location listed on page 13 in the printed *BPM User Guide* is incorrect; install the sounds in the location above.

Place the UFS files directly in this location. Alternatively, you can place the UFS files in another location (possibly on an external or second hard drive), create aliases (Mac OS X) or shortcuts (Windows) to them, and then place the aliases or shortcuts in this location.

☞ If you create aliases or shortcuts, the names must be the same as their corresponding UFS files. If the alias or shortcut name includes the words *alias* or *shortcut to,* it will not work.

☞ The *BPM.ufs* and *BPM.ufs1* files MUST be placed in the same folder.

NEW FEATURES IN BPM 1.0.5

Native 64-bit Windows support
The standalone application and VST plug-in now support native 64-bit operation when using the 64-bit version of Windows Vista or Windows 7.

☞ As a 64-bit version of Pro Tools is not yet available, a 64-bit RTAS plug-in is not available at this time. RTAS users should continue to use the 32-bit version of BPM and a 32-bit version of Windows.

Arpeggiator
Each rack part now has an independent arpeggiator.

Accessing the Arpeggiator
Select a rack part, click the *Edit* display tab, then select the *Arp* tab in the virtual LCD screen. To enable the arpeggiator, click the *Enable* button.

Steps
The number of steps is set with the *NumSteps* knob, from 1 to 128. The *Resolution* knob sets the value of the steps, in metric values from 32 bars to 64th note triplets.

You can manipulate each step in the following ways.

To do this	Do this
Enable/disable step	Click checkbox
Merge with previous step	Shift-click checkbox
Change velocity	Drag slider/up down
Change length	Shift-drag slider left/right

Additionally, the step length can be set globally with the *StepLen* knob. The *StepLen* knob setting is combined with the setting of each individual step. For example, if you have shortened a step to 50% by Shift-dragging it and have the *StepLen* knob set to 50%, that step will be 25% of the usual length.

The *VelBlend* knob controls the depth of the steps' velocity. At 0%, the full velocity range is used; at 100%, a constant velocity is used (effectively making all steps the same velocity, regardless of their individual values).

Trigger Mode
TriggerMode determines where in the pattern of steps each note will start.

Note: each played note restarts the from the first step.

Legato: the first played note starts on the first step, and the pattern of steps continues as additional notes are played. If all held notes are released, the pattern will restart from the first step when the next note is played.

Song Position: the position in the pattern is determined by the song position, regardless of how notes are being played.

Hold
When *Hold* is set to True, arpeggiated notes are held.

Figure 1: Arpeggiator

Mode

The *Mode* menu determines the order in which the arpeggiated notes are played.

Octave

The *Octave* knob determines how many octaves above or below the played notes will be arpeggiated.

Strike and Repeat

To further tailor the way in which each arpeggiated note is triggered, use the following settings:

Strike: the number of times the note is triggered before moving on to the next note.

RepeatBottom: the bottom note is repeated.

RepeatTop: the top note is repeated.

Groove

The *GrvAmount* knob applies swing to the steps.

Arpeggiator presets

Arpeggiator settings can be saved and recalled with the arpeggiator preset controls.
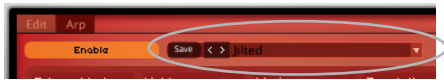

Figure 2: Arpeggiator presets

A variety of factory presets are included, and you can also save and recall your own. Presets can be loaded by selecting them from the menu, or with the next/previous preset buttons.

Disabling the arpeggiator

To temporarily disable the arpeggiator, click the *Bypass* button. To remove the arpeggiator, deselect the *Enable* button.

☞ The arpeggiator returns to its default settings when the arpeggiator is removed. If you would like to recall your current arpeggiator settings, save an arpeggiator preset before removing it, or use *Bypass* instead.

Enhanced loop slicing

You can now add and edit slices in the Clip window.

To do this	Do this
Create slice	Double-click in the top ruler
Move slice	Click and drag a slice
Lock slice	Right-click a slice and choose Lock
Mute slice (temporarily disable)	Right-click a slice and choose Mute
Delete slice	Right-click a slice and choose Delete

Mono option in BPMSampler application

Previously, the BPMSampler standalone application always supplied a stereo signal. A *Configuration* menu now provides the option to use mono or stereo.

Other changes

Improvements, optimizations, and refinements can be found in the following areas:

- **Performance:** various CPU optimizations.
- **Loading:** locating missing samples.
- **Racks:** scrolling to newly created parts.

ENHANCEMENTS IN BPM 1.0.4

Improvements, optimizations, and refinements can be found in the following areas:

- **Sequencer:** default velocity in the step sequencer; entering and dragging notes in the piano roll sequencer when Snap To Grid is enabled; deleting notes with Delete key in the piano roll sequencer.
- **Scene**: pasting shallow copied scene; toggling Live mode.
- **Browser**: loading saved performance file containing audio files loaded via the browser.

ENHANCEMENTS IN BPM 1.0.3

Improvements, optimizations, and refinements can be found in the following areas:

- **Sequencer**: editing patterns while playing.
- **Browser**: sample loading.
- **Song**: improved playback.

NEW FEATURES IN BPM 1.0.2

One shot pads

Samples can now be configured as One Shot in the Pad Editor by right-clicking the waveform and choosing *Set As One Shot* from the contextual menu. When a sample is configured as One Shot and its amplitude envelope is configured as ADSR, the note-off event is ignored and the entire sample will be played.

Figure 3: One Shot sample setting

Step Sequencer additions

Several new abilities have been added to the Step Sequencer:

■ **Copy/Paste Line**: In addition to saving and loading sequencer line presets, you can now copy and paste lines.

■ **Double Resolution**: To simultaneously double the resolution and the number of steps in the sequencer, right-click and choose *Double Resolution*.

The sequence will sound the same as it did, but you will be able to program notes at a finer resolution. This enables you to start programming a sequence at a lower resolution (16th note, for example), then decide later that you want to add higher resolution notes (32nd notes) between the notes of the previous grid.

■ **Factory grooves**: In Graphs view, you can now apply the factory groove presets as well as your own saved grooves.

Browser preview volume slider

There is now a volume slider in the Browser settings area to control the preview volume.
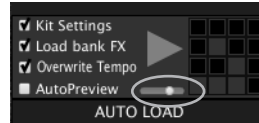

Figure 4: Browser Preview volume slider

Locking pads with Map on Pads

When using the Clip window's *Map on Pads* feature with sliced audio, it will map each slice to the current bank's pads starting with BD1. However, if some of those pads already contain samples and you don't want their contents to be overwritten, you can "lock" pads by using the Pad selector grid in the browser.
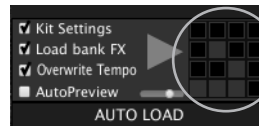

Figure 5: Use the Pad selector to "lock" pads.

Pads that are checked (black) will be overwritten; pads that are unchecked (empty/gray) will be locked. For example, you can use *Map on Pads* to map eight slices from one loop, lock those pads, then load eight slices from a second loop to fill all sixteen pads.

Metronome improvements

Controls for BPM's metronome have been added to the transport section. Click the metronome icon to toggle the metronome on or off, and drag the slider to set the metronome level.

Figure 6: Metronome controls

MIDI beat clock sync

The standalone application can now sync to incoming MIDI Beat Clock.

When the Sync button in the transport is enabled, BPM will sync to MIDI Beat Clock messages received on any of its MIDI input ports (as chosen in the *Audio and MIDI Settings > MIDI Devices* tab).

MIDI modulation

MIDI Modulation is an extension of BPM's MIDI automation capabilities. MIDI Modulation works as a real time control that modulates a parameter's value without changing the

parameter's setting itself. It can either add to or subtract from the parameter's current value, while at the same time preserving the original value of the parameter.

Option/Alt-right-click (or Option-Control-click with a single button Mac mouse) to bring up the MIDI Modulation window. The MIDI Modulation window looks very much like the MIDI Control window, except this window also has a slider. For a negative modulation value, drag the slider to the left; for a positive value, drag the slider to the right.

Figure 7: Adding a MIDI modulator

This is useful to provide an extra degree of control and variance over the details of your sounds. For example, try using MIDI Modulation to modify the filter cutoff frequency. You can also use it to create crossfades between different controls. For example, you could assign two banks to the same controller: modulate volume on one bank with Expression (CC 11) and drag the slider to the right, and modulate volume on the other bank with Expression and drag the slider to the left. The result is that you could crossfade between the banks by moving your expression controller.

Other changes
Additional improvements, optimizations, and refinements can be found in the following areas:

■ **Pads**: amplitude envelope settings when loading instrument preset on pads; triggering pads with multiple layers assigned to Ex. groups; using Ex. group 32.

■ **Browser**: recall of options (Auto-Load, Auto-Preview, etc.).

■ **Recording**: triggering rack part after sampling into it; preventing record source from being changed while recording.

■ **Graphics**: numerous improvements to the appearance and response of graphics and graphical operations.

■ **Song**: improved playback.

■ **Miscellaneous:** editing parameters via text input; reset of global settings when clearing performance; changing pad outputs after clearing performance.

NEW FEATURES IN BPM 1.0.1

Using sliced loops in banks
In addition to using loops in rack parts, you can now load sliced loops as kits. When a sliced loop is loaded in a bank, the first 16 slices of the loop will be mapped to the pads.

You can load a sliced loop in a bank by selecting it in the browser while viewing a bank. If you want to load the entire loop on a single pad, turn off Auto-Load and drag & drop the file directly onto a single pad. To load a sliced loop as a kit via drag & drop, drag the sample to the areas between the pads, rather than directly onto a pad (the highlighted region will clue you in to which way it will load).

Slicing loops
You can now create slices in audio files that do not already have slices, by sampling or dragging audio into the Clip window.

Figure 8: Clip window

In the Clip window, you'll see controls for slicing in the lower left corner: the *Slice* on/off button to toggle slicing, and the pop-up menu to choose if slices will determined by *Transients* or the *Grid*. When Transients is chosen, a sensitivity slider is shown (see Figure 9, below); when Grid is chosen, a menu with grid settings is shown (1/4, 1/8, 1/16, etc., including dotted and triplet options).
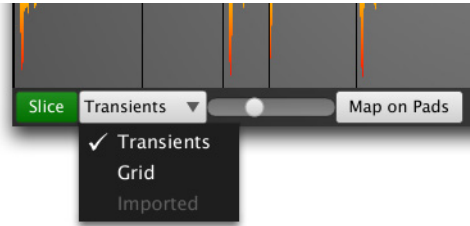
Figure 9: Slice controls

To audition a selection in the waveform, press the *Play* button at the top, next to the *Sampling* button, or right-click the waveform and choose *Play Selection* from the contextual menu. You can easily select a slice to audition it by double-clicking on the slice's waveform.

After the loop is sliced, you can use the menu in the upper left to save the entire file as a sliced loop (*Save as...*) or export the slices as individual files (*Export slices*). Alternatively, you could export the slices directly to the current bank's pads by clicking the *Map on Pads* button in the lower left.

Figure 10: Saving or exporting the sliced loop

Additionally, when loading a non-sliced loop in a rack part, you can now enable Slice mode to automatically slice the loop, based on transients. If you need more control over the slices than the automatic slicing allows, drag & drop the file into the Clip window for further processing.

Importing multiple samples
There are two new ways to easily import multiple samples at once. You can now drag & drop multiple samples:

- To the space between pads to load them on separate pads.

- Onto a pad to load them as layers on a single pad.

Pad templates
You can now save and load templates of the MIDI note mapping of BPM's pads. This can be done in two different ways:

1 From the Preferences

Choose *File menu > Preferences* and select the Mapping icon. The grid of numbers represents the MIDI note numbers assigned to each pad. Assign the desired notes, then click

Save to save a pad template. If you would like to use the mapping that's currently displayed as your default, click *Save As Default*. To load a pad template from disk, click *Load*.
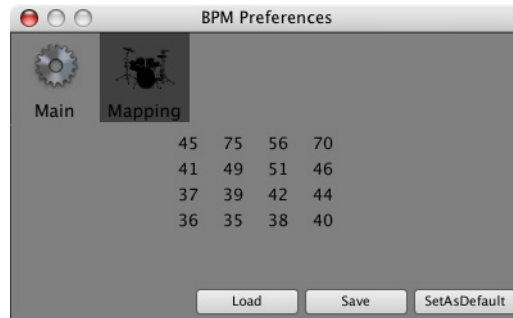

Figure 11: Mapping preferences

2 From a bank

While viewing any bank, right-click in the space between pads. From the contextual menu, choose *Save Pad Template* to save the current pad assignments as a template. To load a pad template, right-click in the space between pads and choose a template from the list — you'll see both factory and user-created pad templates in the list.
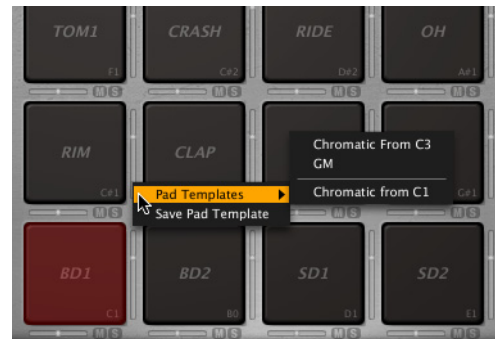

Figure 12: Pad template menu

BPM pad presets for hardware controllers
The BPM version 1.0.1 installer is accompanied by a folder of BPM pad presets for popular hardware pad controller products, including the Akai MPD16, Akai MPD32, KORG padKONTROL and the M-Audio Trigger Finger. If you own one of these products, load the supplied BPM pad preset into the hardware's utility software to load BPM's pad configuration into the controller hardware. For details, consult the documentation for your pad controller.

Mono version of BPMSampler
BPMSampler is now available as a mono or stereo plug-in, enabling you to sample external sources as mono or stereo files.

Save Performance And Samples As

A *Save Performance And Samples as...* command has been added to the File menu. This enables you to create a self-contained copy of everything in your performance.

Editing note velocity in the Piano Roll Sequencer

To edit note velocity in the Piano Roll Sequencer, enable the Selection tool, shift-click on a note, and drag up or down. The note will be shaded darker for low velocities and brighter for higher velocities.

Other changes

Additional improvements, optimizations, and refinements can be found in the following areas:

■ **Saving & Loading**: saving files with periods in their name (e.g. "Shrapnel.1", "Shrapnel.2", etc.); loading DrumOscillator presets via the Browser; reloading a sliced loop after the slices were edited in an external application (MachFive, Apple Loop Utility, etc.); bouncing to disk in some hosts.

■ **Transport**: response of Play and Stop buttons when controlled via MIDI CCs, e.g. from the Akai MPD32.