

# moodscaper advanced guide overview

*Moodscaper is a generative music app and a great personal companion for studying, providing non-intrusive headphone music at work, relaxing, meditating and even sleeping. Just launch the app, tap automatic play, and moodscaper will produce melodic, atmospheric and evocative ambient music in a “light”, “dark”, “space”, “happy” or “sad” mood.*

*Moodscaper is also an easy to use instrument for creating epic-sounding pads and effects as part of a larger iPad-based music-making setup.*

This guide will go cover the more advanced features and technical details of the app along with some tips and tricks I hope you will find useful when using moodscaper in a music-noodling context. If you're after the basics, please check out the quick start guide, also available at [moodscaper.com](http://moodscaper.com)

This guide also applies to the other \*scaper apps such as pianoscaper.

But before we continue... thanks for purchasing moodscaper - I hope you enjoy it! Rob Jackson

## Auto-Play

The auto-play button toggles between manual and auto-play mode. When in auto-play mode, the other main instrument buttons (except mood) are disabled. For iPad, the left hand effects section is **not** disabled during auto-play, allowing you to manipulate and augment the sound further.

In auto-play mode, moodscaper will generate a loop-based arrangement of around 4.5 minutes in duration. No loops are pre-programmed - they are created entirely on-the-fly which means it is extremely unlikely you will ever hear moodscaper perform two identical pieces.

During auto-play, moodscaper will select a mood at random (default) or you can set a preference by tapping the mood button.

Auto-play will also respect the current volume / dynamics control slider. So for example, for super mellow auto-play soundscapes, set the slider to around half-way or less and this will result in generally more mellow and sparse arrangements. Note that even if you turn the control all the way up,

auto-play won't get quite a full-on as it does during auto-accompaniment and auto loop generation - that would just be a bit too much really. These more advanced features will be described later, so in the meantime, less than half-way means nice and chilled.

**You are welcome to use music generated by moodscaper in your own projects on a royalty- free basis. All that I ask is that you include a simple credit containing the name of the app. Also, please share your work - I love to hear what people do with the app!**

## Main instrument keypad

The instrument keypad is a playable virtual keyboard arranged in rows of 5 notes corresponding to the scale for the current mood. The sounds in moodscaper are sample-based and intended for evolving pad type sounds - this is why the envelope of each key has a gentle attack and release. Some of the samples are quite long and are tiny compositions in themselves. In many cases, there are up to 6 samples assigned to one key allowing for a randomised "round robin" effect and

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often you will hear two independent samples playing as a result of one key-press for added variation and epicness!

Each colour-coded row on the keypad represents a voice which denotes its pitch or function. The five voices from top to bottom are:

- Upper treble • Lower treble • Middle
- Chord
  
- Bass

Treble voices can handle 3 keys down simultaneously, middle can play 2, and chord and bass will only accept 1. Overall, the instrument is capable of playing 16 simultaneous sounds.

When a key is playing, it is highlighted, and the corresponding voice automation (triangle) button will also be highlighted. Voice automation will be covered later.

The chord voice generates (hopefully) pleasing chords based on the root note of the keys in that position. For added harmonic interest, some notes are included outside the pentatonic scale for the current mood. The base chords that moodscaper uses for each mood are as follows:

- Light: E-F#m-A-B-C#m
- Dark: Em-F-A-Bm-Dm
- Space: Em-G-Am-C-D
- Happy: E-F#m-G#m-B-C#m • Sad: Em-G-A-Bm-D

Looking at these chords, you can see that the light mood could also be considered suitable for a piece based in F#m with a pentatonic minor scale. And space, can be used for a piece in the key of A minor. If you're playing along with other instruments, the full minor scale works well in space mood too, with the following notes: E F# G A B C D - which is the relative major G scale.

The bass and chord voices have a special relationship based around root notes. When you press a chord key, the corresponding bass key below it will play automatically. This feature can be toggled-off using bass mute which will be covered later. Also, when pressing a bass key with chord automation on (also covered later), the chord above the bass key will play automatically.

When you change root notes with a bass or chord key, "hints" (small blue circle with a dot) will be displayed on keys that should sound good with that chord. These suggestions are based on the notes moodscaper tends to choose during auto-play or auto-accompaniment and the hints also vary according to the dynamics / volume slider suggesting more complex harmonies for higher levels.

Bass and chord keys can be latched or droned by tapping down on the key, and sliding away from it before releasing. This is sometimes called "touch-up outside" in iOS-developer-speak. Tap again to unlatch the key. Touch up outside is used in several advanced moodscaper functions.

## Bass Mute

The bass mute button toggles whether the bass notes are played. However, the bass keys are still fully functional and the active highlighted key determines the current root note used by moodscaper's voice automation. Bass mute can be used tastefully to create a sense of variation and light relief in your arrangements, as the bass samples are, by design, pretty full-on.

## Voice Automation

Many people find voice automation tricky when they first start getting to grips with moodscaper. In fact, I have it on good authority that one of the greatest and respected figures in ambient music found this area a tad confusing. I will try and explain voice automation as best I can, and please take the time to figure it out - it's really quite powerful when combined with loopers in the context of live performance and can also make you look like a musical genius if you aren't one already.

The voice automation keys correspond to the chord, middle, lower treble and upper treble voices. The colour of the keys match the corresponding voice. In iPhone portrait mode and on iPad (as shown here) they are laid out left-to-right. In iPhone landscape mode, they are arranged top down, adjacent to the correspond voice keys.

When a voice is automated, the keys for that voice are disabled and the key borders are dimmed as a visual cue. Maybe that's what's so confusing. Anyhoo...

Once turned on for one or more voices, moodscaper waits patiently for a new root note. You may recall a new root note is established by pressing a bass or chord key, at which point, voices that are automated may, or may not automatically play notes until a new root note occurs. Whether any notes are played, and how many notes, is random, and also dependent on the limits of that particular voice - the chord voice for example will only every play one key / chord at a time. The notes that are played are also random, but rule-based. At the heart of moodscaper's generative engine (as heard in auto-play) is a set of rules that basically define what notes might sound good with other notes in certain circumstances, aka harmony. So for example, if you wanted to play big- sounding random chords with one finger, simply turn on voice automation for all voices then start playing bass keys.

As you play new root notes (bass or chords) moodscaper will also measure the time between your notes and randomly generate note on or off events in the gaps between yours for added variation. If you are playing to a set tempo, the effect can be quite musical and natural-sounding - that's the idea anyway!

But there's more...

Voice automation behaves rather differently when you have loops running, and this will be covered when we look at loopers in more detail round about now.

# Loopers

The loopers in moodscaper are essentially touch event recorders, not audio loopers like the ones you're maybe more used to. Loopers in moodscaper can be used to record the keys you play on the instrument key pad. By recording different parts into different loopers, you can create quite complex and evolving soundscapes which is really what moodscaper is all about. The loopers have kept me amused on many a long train journey and during boring presentations. Here are the three main instrument loopers in various states:

From left to right, the loopers are in playing, armed and recording state. If there is no border highlight, then the looper is idle. Basic loop operation is as follows, starting with an idle looper:

- Tap once to arm (orange)
- Tap again or press any instrument key to start recording (red)
- Tap again to end the loop and start playback (light blue)
- Tap again to toggle in and out of overdub mode (red)
- Double-tap to stop and clear the loop and return the looper to its idle state

When a looper is running, the arrowhead will show its progress through the loop and briefly flash at the start of the loop.

That's looper basics covered but there are also some slightly more advanced features just a slide and a "touch-up outside" away...



Note that one of the loopers has a double-ring. I call this the primary looper. One double-ring primary looper to rule them all! Or something like that.

Note that when you stop / double-tap the primary looper, all voice auto-generation will be turned off. This is by design as a result of a feature request so notes aren't left hanging when you want to end the performance of a piece. Previously, you had to turn off the hanging notes by switching off the active voices that were being automated. This is now handled automatically.

Touching up outside the looper allows you to access auto-length and auto-populate features. Let's run through a few scenarios.

Say for example you have recorded a loop in the primary (double-ring) looper and you want one of the other "secondary" loopers to be exactly the same length. You do this by touching down on an idle looper and sliding away from the button before releasing your finger. When you do this, the looper should look like this:

When you release your finger you will have a new empty loop the same length as the primary looper and this secondary looper will be in overdub mode as normal.

Looper auto-population is a way of tapping (no pun intended) into the auto-generative features of moodscaper and integrate them seamlessly into your own performance. For this to work, you need the primary looper to be in the driving seat so to speak, and to get decent results, the primary looper should contain more than one root note. To put it another way, if you think you might want to auto-populate your other loopers, always have your main bass or chord progression in the primary looper.

Just to recap, root notes are inferred by bass or chord key presses recorded in the loop.

So the scenario here is that you have a bass or chord progression already running in the primary looper. Set an idle looper to be the same length by touching down, dragging and releasing as described earlier. With the secondary looper running in playback or overdub mode, do the tap down, slide and release move again. Prior to release, and depending on whether the looper was in playback or overdub mode, it will look like this:

Now when you release, the secondary looper will be automatically populated with instrument key events that should sound good with your bass line or chord progression using the middle or treble voices. The events should occur at reasonably valid musical intervals either at the same time as the bass / chords or between them. By design, the new generated events will be quite sparse. This is because you can repeat the auto-populate process adding new events as automatically generated overdubs, and moodscaper will do its best to add different events with each pass.

Loop auto-population will also respect the level of the dynamics / volume control described later. Basically, higher settings will result in loops with more notes and more complex harmonic intervals.

To avoid confusion (or maybe to add to it) the secondary loopers have preferences as to which voices they tend to use. The central looper will generate notes in the range covered by the middle and lower treble voices whereas the outer / upper looper (depending on screen orientation) will



generate notes in the range covered by the lower and upper treble voices. So you can still retain some control over your arrangement by deciding which secondary looper to auto-populate.

Once you have your bass or chord progression going in the primary looper, auto-populating the secondary loopers is an easy way to get something big and musical-sounding going very quickly. This is basically what moodscaper does by itself when in auto-play mode.

But wait... there's more to looper auto-population!

Let's say you're not sure how to start a piece, or you've blanked at a gig, and you just want to get a simple 4 bar progression going to kick things off. Good news - moodscaper can do this for you!

On the **primary** looper, do the touch-down, slide move again and the looper should look like this:

When you release, the primary looper will now contain a random 4 bar bass **or** chord progression. Once more you're tapping (sorry...) into the generative engine here.

If you prefer a chord loop only, simply mute the bass and, and if moodscaper didn't create a chord loop, turn on chord automation to auto-play chords while the bass is muted.

There is another trick with bass / chord loops in the primary looper that can be used to add some variation to your extravaganzas. And the trick in question is root note substitution using relative major / minor chords. Looking at light mood as an example, you may recall that the corresponding chords for the root notes are E, F#m, A, B and C#m. Notice that the F#m / A and C#m / E are relative major / minor counterparts. With that in mind, let's *Get Lucky*, and say you have the following bass loop running in the **primary** looper in light mood - F# - A - C# - B. Yep, you

guessed it, touch-down, and slide and the primary looper should look like this:

When you release, the bass notes will change to A - F# - E - B (note that the B has been left alone - best thing with bees) and anything you already had running should still sound musically valid due to relative major / minor inferred chord substitutions. This is assuming it was sounding musically “valid” to begin with, but let’s not debate what constitutes musical validity... Please note that moodscaper doesn’t apply **every** possible relative major / minor chord alternative because, quite frankly, some of them were turning out just plain wonky-sounding and we don’t want that at your next big gig, do we. Or maybe you do. Sorry, if that’s the case.

## Voice Automation & Looping

I promised we’d come back to this! Voice automation behaves very differently when you have a **primary** looper running, **and** that looper contains bass or chord events. Instead of just droning on and on like the worst ever supply teacher, automated voices will use some of the techniques you are hopefully now familiar with during your adventures with loop auto-population.

In other words, moodscaper will keep randomly selecting notes it considers to be “good notes” at reasonably musically valid intervals in time.

This is a great way to get the app to “do something” while you’re planning your next move or need a comfort break and / or another beer.



In auto-play mode, moodscaper will turn on voice automation now and again between pre-populated loops as a way of creating random-sounding incidental ad-lib notes between the main melody loops. When that happens, imagine the little moodscaper elf inside your iPad running to the fridge and back, with a beer in its little Elfin hand.

## Effects and Additional Instrument keypad



This view appears to the left of the iPad main view and the secondary view on iPhone. moodscaper has several built-in effects - a low-pass resonant filter, a multi-delay line and reverb. Effect parameters are altered using a simple per-effect “tweaker” slider. Changes to this slider can also be recorded in loops.

You also have a couple of extra loopers which operate in the same way as described in the looper section of this manual earlier. Please note however that these loopers currently **do not** support the advanced tap / drag features such as auto-length and auto-population. These loopers aren't dedicated to the effects section - anything can be recorded by any looper. I just sometimes find it easier to organise myself that way - 5 loopers on the go can get a little confusing.

There is also an additional 20 key instrument keypad that can be customised to include your own samples.

## Master Volume / Dynamics Control

Finally, at the bottom of the screen, there is a master volume / “dynamics” slider as a convenient alternative to fiddly hardware switches. The volume adjustment is applied **pre-effect** allowing you to “play” the control like a guitarist might use a volume pedal going into their invariably vast echo pedal collection.

Changes to this control can also be recorded in loops.

This slider doesn't just change the volume - it also changes moodscaper's “dynamic” properties.

At low settings, the envelope of the sounds will have a more gentle attack and decay more suitable for more subtle and mellow pieces. As you increase this control, as well as a volume increase, you will also get faster attack and decay times, similar to the way a string player has to attack their instrument with the bow. It's a subtle effect, but adds to the illusion (hopefully) that it's more than a simple volume control.

The “dynamic level” also influences moodscaper's generative engine, both in auto-play and during voice auto-accompaniment and auto-loop population. For higher settings, notes will be generated with more probability resulting in “busier” arrangements. Higher settings will also result in more complex note choices harmonically speaking - in some cases, this could sound dissonant to some ears when max'd out. However, due to the pentatonic basis of moodscaper, I personally don't

think this is ever going to sound massively “out of tune” - think more “edgy” and “dramatic”!

For super mellow auto-play or voice accompaniment, set the slider to around half-way or even less.

## Effects

There are some fabulous IAA and AU-based effects available for iOS, so why the heckity-flip build effects into moodscaper, you may be wondering. Much as I love all the great effects that are out there, I also love being able to just launch moodscaper spontaneously, and be making a big noise within seconds, without having to set up complex effects chains - much as I enjoy that too, when time permits.

So with that in mind, there are no big lists of parameters with moodscaper’s built-in effects. All you have is a simple slider per-effect, which roughly equates to less or more.

From left to right, you have a low-pass resonant filter, a double delay line, and reverb. As you change between effects, the parameter tweaker slider will move to the current overall value for that effect.

Under the hood, the single slider actually changes multiple parameters in different ways. For example, in the case of the delay, the slider changes the decay time, low-pass frequency cutoff and wet / dry mix. For the filter, the frequency is swept exponentially and the resonance ramped- up linearly.

To quickly reset the effect slider to its default value, touch down on the slider circle, and yep, you guessed it, drag your finger away and release - the slider indicator should move gracefully to the default value. Note that by design, this behaviour will **not** occur if you drag away after setting the slider to the minimum or maximum values - that would just be plain annoying, right? If you want an “effects off” setting, the filter should be set to maximum and delay and reverb sliders to minimum.

Did I mention you can record effect slider changes in loops? The observant reader will have noticed I did, but I’m going to mention it again. Recording subtle (or not so subtle) filter sweeps, for example, is a great way to add variation and a sense of movement to your performances. Periodically ramping up the delay is also a really nice dubby trick.

When you change the effects slider, moodscaper will do its best to create smooth transitions. This is especially desirable when sweeping the filter frequency. In the latest version, this smoothing effect means you don't have to be so concerned with finishing your recording with the slider thumb indicator in the same position as when you started. In other words, don't worry - moodscaper's going to look after that stuff for you because it tries to be nice like that.

Please also note that changing a slider when a loop is armed **does not** automatically put the looper into record mode like an instrument key does. This is by design as it makes more sense if you want to record some notes along with say volume swells - you want your loop to start when you hit an instrument key - not when you accidentally nudge the slider. Just remember to tap to arm, and tap again to record when you want to record only slider events.

The main thing to take away with the built-in effects is that I've tried to tune the parameter ranges and response curves so there are no big "surprises" or volume spikes and there are musically usable sounds throughout their entire tweaky range. So you can go forth boldly with your effect tweekage safe in the knowledge that you are highly unlikely to blow up the local venue's crusty old PA system or (more importantly) upset your cat.

## Additional Instrument Keypad

The keypad is pre-loaded with "complimentary" mood-based samples, one per key, making 60 sounds in total that are re-assigned as you tap through different moods. The sounds have been *influenced* by the notes of the scale for the current mood, but they have also been designed to sound *reasonably* good together pretty much regardless.

So while there is an element of pitch to all the sounds, they're really more designed for ambient effects, so in space mood for example, there are the obligatory high filter whooshy sweep type sounds assigned to the upper row. In contrast the lower keys in dark mood are ominously gloomy-doomy.

In the same way that bass and chord keys can be latched / droned on the main instrument keypad, **all** the keys on this keypad can be latched droned using the classic touch, slide and release manoeuvre. Up to 5 keys can be latched, with each subsequent latch operation resulting in the "oldest" key being released and so on.

Sounds generated from this keypad, are by design, mixed a little lower than the main instrument sounds. There's also some **serious** auto-panning going on here which is randomised. This can get pretty trippy on headphones - you have been warned!

It's possible to produce some rather interesting soundscapes using only this keypad, along with some looping, latching and effects tweaks. This gets especially interesting when you throw your own samples into the mix!

## Inter-App-Audio (IAA)

Inter-App-Audio is Apple's way of allowing iOS music apps to "talk" to one another. For example, you could record the audio from moodscaper with an IAA-enabled host or process the sound further using IAA effects.

There is no special setup required if you want to use moodscaper in this way, as it registers and reconfigures itself when a host app tries to connect. In theory, IAA should just work.

The current version of moodscaper reveals itself to the IAA-enabled world as a "generator". If all you want to do is record and process moodscaper's audio, all is good. However, moodscaper will **not** show up in iOS DAWs such as Auria or Cubasis as these apps expect to see IAA **instruments** that they can communicate with via MIDI, so they tend to ignore generators.

If you want to record audio from moodscaper, I highly recommend AUM - it just works, no fuss. No affiliation either by the way!

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## And Finally...

A big thanks to all the support thus far, and a super big shout out to the pioneers, testers and evangelists who have been nothing but encouraging and inspirational right from day 1.

Hard to believe while I'm writing **updating** this, the app is only a few months **over a year (!)** old, and it's already gone places I never thought it would. This is largely due to the great ideas and suggestions from you guys, so keep 'em coming, and I will do my best to keep evolving the app via frequent and **free** updates. Happy moodscaping! -Rob

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