Dappledark Studios

LOCKDOWN

LOCKDOWN Overview

Quick Start

A Very Warm Welcome

Hello ... and thank you for choosing us here at Dappledark Studios. If you can't wait to get started, simply read the next few paragraphs and start hitting some pads :)

Main Audio Units

In a nutshell, LOCKDOWN creates songs using patterns from three audio units. These are Drummer, Player and Slicer. Any song patterns you paint on the Master Sequencer timeline will link to one of these three units. The Sequencer has track types that map onto each of these units. You can create drum patterns on the Drummer, note sequences on the Player (including the ability to select sampled instruments and synths) and audio loops using the Slicer. You can then simply drag and drop patterns from each of these units onto your timeline to create your song.

Layering And Discovery

Each of the audio units, the Drummer, Player and Slicer, overlay what they are currently playing on top of the Master Sequencer and these units move along the Master Sequencer timeline. You can therefore test different patterns from these units without painting anything on your song structure. You can also play your song and multiple units together. You can use the Song and Pattern buttons, available against each unit, to test your ideas by enabling and disabling different units.

Sound Shaping

Every pattern within each of the audio units can have its own pre-fader FX Rack. These FX units are applied before entering the master Mixer. Against each track on your song structure you have further access to a range of post-fader FX Racks. These racks can be shared across tracks or dedicated to each track in solo form. You can record automations against your FX Racks and also use a range of convenient volume automation presets against each pattern of your song.

New Project

To make a clean start, you can use the new project icon ▤ to start a clean project. LOCKDOWN understands song structures. You can choose to create a project with a single section timeline or a structured timeline consisting of different song sections, which you can edit and adapt. You can also choose from a range of pre-defined song templates for inspiration using icon ▦. Enjoy!

Intro

Installation - Online And Offline

LOCKDOWN is a Progressive Web Application (PWA). You can use it online and offline. You can learn more on the [installation info page](#).

### Create Amazing Tunes Anywhere

Through the rest of this documentation we will show you just how easy it can be to produce professional-grade songs using LOCKDOWN. LOCKDOWN has everything you need to produce amazing tunes and you will be jamming from the minute you open the studio. LOCKDOWN is custom-designed for electronic music. It has a cool collection of sonic wizards that can instantly create drum loops, audio loops, note sequences and pre-defined FX racks to transform your ideas into complete song structures.

We love sound shaping ... and you will find some amazing audio units, with their own unique playgrounds, to help you create, slice, shape and arrange your loops into complete songs. We designed LOCKDOWN to be creative, fun and experimental ... focused on discovering sounds, loops and arrangements you would not normally conceive during typical workflows. LOCKDOWN is available online, but utilises local processing power to provide a high-performance studio with a wealth of innovative features to help you record, slice, arrange and master complete songs.

More...

You can learn more in the following sections and the principles are covered in some detail in the various videos that are linked to from this documentation panel.

Sonic Wizards

Inspiration For Beats, Melodies, Loops And Song Structures
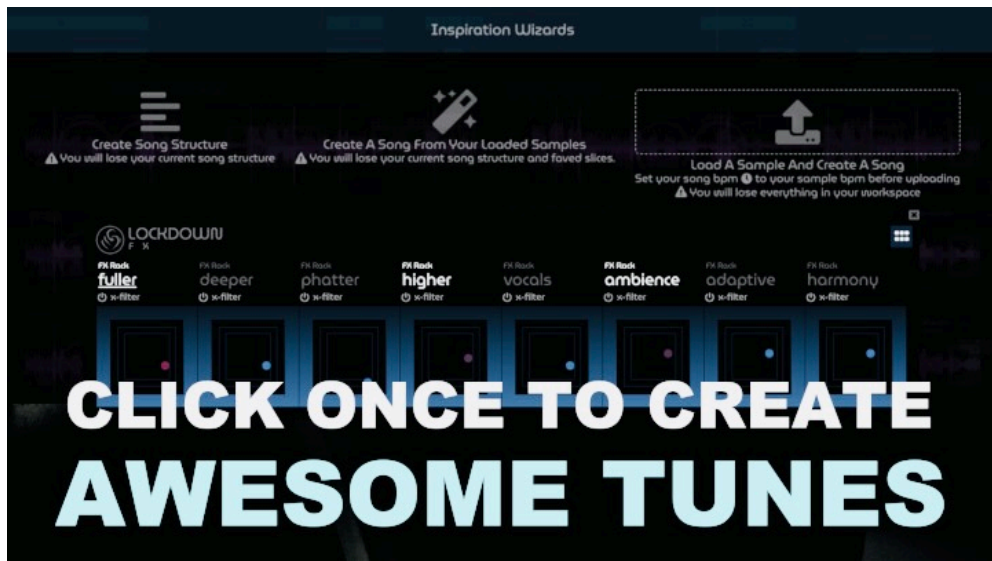
You will find wizard icons dotted across the whole studio, 🪄 including the Drummer, Player, Slicer, Song Structure and the Sample Browser. You can click these for inspiration, enabling you to generate beats, melodies, drum loops, mixdowns, instrument patches and a whole lot more. You can even generate complete song structures, which you can edit and fine-tune. Great fun, but also a very quick route to creating and discovering new sounds. This can be especially useful when you load your samples and generate loops against these samples using the wizards on the Slicer. Since the loops on the Slicer are anchored to the Master Sequencer, the Wizard on the Sequencer is able to generate song structures based on different permutations and layering of your samples.

You will find more details on how to make best use of these inspirational and time-saving wizards in the following sections:

The Song Wizards

Generating Songs
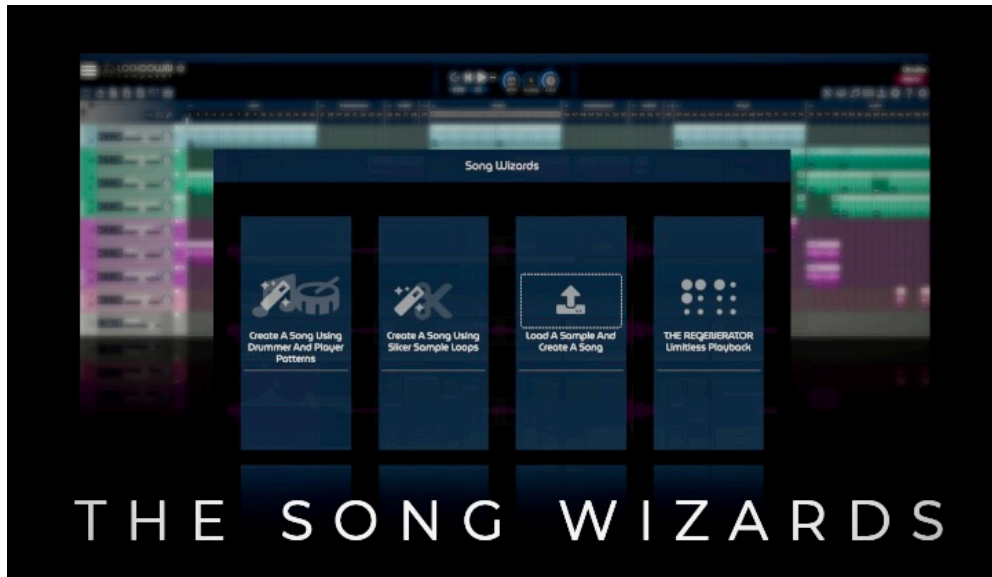
The wizard icon 🪄 at the top of the Master Sequencer contains a range of song generation and playback wizards. You can use these wizards to generate song structures based on audio samples, midi players, including synths and instruments as well as drum loops. This song wizards panel also contains a link to the Regenerator, which you can use to generate limitless variations of your chosen instrument, drum machine and audio loops on the slicer. You can also drag and drop a sample file onto the gen wizards panel to generate a complete song from a single sample. Some of these wizards will clear your song structures and in some cases your whole workspace ... ensure you read the notes against each wizard. The song generation wizards work in two modes, instrument-based and sample-based.

Instrument-based song generation

This wizard uses the selected pattern in the drummer and the pattern in the player and creates variations of these patterns. It then arranges these patterns in the master sequencer, which you can shape, edit and automate further. You will see patterns of type melody, pads, bass and sub bass within the player. The wizard will also create FX racks within each pattern, for filtering and shaping pads and bass patterns for example. These racks are pre-fader and you can add additional FX racks for grouped tracks on the master sequencer after generation.

Sample-based song generation

This wizard has two variations and utilises the slicer to create loops and arrange them onto the master sequencer to create your song. The slicer has four sample categories, namely mixdown, drummer, player and vocals. These categories are mapped to the master sequencer and you'll see the matching colour-coding. The first wizard uses the sample loops already present in each category and arranges the main loop pattern and its sub loops onto the master sequencer to create your song. The second wizard can be used to load a single sample to generate a song structure.

Sample-based generation process

The sample-based song gen process creates artefacts, which you can alter after the gen has completed, just as if you had created them manually. The process loads your sample on the mixdown category (see below for more information on these categories), slices, filters and shapes them before assigning them to the other categories, including drummer, player and vocals. During this process, LOCKDOWN will extend and add variations to your original sample. It may also generate additional artefacts such as noise ramps and also create filtering FX Racks for bass and sub bass slices. LOCKDOWN will calculate the BPM of your sample and the slicer will beat match and create matching loops from sub slices of your original sample. LOCKDOWN will then arrange these sliced loops and sub loops to create your song.

Fine-Tuning Your Song

If you want to try different song structures based on the same loops, you can simply keep re-generating and LOCKDOWN will utilise the same filtered samples and re-slice loops and re-arrange. After generation, you will need to adjust the Mixer and use the FX Racks to filter out undesirable frequency crossovers. The FX Panels have a performance grid mode ⋮⋮⋮, which can be very useful for this task. Also remember, if you want to utilise different samples for each of the categories, you can simply drag and drop them onto the Slicer and the song will adapt automatically. Finally, it's worth remembering that the gen structure and song gen operations create different permutations every time you use them. You can manually adjust the generated structures.

Song Sections And Layers

The song generation wizards will not change the layout of your sections and layers. If you provide additional tracks, the wizards will progressively add additional artefacts to your songs. The master sequencer has four categories of tracks, mixdown, drummer, player and vocals. The slicer can create sample-based patterns within each of these categories and you will see matching sample categories on the slicer, from which you can drag and drop patterns on to the sequencer. The drummer and player can only add patterns to the drummer and player categories of the master sequencer respectively. During instrument-based song generation, the wizards will generate drummer patterns for up to two sequencer tracks, equating to 32 drummer tracks in total. The player will generate patterns within the player category for up to 4 tracks, including melodies, pads, bass and sub bass. For sample-based song generation, the wizards will create patterns for a single track for all categories, except the player. This category can have up to 5 layers, including patterns for melodies, pads, bass, sub bass and noise ramps.

Section Tagging

Unlike most DAWs, the LOCKDOWN timeline understands song structures. The tracks reside within sections and you can create your song structure by adding, removing, copying, pasting and extending or shrinking sections. Each section can be between 1 and 256 bars long. The intro section has to be a minimum of 4 bars and cannot be moved or deleted, however, you can rename it or extend and shrink its size. As you alter the song structure, LOCKDOWN creates its own interpretation of the structure. It uses this dynamic section tagging when it generates songs using the song wizards. The section names at the top are modifiable and you will also see a set of section names on the master channel that are the tags LOCKDOWN creates and these tags can provide a useful guide as to what the song wizards may create. These section tags can change based on the length of sections, the length of the song and the arrangement of the sections. As well as the main song wizards panel, you will notice wizards against each section of your song. You can use these wizards to create your song a section at a time. LOCKDOWN uses its section tags to determine the type of content it needs to create for the selected section.

The Regenerator

The Regenerator is designed to inspire you with ideas.

Limitless Possibilities
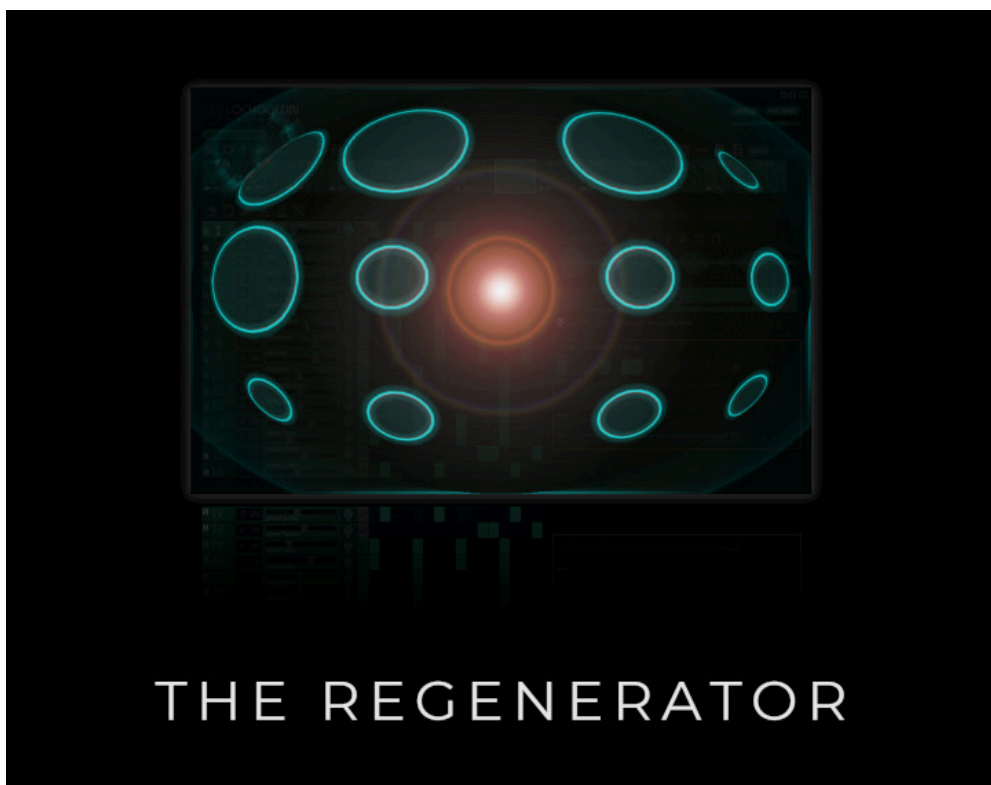
You can start the Regenerator ⠿ within the song wizards panel to play limitless variations of the selected pattern in each of the core audio units, the Drummer, Player and Slicer.

Priming and Interacting with the Regenerator

When you start the Regenerator, it clones the patterns in the Drummer and the Player to preserve the originals. If you make changes to the patterns during playback, the Regenerator will provide the option to keep these changes after you stop playback. The Slicer pattern isn't cloned because the audio is not altered but loops and variations are dynamically created and sequenced behind the scenes. Hence you may not see the slicer actually playing but simply flashing the selected pattern.

FX Racks and X-Filters

As well as variations in the midi and sample audio, the Regenerator also seeks and shapes parameters on any x-filters on any fx racks that are active. It does this for all the units. Hint: Place the x-filter xy knob on the position where it would normally reside since the Regenerator will use this as a reset position after any build sequences. You will not see any animations, but the Regenerator will be altering and shaping these behind the scenes.

Resetting and altering regeneration paths

You can start and stop the Regenerator as required and it should pick up from where you left off. You can also make changes to the midi sequences, drum patterns, etc., as you normally would and the Regenerator will adapt. This includes the selection of new drum kits, instruments, etc., including use of sonic wizards that generate new instruments, drum samples, midi sequences and drum patterns.

Sample Wizards

Melodies, Pads, Bass, Hits and Notes
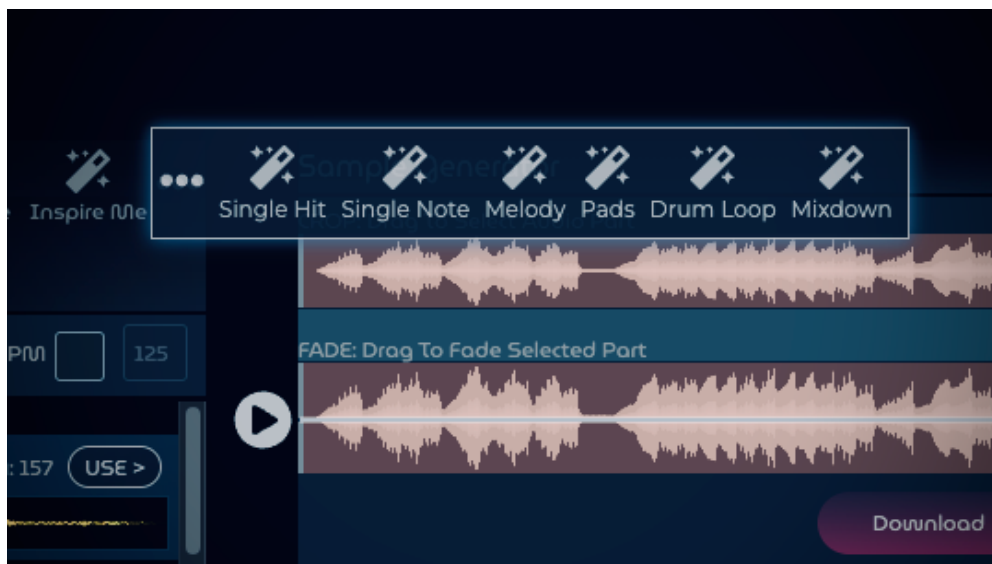
LOCKDOWN provides a wide range of wizards to inspire you with ideas. When you launch the Sample Browser, you have access to the FREESOUND database with over half a million sounds. In addition, you can ask LOCKDOWN to generate infinite permutations of sounds using its range of 32-voice synths and FX library. Samples can range from a single hit to complete mixdowns.

Drum Loops

This wizard creates a complete drum machine and then generates a set of drum patterns to create a sample loop.

Mixdowns

Use this wizard to create a drum loop, which uses the drum loop wizard and then generates a melody using one of the 32-voices synths, and creates a mixdown of the output from both wizards.

Inspiration Wizard

Randomly chooses one of the sample generation wizards to inspire you.

Instrument Patch Wizards

In addition to the sample generators in the sample browser, you will notice a range of patch generators, positioned closer to where you need them.

Synth Patch Generator

When you are using the player to create melodies, you can use the patch generator to generate a synth patch or a sample for the sampler. You can combine this with the pattern generator to instantly hear the effect of changing player patches and note sequences, overlaid onto your song.

Instrument Patch Generator

The instrument patch generator creates a sample using LOCKDOWN's range of 32-voice synths and utilising a range of filtering and shaping racks. Whether you are looking for those low-level basslines, vibrant leads or dark pads, you can keep regenerating until you find that perfect match.

Synth to Sampler Wizard

Synths can be expensive on system resources, especially when they contain a large number of FX units on the FX Racks. When you are happy with a synth patch, you can use this convenient, one-click, wizard to create a sampled instrument, which consumes significantly less resources. A useful tip is to duplicate your synth pattern and transform the copy. Using this approach, you can keep a copy of the original synth patch should you need it in future. Also, don't forget, you can separately save your synth and instrument patches to build your collection. You can use the same wizard to freeze and bounce sampled instruments if you want to collapse the FX Rack for performance gains.

Drum Sample Generator

In the Drummer, you will find a sample generation wizard against each drum sample. This wizard generates a sample, based on the type of drum you are viewing. It uses a range of FX units to filter and shape your drum sounds, with infinite permutations.

FREESOUND Library With Over Half A Million Samples
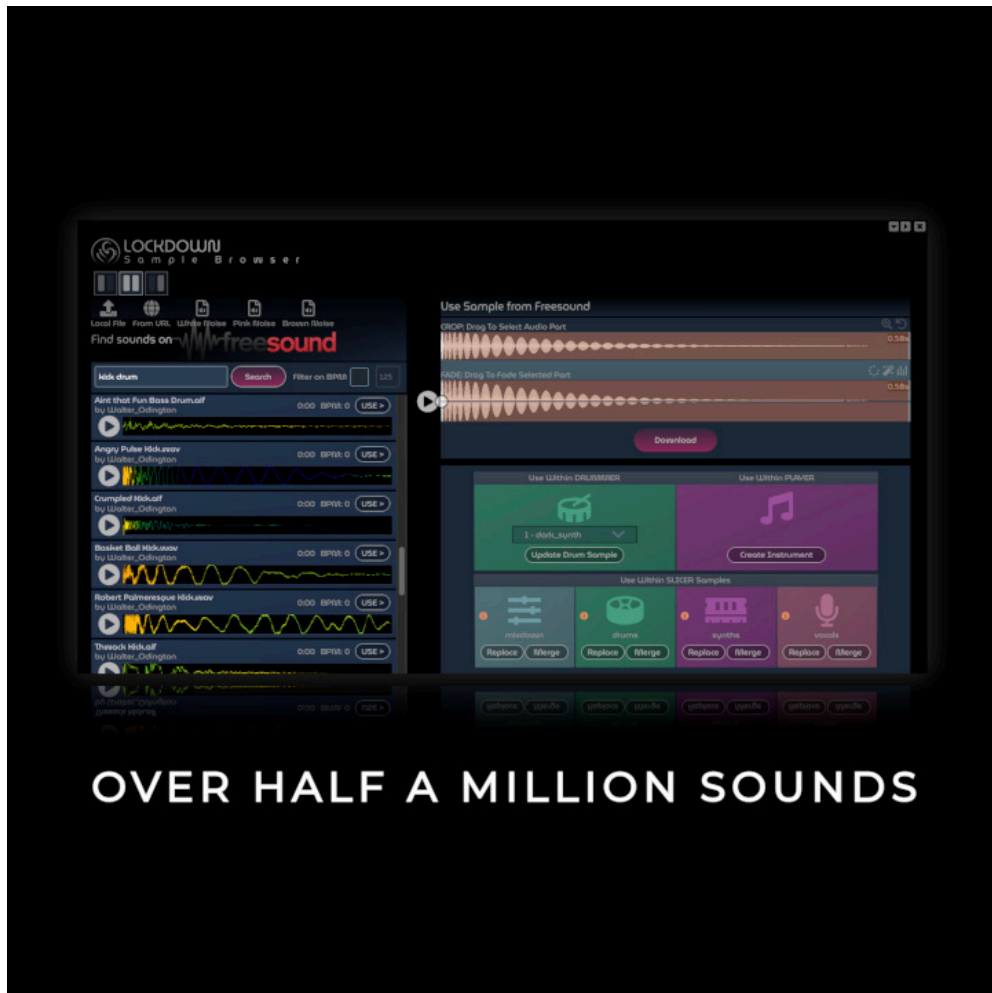
OVER HALF A MILLION SOUNDS

You can simply drag-and-drop your sounds onto the LOCKDOWN window and decide how you wish to utilise these sounds within your compositions. However, LOCKDOWN also integrates with the FREESOUND database, which contains a continuously growing database of over half a million sounds. You can search to discover new sounds and loops for your compositions and utilise these sounds within the Slicer, Drummer and Sampler.

Song Properties And The Master Sequencer Timeline

BPM Swing and Genre Selection

You can change the BPM and swing settings using the ellipsis icon ••• on the main control panel on the song header. You can also choose a genre, which will provide you a typical BPM. You can change the BPM post-selection. During genre selection, LOCKDOWN can extend or shrink the boundaries of all your audio patterns on the Slicer to match the revised BPM. The genre selection is utilised by LOCKDOWN for various activities, including genre-specific drum pattern and sample generations.

Change Song Name

Simply click the song name.

The Song Beat Utility

The song beat utility is located on the main control panel at the top. When activated, you will hear a beat that is true to the BPM of your song. This can be useful when beat-matching and trying to align slices.

The Master Sequencer

The Master Sequencer provides the main visual arrangement area, similar to most DAWs, but it is aware of song structures and provides editable sections along its horizontal timeline. The Mixer is on the left, together with the ability to assign FX Racks to every track of your song. The idea is that you create a song structure on the Sequencer and drag-and-drop loops from other audio units and their playgrounds onto patterns on the Sequencer to create your songs. We will cover the core audio units in more detail later, but they consist of the Slicer, the Drummer, the Player, which can act as a Synth or Sampler, and a Pad-Lock performance unit.

Song Structures

You can create unlimited tracks, only restricted by your machine's resources, but the arrangement area is organised into four categories. These categories are mixdown, drummer, player and vocals ... and are important because they determine what types of tracks they can contain. The categories also provide the sonic wizards with the intelligence to generate ideas for your loops and song structures and can also utilise shared fx racks for sound shaping multiple tracks.

The mixdown and vocals categories can contain audio loops from the Slicer only. The drummer category can contain loops from the Slicer and also patterns from the Drummer playground. Finally, the player category can contain loops from the Slicer and also patterns from the Player playground. The patterns in the Player itself can utilise acoustic and electronic instruments, as well as acting as a Sampler and Synth.

Discovery, Layering And Experimentation

The Master Sequencer and the core audio units are closely integrated and work in harmony to help you experiment, discover and shape new sounds and sequences. The Slicer has four matching categories of audio samples, the same categories as those on the Master Sequencer. Each of these samples can contain any audio fragment, whether external or generated within LOCKDOWN. You can create and append new samples by recording your performances, vocals, or by bouncing drum and player patterns as well as song sections. The Drummer is flexible and sample-based. You can drag-and-drop any audio fragment, including slices from the Slicer as well as notes from the Player onto drum pads to create new drum machines. The Player acts as the hub for your note sequences and can be launched from any pattern on the Slicer or drum pad on the Drummer. This instantly transforms the Player into a Sampler.

The Player can also be launched as a Synth as well as having access to a range of acoustic and electronic instruments. The Drummer, The Player and the Slicer can be used in solo mode to test your ideas within their own playgrounds, but they also overlay the Master Sequencer and play in sync with the other units. You can therefore listen to different, overlayed effects between the audio units and also against the Master Sequencer in the background. The audio units are also aware of the loop on the Master Sequencer and move along the timeline as the loop is dragged to help you test your ideas instantly in different parts of your song.

Starting With A Clean Project

You can clear your song structure and all samples in one-click, using the erase icon ◆ on the left-hand edge of the Master Sequencer or use the new project icon ▮.

Editing The Song Structure

You can move, add, remove and rename sections and tracks. You can alter section lengths and also erase, copy and paste sections. The first section is fixed. It can be renamed and altered in size, but it will remain at a minimum of 4 bars. You can add and remove song patterns, using the Sequencer bars presented along each of your tracks. You will see more ••• symbols against sections, tracks and song patterns. You can use right-click menus on desktops, but also utilise these ••• icons to access the same functionality, which can be useful on touch devices. You will see the option to change how your tracks are connected to the various FX Racks. You can learn more about this in later sections on FX Racks. You can also select the type of audio unit you want to use for each track. As you start to move tracks or patterns, you will see guidelines, highlighting suitable locations for your tracks and patterns that adhere to the track categorisations described earlier.

Looping and Moving Around The Sequencer

Sequencer Bars (Measures)

The Sequencer display is located at the top of the song structure. These bar numbers contain indicators that show note positions of the active Player pattern and also the bars that are covered by the Drummer loop if the Drummer is active.

Loop Sections

You can select a loop by dragging over the bar numbers and toggle the loop by clicking on the loop range. When dragging the loop, the overlayed Player, Sequencer and Drummer patterns also move to enable you to layer and hear how they sound in different parts of your song. More on this in later sections that are dedicated to the different audio units. The different coloured bars, superimposed on the loop selector indicate which of the core audio units are active and overlaid on the sequencer.

Playheads

The row below the bar numbers represent the playhead positions and allow you to move around your song by clicking on different parts. These playheads may be coloured differently to indicate potential performance bottleneck. You can learn more about this in the performance tuning section, towards the end of the documentation.

The Main Toolbar

Toolbar Items

The main toolbar is located on the top left hand side of LOCKDOWN studio. You can use this toolbar to toggle all solos and mutes on the Mixer. You can also use this toolbar to access song templates, create, save and load your projects and bounce sections of your song. You can also use this toolbar to zoom your song display horizontally and vertically. You can also collapse and expand the mixer using one of the options on this toolbar.

The Creative Toolbar

The Creative Toolbar is located on the top right hand side of the LOCKDOWN studio. This toolbar provides useful links, which you can use to launch audio units that let you create new samples, drum patterns and note sequences.

Audio Units

You can launch the Player (including the integrated Sampler) 🎵, Drummer 🥁, Synth ⌨ and the Slicer ✂ units from this toolbar.

Sample Library

You can use the media icon 🎼, to search the FREESOUND sample library. You can also load samples from your local drive or from cloud drives via URLs. You can also use the range of sample generation wizards to create basslines, pads, melodies, drum loops and noise samples for use in your compositions.

Recording Vocals and Performances

You can access a range of recorders, which you can use to record vocals and other elements within LOCKDOWN. The master out recorder can be used to record every sound you make within the LOCKDOWN studio. You also have additional recorders that will only record the different audio units as you perform.

The FX Racks Panel

Accessing FX Racks

You can access the FX Racks using the column of blocks on the right-hand side of the Master Mixer. The Mixer is located on the left-hand side of the Studio. On the pop-up menus against each track, you will see a rack icon ▤ that enables you to change the mappings between your tracks and fx racks. You have access to two shared racks per category of samples, similar to buses. With four sample categories, you have a total of 8 shared racks. The list of racks will also show a SOLO rack option. This rack is not shared and is available as a dedicated rack for each track, if required. In addition, you have a separate Master FX Rack, which is permanently available on the master track.

Workflow - Mixer and FX Racks Connectivity

Signal Flow

LOCKDOWN provides a powerful but easy to understand signal flow. It is designed to reduce the potential for hidden and convoluted workflows. Any parallel aspects are handled automatically wherever possible and provides a powerful range of pre-fader and post-fader fx-rack configurations, with minimal setup requirements.

Mixer and FX Racks Connectivity

Audio is produced by one of the three core units, the Drummer, Player and the Slicer. Audio patterns in each of these units have their own FX Racks. The Drummer also has its own 16-Channel Mixer. The outputs from each of these units enter the Mixer in the Master Sequencer. The FX Racks in each of these units can therefore be considered as PRE-FADER from the perspective of the Mixer in the Master Sequencer. The outputs from the mixer channels then enter another set of FX Racks. These racks can be shared by different mixer channels or created as solo racks, dedicated to each channel. These FX Racks can be considered as POST-FADER. The outputs from each of these racks enter the master mixer channel, which then flow through the master FX Rack. The master rack is also post-fader.

Volumes and Metering

The pre-fader fx racks within the individual audio units have no explicit volume controls. Any volume levelling needs to be controlled via an fx unit such as a gain fx if required. The faders on the master mixer control the outputs from the pre-fader racks within the individual unit patterns. The fader on the master channel controls the collective outputs from all the post-fader fx racks (except the master rack) on the master sequencer and the master volume fader controls the input volume to the master fx rack.

FX Rack Meters

Because the post-fader racks on the master sequencer can alter the signal after it leaves the mixer, there is an additional meter at the end of each rack by default. LOCKDOWN therefore displays the input volumes to the mixer within the integrated fader meters and it also detects and displays volume levels at the end of each rack.

Clipping

Any clipping on the master mixer highlights issues with the input signal, post the pre-fader fx-racks. The fx racks also produce post-fader clipping information. This shows adverse levels as a result of the fx units being applied within post-fader fx racks.

Overlay Unit Volume Faders

Individual units within LOCKDOWN, such as the Slicer, Drummer and Player, can dynamically overlay patterns across selected areas of your song structure. This allows you to easily test layering of new sequences within your composition. The volume levels within the master sequencer and the individual units may be different when using this dynamic layering approach. A separate overlay volume fader is available within each unit to help you harmonise the unit volume with that of the master sequencer. These faders are transient and do not fundamentally alter the output of any unit patterns.

The Drum Mixer

The Drummer has a 16-Channel mixer of its own, which also has a collection of shared and solo fx racks for convenient grouping of drum sounds. The fx racks are post-fader within the context of the drummer and act as pre-fader once the drummer output enters the mixer within the master sequencer. The Slicer and Player essentially act as a single instrument per pattern, but the Drummer patterns essentially have 16 instruments, one per-channel. As a result, the Mixer and FX Rack settings are applied across all drummer patterns by default. If you want to create pattern-specific mixer and fx rack settings for drummer patterns, similar to the Player and Slicer, you can use the orange isolation mode button.

Parallel Compression and Parallel EQ

As we mentioned earlier, LOCKDOWN is designed to reduce complex signal paths and provide an easy to understand workflow. The signal path appears logically linear with minimal deviations such as those used to encompass sends and returns from separate inserts and buses. With its pre-configured range of shared racks, LOCKDOWN reduces the setup requirements and simplifies the workflow. Certain fx units that require parallel signals will auto-split and merge signals for you. For example, the Compressor, the Equaliser and a whole range of additional dynamic and filtering units have a mix fader at the end that combines the original dry signal with the wet signal.

The Audio Unit Type Panel

Accessing Audio Units

The audio unit links are on the left hand side of the Mixer channels. Depending on the type of audio unit used by each track, clicks will launch the Slicer, the Drummer or the Player.

Core Audio Units

The Drummer

The Drummer is a 16 track, configurable, sample-based drum machine. The Drummer is integrated with the Master Sequencer.

The Dream Machine

THE DREAM MACHINE

The Drummer is one of the core units of LOCKDOWN and it works in a pattern-based manner, similar to the rest of the core units. You can create a range of drum patterns. Each pattern can extend for up to 16 bars and will loop in full or in part, depending on the length of the song pattern that uses it. We call it the dream machine because you can configure it to sound exactly how you want, including the ability to create infinite sample permutations and the creation of drum machines and drum patterns using a single click.

Drum Machine Generators

You can use one of the cool pre-defined drum machines or create your own. As well as the ability to load and generate a sample for each drum, the Drummer provides two sonic wizards for the creation of complete drum machines. One of the wizards 🧙, generates samples for each of the drums and adjusts the faders to get you started. You can further shape and fine-tune using the mixer, fx racks as well as the sample loaders and generators against each drum. The second wizard 🪄 does the same thing but preserves the four on the floor drums.

Learn How LOCKDOWN Weaves Its Magic

Whenever LOCKDOWN generates samples, it attempts to preserve the trail of generation steps. It will typically generate samples using its collection of 32-voice synths and apply filtering and sound shaping FX Racks to achieve the desired impact. What it generates will depend on the context of the wizard. After generation, you may see a cogs icon ⚙️. Clicking this will reveal the synth that was used, together with the settings. You may also see a summary of the FX Rack that was used. If relevant, you may see an icon to load the whole chain on to the Player. For certain drum samples, LOCKDOWN may utilise stock samples and shape them accordingly.

The Pattern Variations Wizard

Next to the drum machine generators, you should also find a pattern variations generator. Using this wizard, you can select a pattern of your choice and LOCKDOWN will generate a range of useful variations of the selected pattern.

Shaping Drum Sounds Using The Player

You have pitch and strength controls against each drum step. You can also assign samples for any drum from the Pad-Lock and Player units. Using the Player ♫, you can pitch and filter the drum sound. Once you are happy with the sound, you can drag and drop the relevant keyboard key onto the drum pad (make sure the drag lock against the keyboard on the Player is off), or use the capture icon 📷 against the drum toolbar, to change the drum sample.

Loading Drum Samples

You can drag and drop pretty much any sound on to the drum sampler. You can also use the upload icon to access the FREESOUND library and also drag and drop audio slices from the the Pad-Lock or any faved pattern on the Slicer. You can also drag and drop notes from the Player onto drum pads. You also have a link to access stock drum samples.

Copying Drums

By activating the copy button against any drum setting, you can then click any other drum to grab its sample on to the current drum.

Shaping And Resampling Drums

You can use complete FX Racks to shape drum sounds. If you want to be more efficient or simply want to freeze a sound that you like, you can use the resample icon 🖊 to create a replacement of the drum sample utilising the FX Rack. Unless you are on a share rack, your rack will be disabled post resampling. Hint: If you are using a shared rack, be careful to revert the rack settings after use since you will be impacting other drums. An alternative approach is to assign a solo rack to the drum that you want to resample, complete the resampling and then re-link to the shared rack

Saving And Loading Drum Sounds

Using the Drummer toolbar icons, you can save and load your drum sounds from your local drive. You can also select different drum machines by clicking on the drum patch name. Please note that these options only deal with the actual sounds, including the volume and pan settings and not the drum patterns. Your active pattern and any other patterns you may have captured are saved as part of your project.

Bouncing Drum Patterns

You can bounce 🎁 and sequence these patterns in any order onto the Master Sequencer by using the Slicer.

Resampling Layered Drums

You will find a convenient resampling option on the main Drummer toolbar that enables you to select multiple drums and bounce their combined layered output. You can then assign the composite sound to the drum of your choice or utilise it elsewhere. Remember, you don't have to create any steps on the drum sequencer. The resampling process will handle this for you, before creating the layered sample.

The Mixer And FX Racks

The Drummer has a 16 channel mixer and 4 shared FX Racks, to help you mixdown and shape your drums. In addition to the 4 shared racks, you can also create solo racks for each individual drum and each rack has access to the whole collection of FX Units.

Master Sequencer Integration

Like other core units, the Drummer's sequencer adapts and moves with the timeline of the master sequencer. You have the overlay controls and volume slider at the top, which you can use to listen to the Drummer in isolation or overlaid over your main song composition.

Isolated Patterns

The Mixer and FX Rack Settings on the Drummer apply to all patterns, unless a pattern is designated as isolated using the orange mixer icon ⫴. In this case, the Mixer and FX Rack Settings can be changed for the isolated pattern only. The additional isolated parameters are highlighted in orange for convenience. You can remove the isolation settings to let patterns revert to the general settings for the Drummer as a whole. If you like the settings on a particular isolated pattern, you can also copy these settings to the general settings on the Drummer, for inheritance by all other patterns.

Synchronising Volumes And Other Settings

The master volume slider on the Drummer only affects the Drummer and will not alter patterns allocated to the Master Sequencer. Changes to volumes on individual drums will be reflected in the Master Sequencer as will any changes to the sample length. This is to reflect the overall mix balance for drum patterns.

Integration With The Player And The Slicer

The Drummer also integrates with the Player and the Slicer and all units will follow the Master Sequencer loop setting.

The Player, Including Integrated Sampler

The Player adapts, depending on its usage context. You can use the Player in different modes. You can select instruments and use it in instrument mode. You can also select from a range of synths and the player will transform into a synth. Also,When you drag and drop any samples onto the LOCKDOWN studio, including samples you choose from Freesound, you can edit and fine-tune these samples in the Sample Viewer and choose to arm the Sampler directly from the Sample Viewer. You can start the Player from anywhere, where you see the musical note symbol ♬.

Creating Patterns And Note Sequences

The Player colour scheme will adapt, depending on the selected instrument, sample or synth. The patterns will adopt a similar colour scheme, fuscia for synths, blue for instruments and samples. Each pattern also includes a watermark, indicating whether is contains settings for a synth, native sample or a sampled instrument. Clicking any of the patterns will transform the Player to its faved settings. You can edit and update the note sequences and the tuning and fx rack settings separately on the Player patterns. You can use these patterns in your song structure and changes to these patterns will be reflected in your song.

Setting The Seed Notes

When you start the Player from a sample or an instrument, the Player automatically enters sampler mode. The Sampler is polyphonic and will seamlessly create an instrument based on your original sound source. You can change the key seed note using the key icon on the left.

Note Repeat

You will find a convenient note repeat item ⟳ on the toolbar. This can be useful when you are trying to shape the sound while it repeats.

Recording And Clearing Notes

You will see a record button on the main player toolbar. This is in addition to the record button on the Master Sequencer. The record button on the Player only records the notes you play whereas the record button on the Master Sequencer provides a range of stream recorders for recording different elements of LOCKDOWN's output. You can clear the notes using the clear notes item on the toolbar.

Recording Clearing FX Rack Automations

Each pattern in the player contains a complete fx rack. These racks are pre-fader, from the context of the master sequencer. Like all racks in LOCKDOWN, you have a range of fx units to choose from and can record and edit automations for recordable fx params.

Capturing Note Patterns

You can capture your note sequences and various settings into patterns using the fave icon ♥. Each pattern can capture up to 16 bars of notes.

Master Sequencer Integration

The player patterns automatically move with the loop on the Master Sequencer. The Sequencer loop will auto adjust to match the number of bars on the pattern. If you need the loop size on the Master Sequencer to be manually set then this can still be done. You can also solo the Player, Drummer and Slicer using the 'Song' button on the toolbar, which essentially mutes the Master Sequencer. This feature is integrated with the Master Sequencer and the 'Song' button will change in tandem with the muting and unmuting of the master channel on the Master Sequencer.

Integration With The Drummer And The Slicer

The Drummer also integrates with the Player and the Slicer and all units will follow the Master Sequencer loop setting.

Bouncing Patterns

You can bounce 🎁 your active pattern and merge or replace any of your master samples for use by the Slicer.

Glide Mode And Creating Samples For The Drummer

You can toggle glide mode using the lock icon 🔒. When glide mode is on (default), you can drag across keys. When the mode is turned off, the same drag operation will enable you to drag keys onto drum pads for sampling and use within the Drummer.

Overlay Volume

You will notice a volume slider at the top of the player. You can use this to obtain the correct mix when you are overlaying and testing player patterns during playback. This is not a master volume control. Similar to the other units, this volume control is used to match the volume of the master sequencer when you are overlaying other patterns on the song structure with the pattern that's playing on the player. To alter the volume of any actual player pattern, use a gain or other suitable fx unit on the pre-fader player racks.

Detailed Notes Editor

The hold slider position determines the lengths of notes when they are recorded, but notes can be manually adjusted in the detailed Notes Editor. You can toggle the notes editor by clicking icon ✎. Within the Notes Editor, you can edit individual notes and their velocities. In adjustment mode ↔ to adjust the velocities of individual notes. In edit mode ✎, you can also copy and paste notes and player automation points a bar at a time. You can also copy notes from one pattern and paste them on to different patterns.

Saving And Loading Sound Patches

Using the save and load icons on the Player toolbar, you can save and load patches locally. Please note that these options only deal with the actual sounds and not the patterns on the Player. Your active pattern and any other patterns you may have captured on the Player are saved as part of your project.

Synths

The Synths work in conjunction with the Player. You can launch the Player in synth mode using the synth icon ⌨ on the creative toolbar, located on the top right hand side of the Sequencer.

Player Integration

32-VOICE SYNTH COLLECTION

You can choose from a growing range of synths and patches, including AM, FM, MEMBRANE, METAL, PLUCK and BASE synths.

Voices

Where synths are polyphonic, voices will be auto-allocated, with up to 32 voices as required.

Creating Sampled Instruments from Synths

Synths can be quite processor intensive. If you need more headroom for your compositions, you can use the 'synth to sampled instrument' icon 🖊 to create a sampled version of your synth. You can also do this for sampled instruments if you want to freeze and collapse the FX Racks and create a new instrument for performance gains.

The Slicer

The Slicer is a key part of LOCKDOWN and provides access to the master samples that are sliced and arranged to create a song. You can launch the Slicer by clicking the sample categories to the left of the mixer or by clicking any audio pattern on the song structure. There is also a direct link on the top level creative toolbar ✂. The Slicer is mapped to the tempo of your song and the bar widths on the Slicer will change if you change the BPM of your song.

Sample Categories

There are four sample categories, mixdown, drummer, player and vocals. You can replace these samples or append to them as required, depending on your composition. You will see these categories colour-coded on the Master Sequencer for convenience.

Slicing Samples

You create slices by sliding the audio waveform. As you drag the wave, the Slicer is creating up to 64 slices in realtime, derived from the length of your slicer loop. The slicer loop size can be 1, 2, 4, 8 or 16 bars in length.

Patterns and Sub Loops

The dark coloured (numbered) loops are sub loops and will change depending on the location of the Slicer on the waveform. Loop slice 1 represents the selected loop and can be 1 to 256 bars in length. All the other numbered loops are sub-loops of the top-level loop 1. You create your song by loading loops on to your song structure. You can do this by using the link icon on each loop or by dragging and dropping slices on to your song structure. If you want to preserve the positions of your sub loops, simply fave ♥ them. This creates a pattern, containing your faved loop information, which you can also load onto your song structure.

The Song Pattern

Each pattern has a set of sub-loops, which are automatically created as you move the waveform. One of the patterns can be designated as a song pattern 🗣, which means all numbered sub loops on the song structure (for this sample category) will be linked to the sub loops of the designated song pattern. You may also note that the song pattern has a link icon against each sub loop, providing the option to link these loops to the song structure.

Auto-Stretching And Beat Matching

Each sample category can contain any fragment of audio. You can use the playback speed slider on the slicer control panel at the top to audibly and visually map the waveform to the loop selector, which is mapped to your song's tempo. The key difference here, compared to other DAWs you may be familiar with, is that the beat grid on the Slicer is mapped to the Song's tempo and cannot be manually altered. The idea is that you adjust your samples to fit within this beat grid. You can do this by using automatic beat detection (see below) and adjustments to the playback speed and then use the FX Rack within the Slicer or the FX Racks within the master sequencer to adjust pitch correspondingly. Once you have a loop that you like, you can fave it to create a pattern that capture the loop settings, including the playback speed.

Pitch Shifting

You can pitch shift the samples by using the the pitch shifter fx unit on fx racks. Each pattern can have its own fx rack. These racks are pre-fader, applied before the mixer and fx racks on the master sequencer.

Cropping, Shaping And Resampling

As well as the pitch shifter, you have access to the full range of FX units for sound shaping, as well as a range of cropping and resampling options, which you can use on any selected fragment, in-place or appended to the the end of your sample.

Slices As Loop Patterns

LOCKDOWN works with patterns, which you can drag and drop onto your song structure. Due to the auto-stretching, pitch-shifting and resampling capabilities, each pattern can be viewed as a core entity in its own right. Essentially, you can create patterns of interest from a random set of samples loaded into any sample category.

Invalid Loops

When you change your song's BPM, it will most likely invalidate your faved patterns against affected samples. Any patterns that are invalid, either fall outside of your sample (dimmed) or do not match your beat grid (red) indicate that you either need to re-slice or edit the patterns to create new endpoints for your patterns. These patterns will still play if they are used in your song structure, but will not loop smoothly or be silent if they fall outside of your sample range.

Auto-Stretching And Fixing Slices

Whenever you have slices that do not fit your song's tempo, you will notice a warning triangle against relevant sample(s) and also on your song's control panel. You can click this triangle to auto-stretch all your samples and slices to match your song's master bpm. You can also fix individual slices using the wrench icon on each invalid slice.

Automatic Beat Detection

Whenever you load or change samples, LOCKDOWN analyses your audio to determine its likely bpm. You can manually adjust the speed of each sample to match that of your song. You can also use the heartbeat icons 💗 to determine the likely bpm of your selected loop or the whole sample and auto-stretch accordingly. Therefore, the longer the loop, the more accurate the beat detection and auto stretching is likely to be. You can therefore adjust the speed of different parts of your sample and capture these settings in patterns, enabling you to play the same fragment at different speeds and pitches by using the fx rack.

Pattern Transitions

You can use the sync icon 🔄 on the Slicer toolbar to check how different slices transition from one to another. For longer slices, you can click the overlaid sequencer playheads on the waveform directly to move the playback closer to transition points for the next armed slice. There is a very useful section on beat matching and the Slicer in the video under the 'More Videos' section.

Trimming Samples

You will find useful trimming and extension options on the Slicer toolbar. The crop 🔄 and cut ✂ options enable you to crop to selection or cut sections out of your samples respectively. You can also use the extension options ⬅➡ to add empty space to the beginning and end of your samples. This can be useful when you need to position the looper to create longer slices towards the beginning or end of your samples.

Deep Cuts And Stuttering

All patters are looped. You can play single-shots by activating the single shot icon on the top toolbar within the Slicer. When patterns are dropped on to the master sequencer, each pattern will play for a minimum of one bar. You can use the Deep Cuts tab on the Slicer and drag and drop any of the sub slices, including the 1/32 sub-slices, to create cool stuttered and glitchy effects. This deep cuts grid is applicable across all samples and can utilise your faved patterns as well as the sub loops. If a sample does not have a named pattern, it will be excluded from the sequence. Each slice in the sequence will also be auto-faded and smoothed to prevent unwanted artefacts. To utilise a deep cuts sequence in your compositions, simply fave it to create a faved pattern and then drag and drop it onto your song structure, like any other pattern.

Integration With The Drummer And Player

You can bounce individual faved slices and also drag and drop slices onto drum pads on the Drummer. You can also launch the Player in sampler mode using any faved pattern as the seed for the Sampler 🎵.

Overlay Volume

The overlay volume slider on the Slicer only affects the Slicer during playback and sampling. You can use the overlay volume to obtain the correct mix when you are overlaying and testing Slicer loops during playback, but the volumes of any slices used on the Master Sequencer will only be affected by the Master Mixer on the Sequencer.

All Your Faved Slices In One Playable Grid
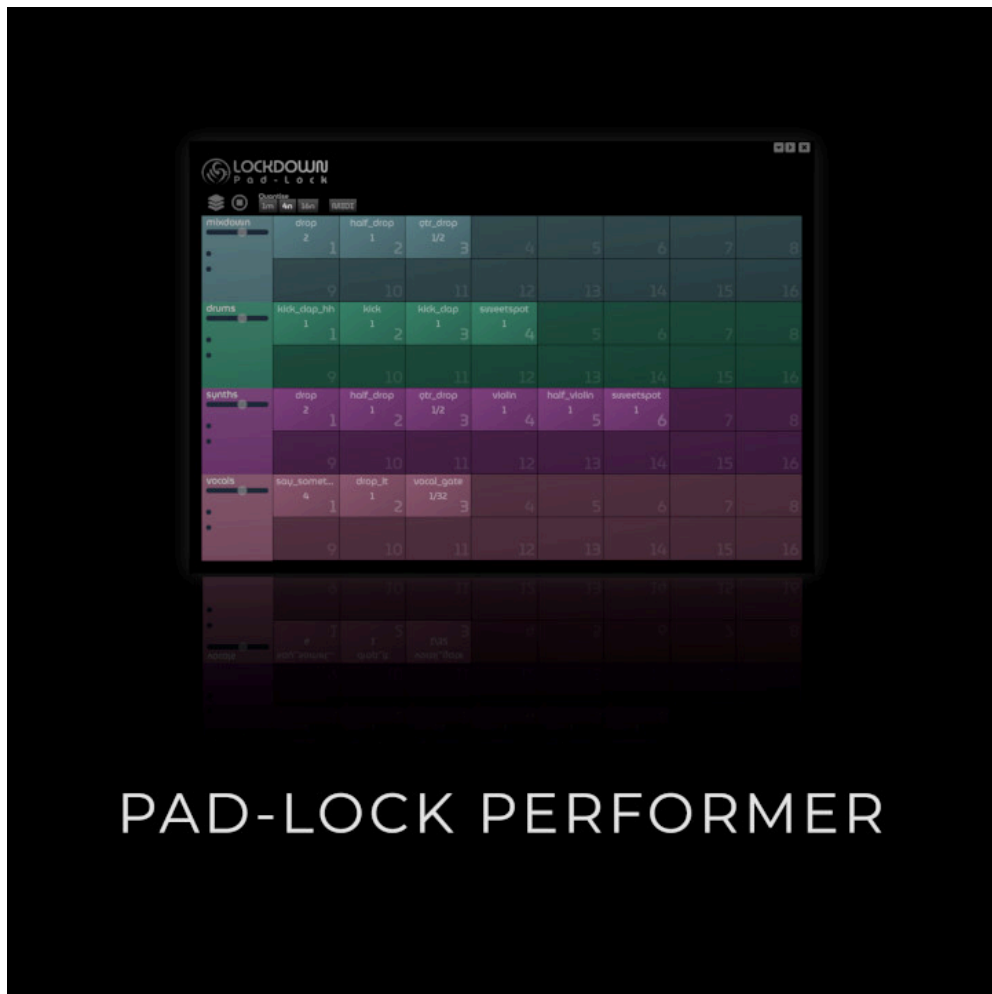
The Pad-Lock unit conveniently groups all your faved slices, up to 64 in total across your four sample categories. These are automatically maintained as you make changes in the Slicer. You can perform and record using these pads and the pads can also be used as source samples for populating your drum pads on the Drummer. You can start the Pad-Lock by clicking the launch icon ⊞ on the slicer.

Quantisation

You can select different quantisation options to control when your slices are triggered. Different quantisation options can suit different categories of your slices.

LOCKDOWN has a range of MIDI capabilities that will enable you to easily train and perform on most of the audio units.

Browser Support

MIDI is only supported on Google Chrome and Microsoft Edge at present.

Connectivity And Settings

You can locate the MIDI Settings tab within the Settings Panel, which you can launch using the Cog icon on the Creator Toolbar on the top right hand side of the Studio. This will indicate the connectivity status of your MIDI devices. You can use the 'Force Refresh' button in case a device ever shows as being connected, but you receive no signal.

Training And Performance Modes

Within the MIDI Settings panel you will see a graduation cap icon that can be used to enter MIDI Learn mode. When you click this button all trainable items within the various audio units will light up. You can press these or select them from the list on the MIDI Settings panel. You can then interactively press MIDI controller keys and snapshot the various status codes that are transmitted and displayed. Whilst you are in training mode, none of the units will actually respond to anything via MIDI until you have exited training mode.

Clearing, Saving And Loading Mappings

You can use the MIDI Settings panel to clear all mappings, save mappings and load mappings as separate files. Any mappings will also be saved with your projects and reloaded, and these mappings will replace any existing mappings. If you load different templates or projects without any mappings then your current mappings will be preserved.

Performing Using MIDI

When you have exited training mode and have midi devices connected, you will notice individual MIDI buttons on audio units that support MIDI. Nothing will happen unless you activate MIDI for individual units. Even when active, a unit will only process MIDI signals when it is visible. You can therefore leave MIDI activated for units and hide and show the windows as a way to prevent signals being processed. This also enables you to play parts of different audio units by opening multiple windows and performing using MIDI. You can open and activate the Drummer and Pad-Lock at the same time for example.

Mappings - General Concepts

You will find a range of default mappings on MIDI keyboards, which should enable you to perform on most units without necessarily having to create mappings. We have tried to provide a default mapping scheme that should enable you to perform on parts of multiple units at the same time. We will assume the following notations: 8 octaves between key codes 12 and 108 and we will assume C4 represents key code 60. We appreciate this may differ in various scenarios, but it's simply for illustration and reference purposes and should not affect your mapping possibilities. Based on this assumed notation, we therefore have 8 octaves (C0[key 12] to C7[key 96]). As a further point of reference, key 36 will be C2 in this notation.

Player Mappings

The Player requires little or no mappings. All keys from typical MIDI keyboards will be mapped automatically. You can map the Shaper X-Y Panel individually to suitable MIDI panels to shape your note patterns during playback.

Computer Keyboard Mappings

To activate your computer keyboard as input, toggle the keyboard icon within the Settings | MIDI panel. The keys are mapped to two octaves at a time, C-C#-D-D#-E-F-F#-G-G#-A-A#-B are mapped to Q-2-W-3-E-R-5-T-6-Y-7-U for the high octave and Z-S-X-D-C-V-G-B-H-N-J-M for the low octave. You can also navigate octaves 0 to 7. Increase: +, chevron-right, chevron-up, Decrease: -, chevron-left, chevron-down

Drummer Mappings

The Drummer is split into 2 banks of 8 pads, which you can map to MIDI devices that have banks of pads. If you have a device with 8 pads, you can simply map these to the first 8 pads and toggle the 'BANK2' button to switch between the first bank of 8 pads and the second bank of 8 pads. You can also map all 16 volume controls individually or in 2 banks of 8, similar to the pad mappings.

Drummer - Default Mappings

You don't have to perform any mappings to use the Drummer via MIDI. We have some useful mappings for the drum pads. Using the notation discussed earlier under 'General Concepts', the Drummer pads are mapped to octaves 3 and 4 (keys 36 to 59). The first bank of 8 pads is mapped to the first 7 major keys and 1 minor key. The minor key just precedes the final major key. The pattern therefore is: 36, 38, 40, 41, 43, 45, 47, 46. The minor key 46 therefore acts as the final pad in the first bank of 8. The second bank of 8 pads (9-16) are mapped using the same pattern, but within octave 4. The key codes will therefore be 48, 50, 52, 53, 55, 57, 59, 58. This arrangement enables you to play the Drummer using the first 14 major keys and 2 minor keys, starting from key 36.

Computer Keyboard Mappings

The Drummer can also be controlled via computer keyboard inputs. To activate your computer keyboard as input, toggle the keyboard icon within the Settings | MIDI panel. The key mappings for pads 1-8 are Z-X-C-V-B-N-M-J and pads 9-16 are Q-W-E-R-T-Y-U-7

Pad-Lock Mappings

The Pad-Lock can consist of up to 64 pads, split into 4 categories, with 2 banks of 8 pads in each category. We have provided some convenience methods to help you get started very quickly. For example, if you have a device with 8 pads, you can simply map these to the first 8 pads and select any bank from the 8 available banks as the starting point. Simply click on one of the lights on the left and your mappings for the first 8 pads will start from that point. If you are lucky enough to have 16 pads or 64 pads, you do not necessarily have to use the banking facility. You also have the option to map the 4 volume controls, one for each sample category.

Pad-Lock - Default Mappings

Similar to the Drummer, you don't have to perform any mappings to use the Pad-Lock via MIDI. There are a lot more pads available, but the concepts are the same as those discussed under the sections for the Drummer. Using the notation discussed earlier under 'General Concepts', the Pad-Lock pads are mapped between octaves 0 and 7 (keys 12 to 96). The mapping pattern for each bank of 8 follows the same pattern as described under the section on the Drummer. You can therefore move up and down by a couple of octaves to place yourself at the beginning of each sample category.

Computer Keyboard Mappings

The Pad-Lock can also be controlled via computer keyboard inputs. To activate your computer keyboard as input, toggle the keyboard icon within the Settings | MIDI panel. The key mappings for pads 1-8 are Z-X-C-V-B-N-M-, and pads 9-16 are Q-W-E-R-T-Y-U-7. These mappings are the same as those for the Drummer. You can navigate the different banks of pads using the octaves navigator. Octave navigation works in the same way as for the Player, you can navigate octaves 0 to 7. Increase: +, chevron-right, chevron-up, Decrease: -, chevron-left, chevron-down

Using The Drummer And Pad-Lock Together

You will have noticed that the Drummer and Pad-Lock overlap in octaves 3 and 4. You can of course selectively map the items of interest to you, but using the default settings, you can perform on the Drummer and still access 6 banks of 8 pads on the Pad-Lock. The most interesting of these will be in banks 5, 6, 7 and 8, namely the Player and Vocals, which will often pleasantly overlay the Drummer. Whether you are playing the Drummer and performing via MIDI on the Drummer and Pad-Lock or playing a loop on the Master Sequencer and doing the same, you should find plenty of possibilities with the default mappings.

FX Rack Mappings

You have access to 8 shared FX Racks (in addition to the master rack). You can also access a SOLO rack per track, providing unlimited capabilities. In each rack, you have an X-Filter panel. These panels are designed for rapid sound shaping and can double up as great performance tools. They are available for mapping and you only have to map one panel. Any connected X-Y panel MIDI device will control the active rack.

FX Racks - Default Mappings

Like other MIDI-enabled units, the FX-Racks have some default settings. You can use keys to launch each of the 8 shared performance-enabled racks. You can navigate through the racks by using keys 37 and 39 in octave 3 and use the X-Filter panels.

FX Racks And Sidechaining

Connectivity From Mixer Channels

Please see earlier section on "Workflow - Mixer and FX Racks Connectivity" within "LOCKDOWN Overview".

Pre-Fader And Post-Fader Racks

The slicer, drummer and player each have their own collection of fx racks per pattern. These pre-fader racks are applied before the audio from these patterns reach the master mixer and post-fader fx racks on the master sequencer. The detail in the rest of this section is created in reference to the master sequencer fx racks, but most of the content applies to fx racks in general. The main exception being the sidechain fx unit, which can only be utilised on the master sequencer racks.

Pre-Configured Solo and Shared Racks

The outputs from each Mixer Channel pass through an FX Rack. This means that your signal, after it leaves the mixer channel, can be modified by the fx rack.

Clipping

Each fx rack has a clip light on the final meter. In addition, each mixer channel also has a clip light to enable you to determine the point at which your signal is surpassing 0db. This light will only show in red in the event of clipping.

Fave Settings

You can use the fave and reset icons on the fx rack toolbars to save settings for all fx units, including their active or inactive states. This can be a convenient way to A-B your signal with and without the fx rack present.

The Sidechain FX Unit

Overview

The sidechain unit is very important in electronic music and there are a few points you should be aware of in order to get the best out of this unit. The sidechain unit achieves its effect by taking its input signal as the raw output from a mixer channel or another fx rack (which may be a composite of other channels). When a mixer channel is selected as the input trigger, a direct connection is established between the output of that channel and the fx unit.

Automation And Performance Modes

The FX Racks provide a range of automation and performance features.

Performance Rack Automations

See later section on **Automation, Recording And Performing** for more details.

The Master FX Rack

Connectivity From Other FX Racks

Please see earlier section on "Workflow - Mixer and FX Racks Connectivity" within "LOCKDOWN Overview". The outputs from all FX Racks on the master sequencer are channelled into the master mixer channel, which then connects to the Master FX Rack. This means that your signal, after it leaves the mixer, can be modified by the master rack.

Clipping

Like other fx racks, the master fx rack has a clip light on the final meter. In addition, each mixer channel also has a clip light to enable you to determine the point at which your signal is surpassing 0db. This light will only show in red in the event of clipping.

The Reference Utility

You will find a reference icon 🎧 on the master channel. This plays a short mastered sample, to provide some indication of whereabouts your composition lies in terms of levels, stereo spread, etc., and can be useful for quick A-B comparisons.

Automation, Recording And Performing

FX Rack Automations

You can automate parameters in your FX Racks by using the automations indicator button on individual fx units ⚟.

Enabling And Recording Rack Automations

Select the record button and recording will commence when you press play on the Master Sequencer. The automations are conveniently arranged in your song sections and each section for each parameter can be erased independently using the automations display panel on the Sequencer. You can also clear all automation parameters for a given FX using the eraser on the FX panel. When recording automations, the display panel on the Sequencer will automatically switch to the FX and parameter being recorded. When automations are present on a given rack, the automations indicator ⚟, next to the mixer channels for that rack, will light up. If the FX panel for that rack is open, the same icon will also be present against FX units that have automations. You can also draw and edit your automation points directly on the automation canvases.

Volume Automations

Volume automations are contained within patterns in your song structure. You can use the ⚟ symbol, available under the more ••• icons, against each of your patterns and select a volume automation setting for that pattern. The ramp selection for example is linear and

ramps the volume from the start of the pattern to the end. If you need short ramps therefore, simply use a short pattern that leads onto a longer pattern of the same loop and apply the ramp effect on the first pattern. It's important to note that these volume automations are per pattern and localised. This means that your track volume on the Mixer is unaffected and will not be automated. You therefore do not need to worry about your mixer channel volumes being fixed at certain points when mixing.
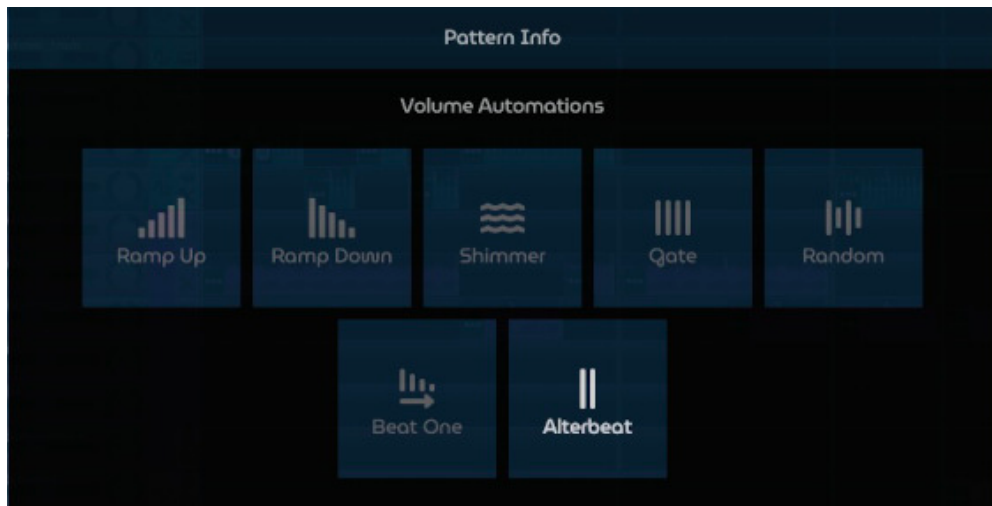
Automations On The Player, Drummer and Slicer

FX Racks On Every Pattern
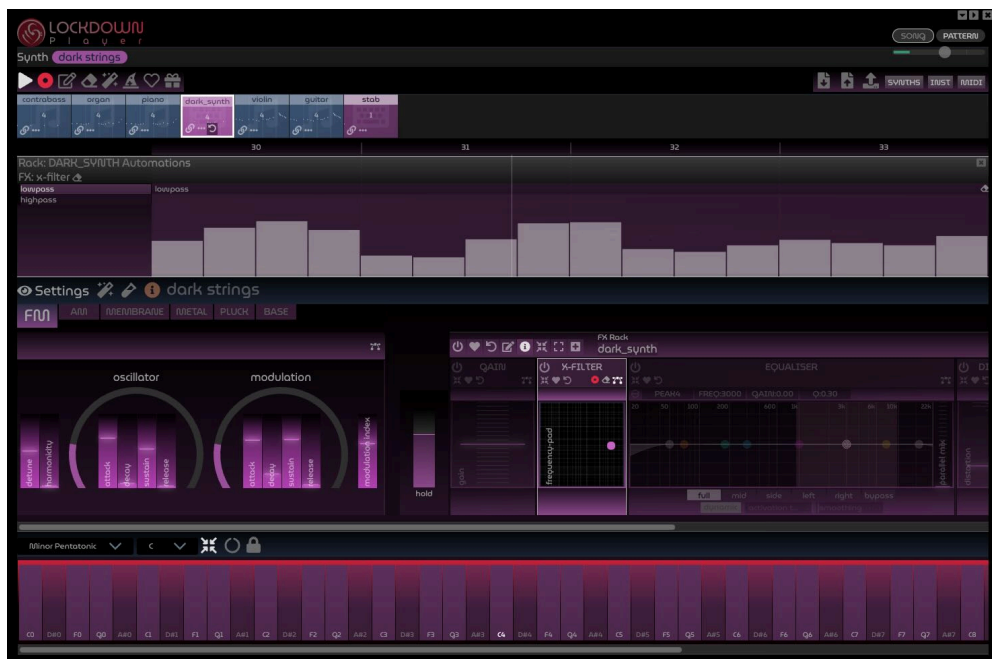
You can record and edit automations again fx unit params on each of the audio units. FX Racks are available against each pattern and the drummer also has the concept of shared and solo racks, similar to the master sequencer, and you can use these to group drums for collective sound shaping. FX racks on individuals audio units are pre-fader.

The master record button on the Creative Toolbar provides you with different recording options. You can record everything you do in LOCKDOWN, record just the performance units such as the Drummer, Sampler and Pad-Lock, or even record 4 separate streams from pairings of your 8 shared FX Racks. You can do all this in addition to automations you may have already recorded. These recordings are stream based and linear in fashion, regardless of the section of song you are playing, including loops.

## 4-Channel FX Rack Recordings

LOCKDOWN provides an unlimited number of fx racks, consisting of 8 shared racks, a master rack and SOLO racks per track. You can record performances on each of these racks and everything else in LOCKDOWN using the **Record Everything** option. You can channel different tracks of your song through any of the performance racks, but LOCKDOWN provides colour-coded hints to encourage use of shared rack pairs per sample category of mixdown, drummer, player and vocals. This is to simplify arrangements and also to benefit most from the recording and shaping permutations that are available. The 4-Channel recording option records 4 separate channels, with each channel recording the colour-coded shared rack pairs. After recording, you can preview the audio for each stream separately and replace or merge with any sample in your sample categories.

Recording The Performance Units

This recording option produces a separate stream for all interactions with the Drum Pads, the pads on the Pad-Lock unit and also any notes played on the Player. You can record your performances on the drum pads, including switching the drum patterns as the Drummer runs. You can switch patterns manually or activate the pattern looper ⋰ to cycle through your patterns. You can also enter a compact mode that provides larger pads, if you just want to jam. The Pad-Lock unit conveniently gathers all your faved slices from the Slicer, which you can use to perform and record over your sequencer loops, drummer loops or audio loop transitions on the Slicer in sync mode.

FX Racks In Performance Mode
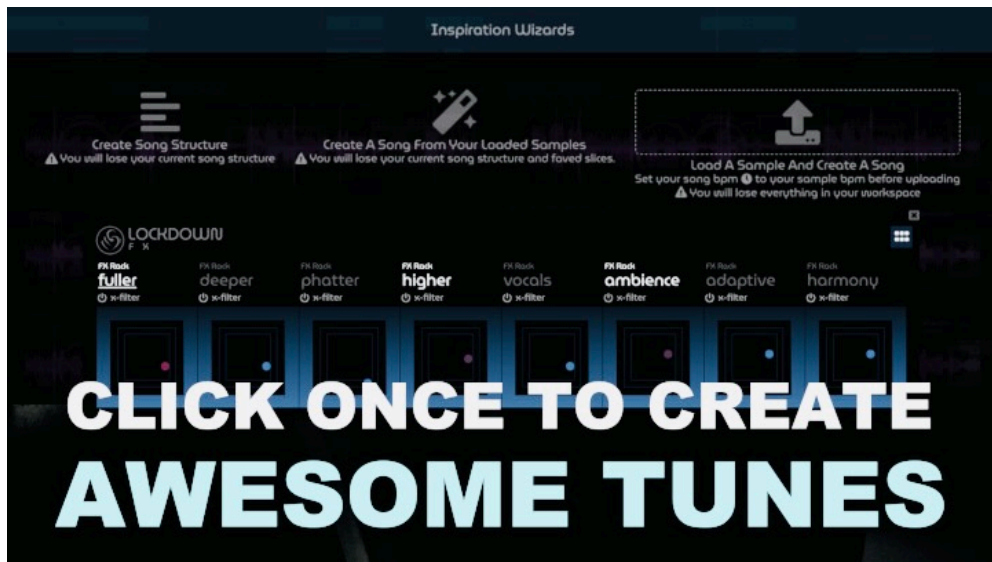
The FX Racks have a performance grid mode ⠿, which conveniently gathers all the performance-oriented X-Filters from all the racks in one convenient dashboard. The filters are colour-coded and LOCKDOWN will light up active filter pads as they are activated by various parts of your song, enabling you to perform, shape and record in realtime.

More ...

These are just some examples of the options you have available to easily perform and add movements to your sounds. With the master record button on, you can easily create additional samples, which you can bounce and slice. You can try the Sync mode ↻ on the Slicer and record the sample accurate transitions of your audio loops and record over the top with your other performance units. You can also loop your sequencer and upload patterns from the Slicer in sample accurate transitions. You can record fx sliders, volume levels, synth sliders, etc. You can record pretty much any activity that shapes your sounds within LOCKDOWN, in different channel arrangements, in addition to the rack and volume automations.

File Management

Project Files

Although you sign up and use LOCKDOWN from our web domain, we do not store any of your project data on our servers. LOCKDOWN projects are encoded into a single text file that you can move around like any other file. These files can be quite large in size (not dissimilar to other audio visual apps), depending on the sizes of your samples.

Using Cloud Drives

LOCKDOWN projects are encoded into single text files, which can be moved around like any other file.

Drum Samples

When you save projects, your drum samples and patterns are saved as part of the project. But the Drummer provides its own load and save functionality, which can be used to save and load drum samples. Please note that the patterns are saved within the 16 patterns available on the Drummer (and anything that you may have bounced onto the song structure). The local Drummer save and load operations deal with the audio samples, together with their volume and pan settings only. Similar to project files, the Drummer files are encoded into a single text file for convenience.

Player Patches

Player patterns, including the sound shaper rack settings are saved within the project file. You can also save player patches independently using the save and load options available on the main player toolbar. The player patches are saved in single text files, just like Drummer samples and complete project files.

Using Your Own Samples

You can load samples from your local file system or via URL ... from cloud drives for example. Use the media icon 🎛️ on the Creative Toolbar. You can also search for sounds on FREESOUND and generate different types on noise using the noise generators.

Sample Usage Dialogue
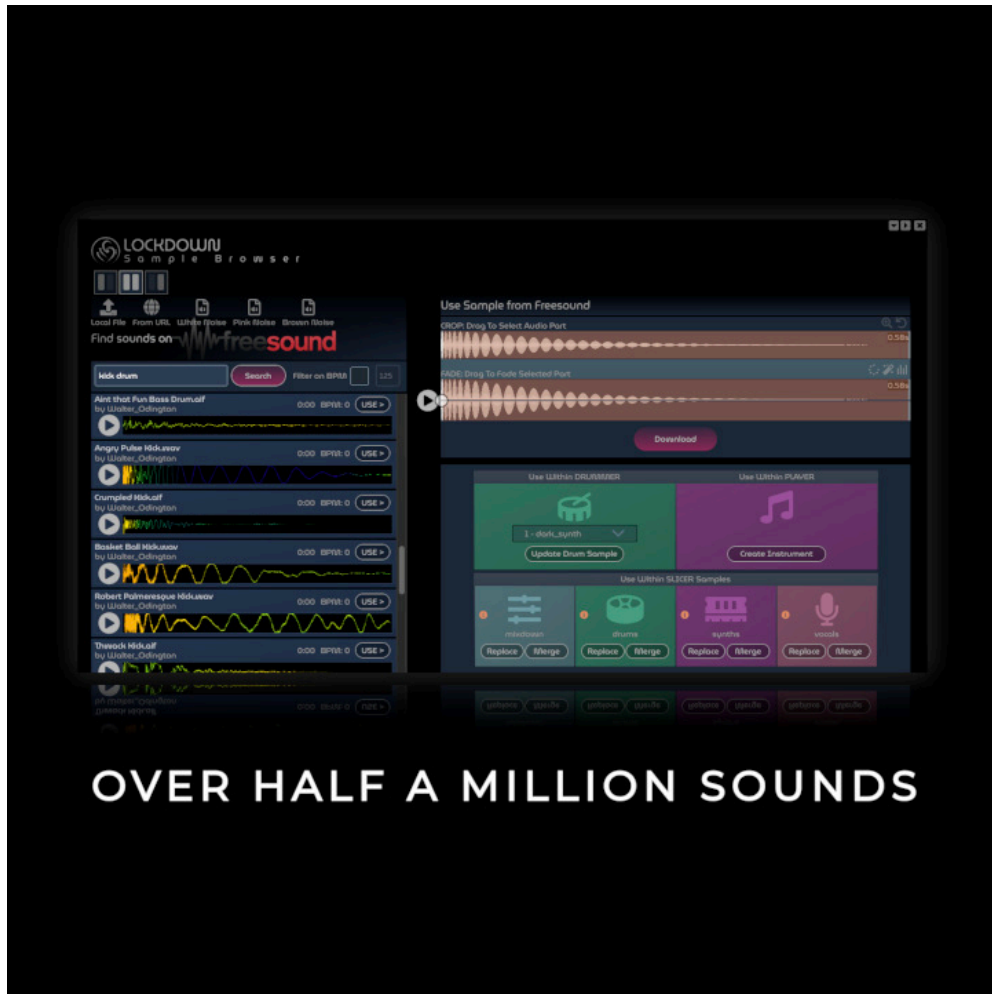
OVER HALF A MILLION SOUNDS

Downloading Samples

All bounces for audio, whether that's a complete song, parts of your song, or anything else that you bounce can be downloaded. This includes loops, synth patterns, drum patterns, slicer samples, master out recordings, vocal samples, etc.

Saving And Loading MIDI Mappings

Any MIDI mappings are saved within your project files. You can also save and load these mappings from individual mapping files.

Bouncing And Downloading Songs

A one-click bounce is available to bounce your complete track or selected sections. Use the package icon 🎁 from the main toolbar. This 'Quick Bounce' option simply ignores reverb and delay tails between sections in exchange for speed. This can be useful if your project contains a lot of Drummer and Player patterns, which can take a significant amount on time to render using the WebAudio API.

Dragging And Dropping Files

You can drag and drop files on to different parts of the LOCKDOWN studio, including the Master Sequencer and also various pop-up dialogues that enable you to load files or merge bounced audio sections. You can drag and drop project files, Drummer and player patch files, midi mapping files as well as audio files in various formats, including .wav and .mp3. When dragging audio files onto the various loader and bounce dialogues, you have the options to merge or replace complete samples on the Slicer on drum samples on the Drummer. When dragging files onto the Slicer, you will not be prompted with the merge and replace options. Your dragged audio fragment will be appended to the sample end. When dragging files onto the sampling window against drum pads, only the first bar of the audio will be sampled. If you need more control over the sample, drag it onto the Slicer or the project background and use the slicer and fader to locate and fade the part of the sample that is relevant before using it as a drum sample.

Performance And Tuning

General

Although LOCKDOWN runs within browsers, it uses local processing power. Like all audio visual apps, it can benefit from a clean environment, maximising memory and CPU capacity. LOCKDOWN has some powerful audio units, which can all run simultaneously for layering and discovery. Unless you are performing and need all units open at the same time, you can reduce system load by closing unwanted units. For typical compositions, things should run smoothly on latest hardware. But, if you utilise a lot of tracks, complex and layered note sequences, together with busy FX Racks, your sessions can benefit from some performance tuning for a smoother experience.

Latency Hint Setting

One of the main performance settings for the WebAudio API is the latency hint setting. You can find this within the Settings | Performance tab ⚙. This will be automatically set based on what your browser determines it can support, taking into consideration the specification of your underlying hardware. LOCKDOWN will also try and adjust this to balance your environment between interactive and sustained playback modes. Not all browsers support this setting. You can learn more in the [installation info page](). If it is supported, you should be able to adjust it and fine-tune your environment to suit the type of composition or performance you are undertaking. Please note, when you adjust this slider, it will snap to what your browser thinks the underlying hardware environment can support.

Cleaner and Optimiser

Within the performance settings panel, you'll find an optimisation option. This cleaner and optimiser is also available on the toolbar at the top of the master mixer. The cleaner, refreshes the audio context and can be useful in some circumstances to revive audio playback, following any CPU overload conditions. However, the actual cause of any performance issues will need to be addressed to prevent re-occurrence. This can be aided by the colour coding of the playhead bars. See below for more info.

Performance Optimisation Indicators

All playheads on the timeline will normally be a steel blue colour. Sometimes, they may also become amber or red, coupled with an info icon to the left of the timeline, to explain potential issues. These colours indicate the weighting of song patterns for every bar of your song that LOCKDOWN thinks may encounter performance challenges during realtime playback. Note that these indicators do not have any relevance for the bounce operations, which are batch processes and should still complete successfully although the process may take longer than usual.

Handling Performance Indicators

LOCKDOWN provides a range of powerful sonic wizards that can instantly create layered note sequences, drum patterns as well as audio loops and a range of FX Rack presets with very complex and powerful audio processing capabilities. Each pattern on the song can have pre-fader and post-fader FX Racks associated with them, leading to complex audio graphs. These complexities are continuously monitored and reported in realtime. You can take a range of measures to reduce these overheads by using well-known techniques for freezing and re-sampling to audio as well as re-sampling to create new sampled instruments. Some of these techniques are detailed below, together with other measures to make your experience much smoother.

Turn Off Browser Dev Tools

If you use the browser dev tools for your other tasks then it's best to close this feature while LOCKDOWN is running. Dev tools can have a significant performance impact.

Reduce Browser Tabs

If you use different browsers and a lot of tabs at the same time, try and minimise the browsers and tabs you have open when using LOCKDOWN. Depending on the environment you are working on, some browsers can hog significant chunks of heap, reducing your capacity to utilise the CPU fully.

Close Other Apps

The same arguments for the reduction in browser tabs applies here. If you don't need certain apps to be open during LOCKDOWN sessions then close them for a smoother performance.

Reduce Sample Lengths

One of the core audio units in LOCKDOWN is the Slicer, which uses four sample categories. You can add as many samples as you want into these categories, which can lead to lengthy audio fragments utilising large amounts of memory. Unless you are going to be using these samples in your compositions, it's best to delete them or reduce their sizes. As well as better performance, this can lead to significantly smaller project file sizes.

Reduce The Number Of Tracks

The number of tracks in your compositions is only limited by your system resources. Some tracks are heavier than others in terms of processing requirements. The heaviest tracks are of type Player, which can incorporate patterns from various 32 voice synths. Unless you need so many tracks in open midi format, you can bounce patterns from the Player and the Drummer onto the Slicer, which uses dramatically less resources ... and you will also benefit from the additional loops, which the Slicer creates for you.

Use Same Patterns On The Same Track

You can drag and drop patterns onto the Sequencer from the Slicer, Drummer and the Player. Unless you want to shape different patterns using different FX Racks, it's best to ensure the same pattern numbers reside within the same track. A separate player is created for each pattern in each track, which can multiply resource usage if used unwisely.

Stop And Restart The Master Sequencer

Depending on the complexity of your compositions and the available system resources, at some point you will hear the telltale pops and crackles to indicate the CPU is struggling to keep up with the demand that is being placed upon it. The easiest thing to try is to stop (not just pause) the Sequencer. This will refresh certain players and may help with performance and potentially other scheduling issues.

Synths Can Be HEAVY

Use synth patterns sparingly. Each pattern on each track can create a 32 voice player, which can be a significant drain on resources, especially if you are interactively using the Player to layer additional synth patterns whilst the Sequencer is playing. If you need more headroom for your compositions, you can use the 'synth to sampled instrument' icon ⚗ to create a sampled version of your synth. Sampled instruments consume significantly less resources compared to synths.

Bounce To The Slicer

As we have mentioned earlier, you can bounce Drummer and Player patterns onto the Slicer and benefit from performance gains as well as additional benefits of auto-sliced loops that the Slicer creates for you. This approach will have the largest performance gain in your compositions and enable you to utilise the maximum number of tracks for your available system resources.

Turn Off Unused FX Units

Each pattern on the drummer, player and slicer has its own set of fx racks. The drummer has 4 shared racks and can have upto 16 solo racks, one against each drum if required. Minimise the number of FX Units where possible and don't forget, you also have complete FX Racks against each of your tracks on the song structure, which are generally more efficient since they act on groups of tracks instead of each song pattern.

Remove Unwanted Notes On The Player

It's easy sometimes to use the powerful sound shapers to virtually eliminate the effects of certain notes ... LOCKDOWN is designed to do this for rapid sound shaping. However, you can gain performance improvements by removing unwanted notes from your sequences.

Reduce Note Lengths

Too many lengthy notes, especially those with rapid tail fades, do not really add to the compositions, but can hog voices unnecessarily. This is especially true of the complex synths. Therefore, reduce note lengths unless you need them. Remember, you can always bounce note sequences to the Slicer and loop them on the Master Sequencer arrangement.

Turn Off Unused FX Units On FX Racks

Disable unused fx units on fx racks by using the power buttons. You can also utilise the resampling options available against each of the audio units to 'freeze' your sound, shaped by the fx racks.

Reduce Realtime Automations

Realtime automations add to the CPU load. This can be significant if utilised liberally. You can always record or bounce your loops with automations onto the Slicer and benefit from the flattening effect, which can provide significant savings in system resources.

Wait A Bit

You can watch various system resource meters to gain a high level idea of resource utilisation. LOCKDOWN is a browser app that uses the Web Audio API. It relies on the garbage collection characteristics of the browser that is being used to run it. If you find things are running 'hot', you can stop the various sequencers, wait a while and start again. This can sometimes help, but depending on the state of your browser tab and the system heap, you may need to reload the LOCKDOWN studio.

Save Refresh And Load

Browser tabs can sometimes get bogged down and unable to recover. If all else fails and you are still experiencing performance issues, you can save your project, create a fresh new tab and reload your project for a clean schedule. For most compositions, LOCKDOWN is well optimised to help you gain the best from your system resources, but some tuning can improve your overall experience.

Additional Help And Troubleshooting

Get In Touch

We hope you enjoy LOCKDOWN. We are a passionate and sociable bunch and love all things related to electronic music. If you need additional help and support, just engage with us on our forum or contact us via email. You will find links on our website. You can also check out our YouTube channel for video tutorials that cover the key LOCKDOWN concepts. Enjoy :)