



FRACT OSC MANUAL

UPDATED: APRIL 20, 2014

TABLE OF CONTENTS

THE GAME	3
SYSTEM REQUIREMENTS	3
INSTALLATION	4
MENUS	4
GAME SETTINGS	5
GRAPHICS SETTINGS	6
STUDIO SETTINGS	7
CONTROLS	8
MOUSE/KEYBOARD CONTROLS	8
CONTROLLER	9
MOVING BETWEEN THE WORLD AND THE STUDIO	9
STUDIO	10
LOCKS	10
STUDIO TOOLS	10
CORE SYNTHS	11
STEP SEQUENCER	13
PATTERN SEQUENCER	13
QUEUEING	14
LOOPING	14
COMPOSING SONGS IN THE STUDIO	15
SAVING AND SHARING SONGS	15
ADVANCED SYNTH CONTROLS	17
FAQ	18

THE GAME

FRACT is a musical exploration game. You arrive in a forgotten place and explore the vast and unfamiliar landscape to discover the secrets of an abandoned world that was once built on sound.

Part of the experience is arriving in this new place and trying to figure out what to do, and where to go next. As you start to make sense of this strange new environment, you work to rebuild its machinery by solving puzzles and bring the world back to life by shaping sound and creating music within the game.

FRACT features a beautiful open world to explore and decipher with music-based puzzles, stunning visuals, and an amazing score that evolves as you play. As you progress through the game, you unlock tools to make your own music in the FRACT studio, where you can also export and share your creations with others.

SYSTEM REQUIREMENTS

WINDOWS	
Minimum System Requirements OS: Windows 7 Processor: Core i5 2.2 GHz or equivalent Memory: 4 GB of RAM Graphics: Radeon 5850 or equivalent DirectX 9.0c or higher 1.5 GB disk space Sound card required Headphones and/or external speakers recommended	Recommended System Requirements OS: Windows 7/8 Processor: Core i7 2.4 GHz or better Memory: 8 GB of RAM Graphics: Radeon 6850 or equivalent DirectX 11 2 GB disk space Sound card required Headphones and/or dedicated speakers recommended
MAC	
Minimum System Requirements OS: OSX 10.7x or higher Processor: Core i5 2.2 GHz or equivalent Memory: 6 GB of RAM Graphics: Radeon 6750M or equivalent 1.5 GB disk space Sound card required Headphones and/or external speakers recommended	Recommended System Requirements OS: OSX 10.7x or higher Processor: Quad Core i5 or i7 2.2+ GHz or equivalent Memory: 8 GB of RAM Graphics: Radeon 6970M or equivalent 2 GB disk space Sound card required Headphones and/or dedicated speakers recommended

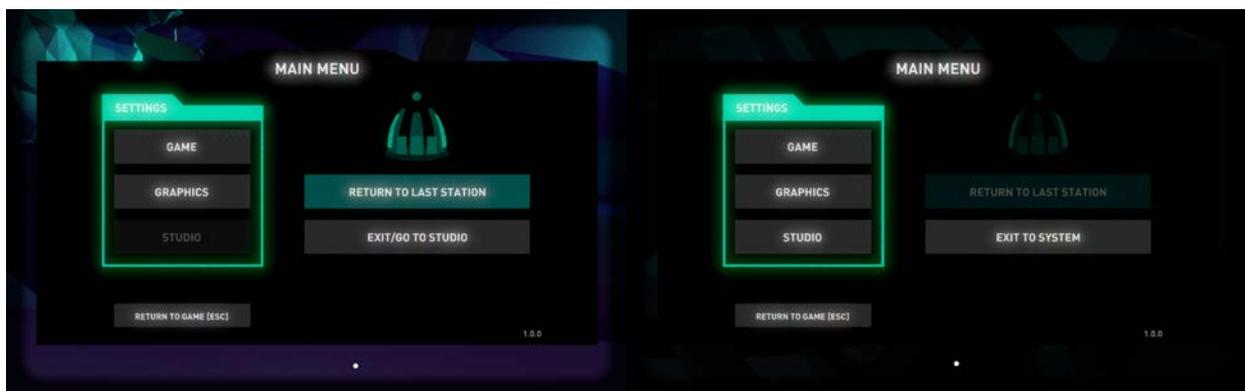
INSTALLATION

VERSION	INSTRUCTIONS
STEAM	<ol style="list-style-type: none">1. Login to Steam2. Install FRACT OSC through Steam application
DRM-FREE	<ol style="list-style-type: none">1. Download the file from GOG.com or Humble2. Extract the archive3. Launch FRACTOSC application

MENUS

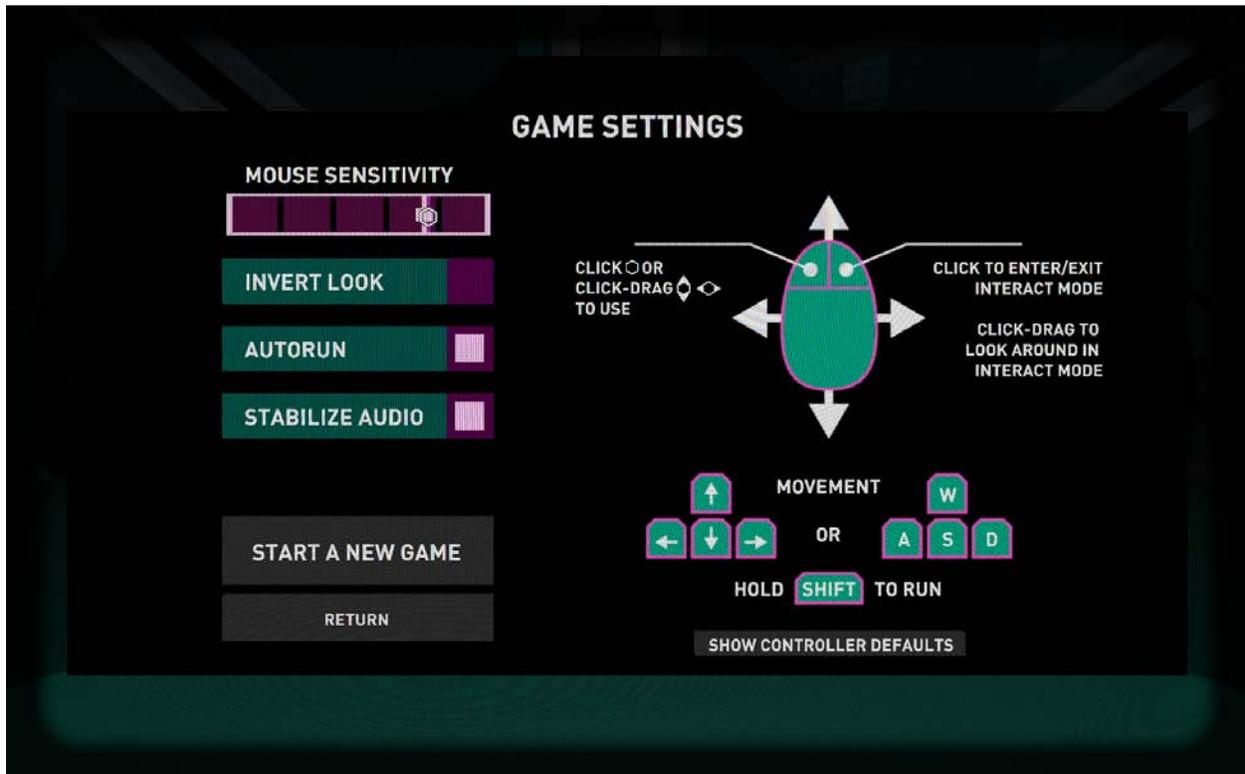
You can access the menus in the game by pressing the ESC key on your keyboard (or START button on a controller), which will open up the MAIN MENU and give you three setting options: GAME, GRAPHICS and STUDIO. You also have the option to RETURN TO GAME, or can press ESC to exit the menu.

When you're in the world, you have the option to RETURN TO LAST STATION, which will bring you back to the most recently visited fast-travel station. You can also EXIT/GO TO STUDIO. Once in the Studio, you can EXIT TO SYSTEM from the same menu. However, you must go through the Studio to exit the game.



GAME SETTINGS

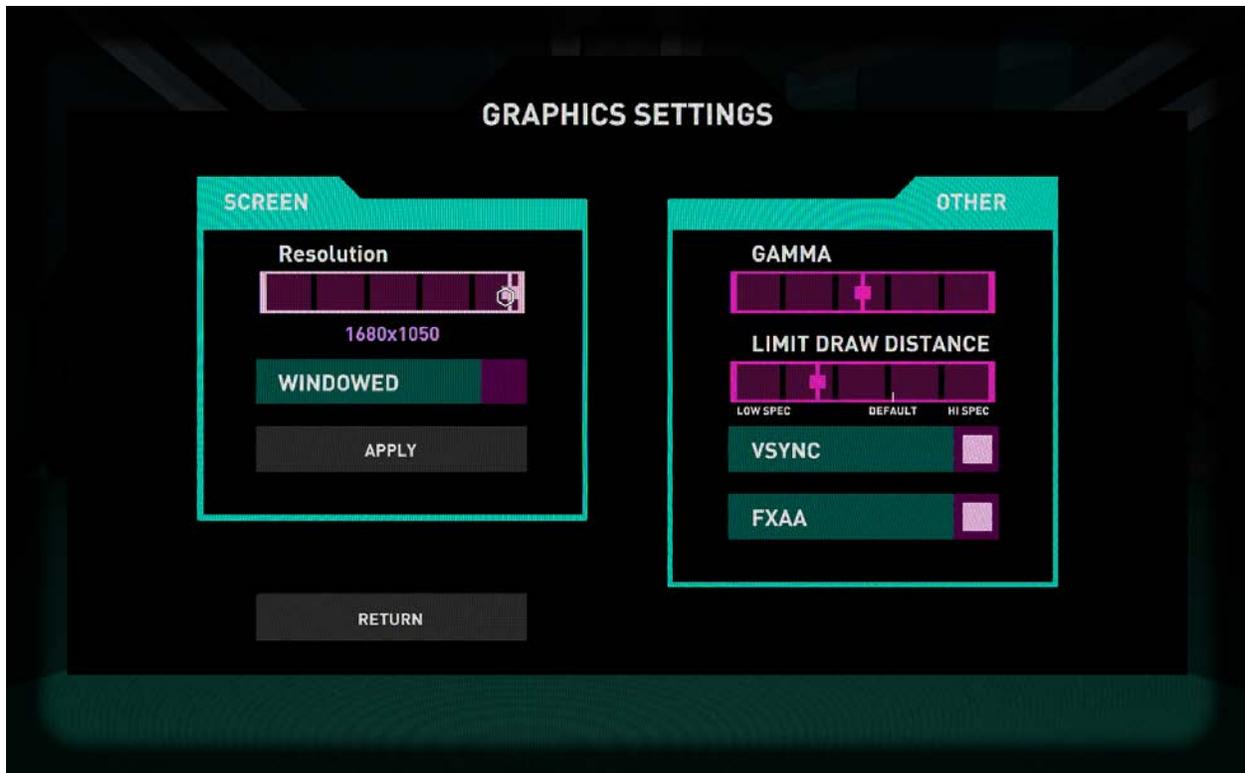
In the GAME SETTINGS menu, you can change the MOUSE SENSITIVITY with the slider (slide to the right for increased sensitivity). Default settings for both mouse and controller are UP to look up and DOWN to look down. You can invert these settings using INVERT LOOK.



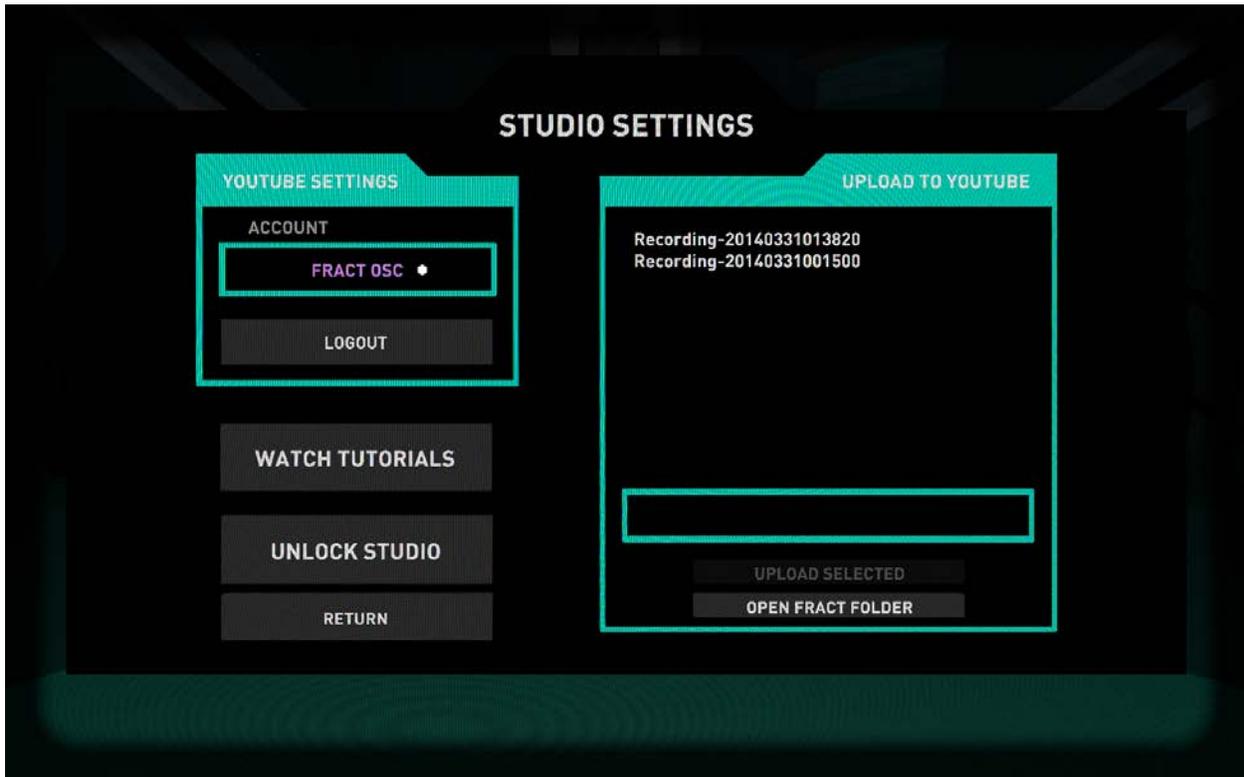
For those looking for a less leisurely pace of movement, use the AUTORUN feature. The STABILIZE AUDIO feature can improve audio stability on lower-end systems, but can cause issues on some types of audio hardware. If you do encounter problems when using this feature, restart the game or deactivate STABILIZE AUDIO. You can also START A NEW GAME from this menu, which will delete your savegame and start the game over from the beginning.

GRAPHICS SETTINGS

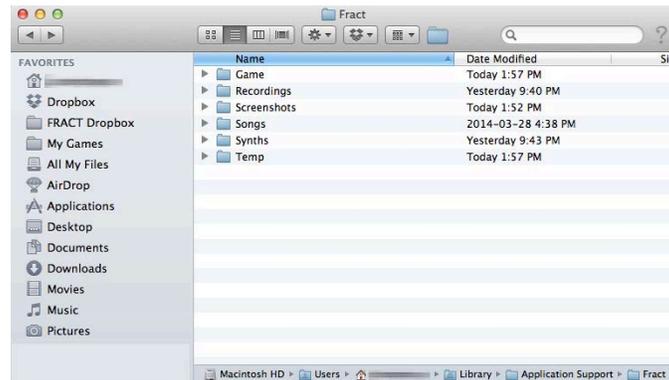
In the GRAPHICS SETTINGS menu, you have options to change SCREEN RESOLUTION or set the display to WINDOWED. After making a selection, click APPLY to apply the changes. Enabling VSYNC can help synchronize frame rate of the game with the monitor refresh rate for better stability, but can affect performance. Lastly, clicking FXAA enables fast approximate anti-aliasing, which will smooth out some edges in the game at a performance cost.



STUDIO SETTINGS



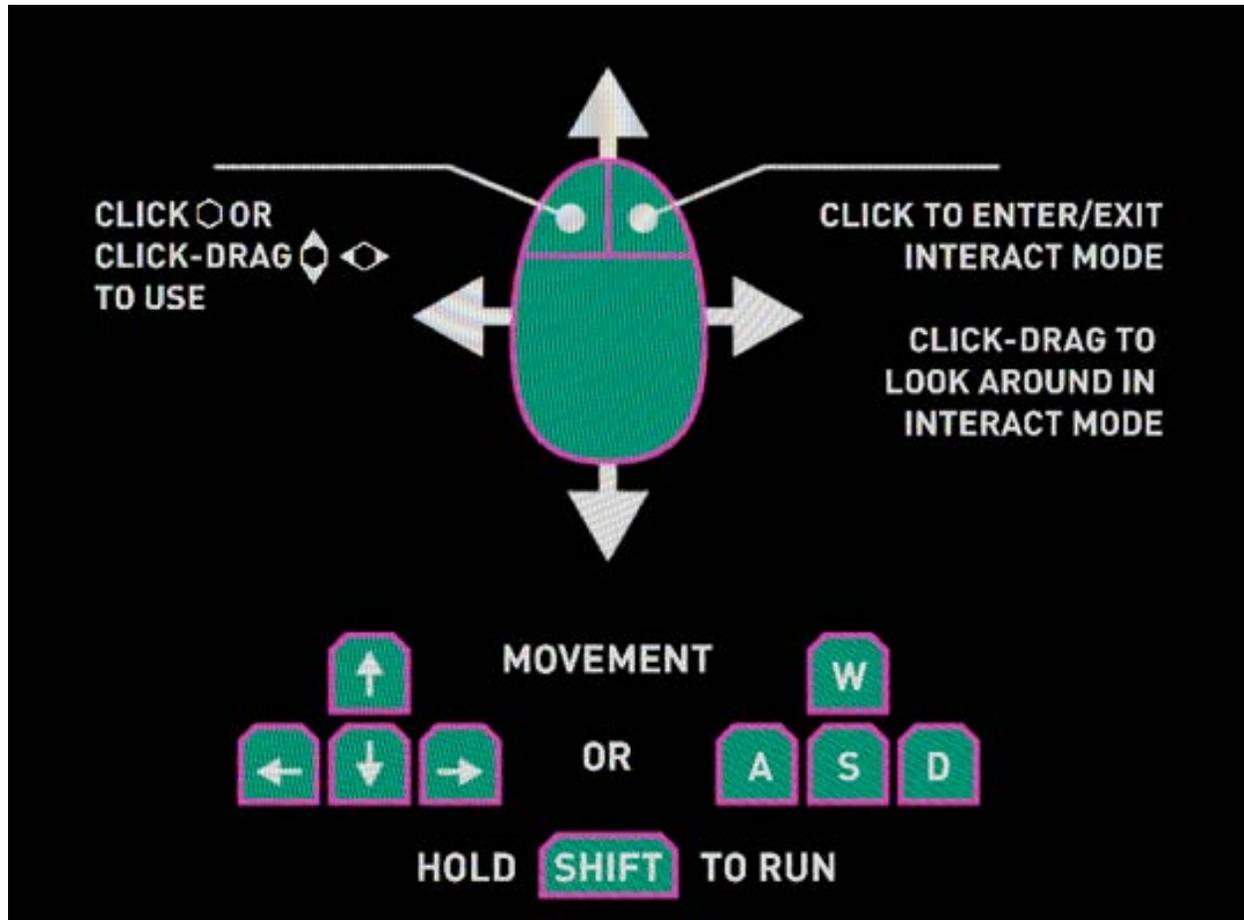
In the STUDIO SETTINGS menu, you can log into YouTube and upload recordings you make in the FRACT Studio. More details about how to do this can be found in the STUDIO section of this manual. You can also WATCH TUTORIALS for [tips on how to use the Studio on YouTube](#), and OPEN FRACT FOLDER to access files you create in the game, including screenshots, recordings, songs, synth settings, and savegames.



UNLOCK STUDIO allows you to unlock all the tools in the Studio, even if you haven't unlocked them all in the world. However, using this feature is permanent, so you will override your unlock progress of Studio tools in the world – but it will not affect the game otherwise in the world.

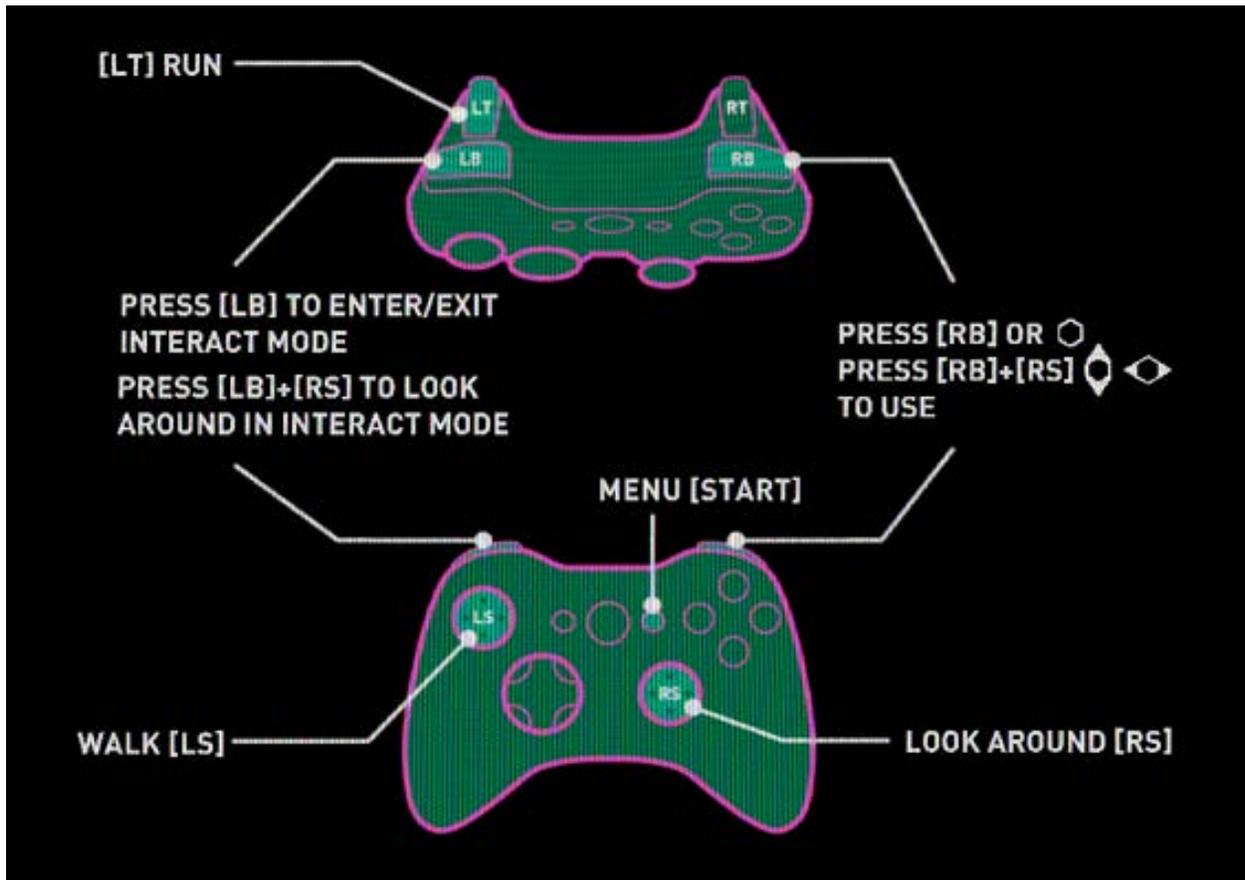
CONTROLS

MOUSE/KEYBOARD CONTROLS



MOVE	WASD or arrows to move Hold SHIFT to run
INTERACT	Click RIGHT MOUSE BUTTON to enter/exit interact mode Click LEFT BUTTON or click-drag left/right or up/down to use
LOOK	MOUSE to look around HOLD RIGHT MOUSE BUTTON to look while in interact mode
MENU	Press ESC to bring up menu
OTHER	Press F7 or fn-F7 to take a screenshot

CONTROLLER



MOVE	LEFT STICK [LS] to walk LEFT TRIGGER [LT] to run
INTERACT	Press LEFT BUMPER [LB] to enter/exit interact mode Press RIGHT BUMPER [RB] or RIGHT BUMPER + RIGHT STICK [RB]+[RS] to use
LOOK	RIGHT STICK [RS] to look around Press LEFT BUMPER + RIGHT STICK [LB]+[RS] to look while in interact mode
MENU	Press START to bring up menu

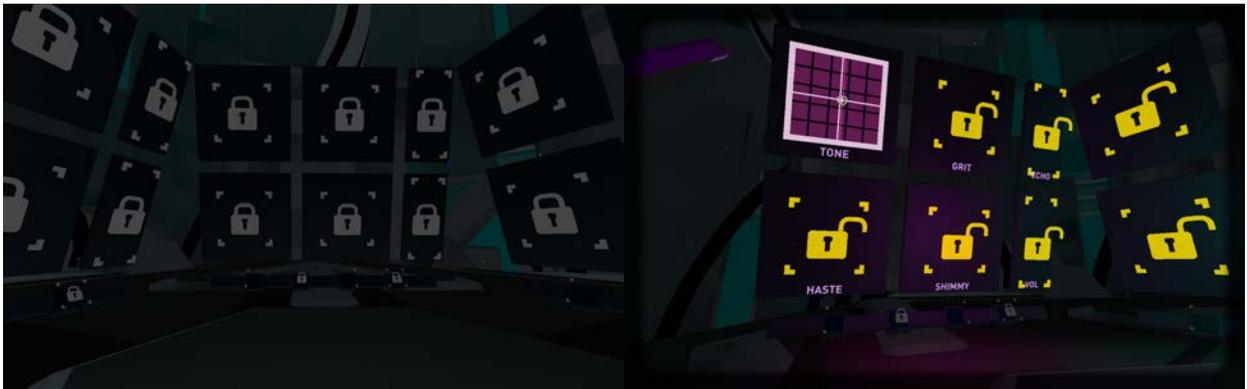
MOVING BETWEEN THE WORLD AND THE STUDIO

You start the game in the Studio then move into the FRACT world through the doorway in the level below. Once in the world, you can move back to the Studio through the main menu by pressing EXIT TO STUDIO. To move from the Studio to the world, go back through the doorway in the level below the Studio.



STUDIO

The Studio is where you begin the game, and where you can go back to at any time. As you progress through the world, you'll unlock tools that you can use in the Studio, which allow you to shape sounds and create your own music.



LOCKS

When you first start in the studio, everything is locked. As you progress through the game, studio tools become unlocked and available for you to use. Once a tool is unlocked, click on the unlock icon to reveal it.

STUDIO TOOLS

In the FRACT Studio, you have the following tools:

- 3 core SYNTHS (or instruments) and their controls: LEAD, BASS, and PAD
- STEP SEQUENCER: where you write small passages (or PATTERNS), that the synths will play. Each pattern is composed of STEPS, or notes
- PATTERN SEQUENCER: where you can arrange your patterns into a composition or song, for the synths to play. This panel allows you to control what parts of your song are currently playing, looping, and what's going to play next, and also has global controls, like speed and playback.

You can also watch the [Studio Basics video tutorial here](#).



CORE SYNTHS

All three core synths have a similar layout:

- On the right: a VOLUME slider (controls how loud) and ECHO slider (how echoey it sounds)
- 4 main controls for each synth, which changes how it sounds and how it behaves when it's playing.

The LEAD SYNTH tends towards higher notes and sharper sounds that really stand out in a composition, so it tends to be used for melodies. The main controls for the lead synth are 4 types of X-Y pads:

- TONE: changes how fat/thin/smooth/sharp it sounds
- GRIT: controls filters which open and close the sound in interesting ways
- HASTE: controls how fast and slow the notes play
- SHIMMY: adds a little or a lot of wobble to the sound.



Lead synth controls

The BASS SYNTH is good at making lower, bassier sounds. The main controls for the bass synth are 4 types of sliders:

- BEND: changes from a sharper to smoother tone
- PINCH: controls a filter, which removes or emphasizes different parts of sound

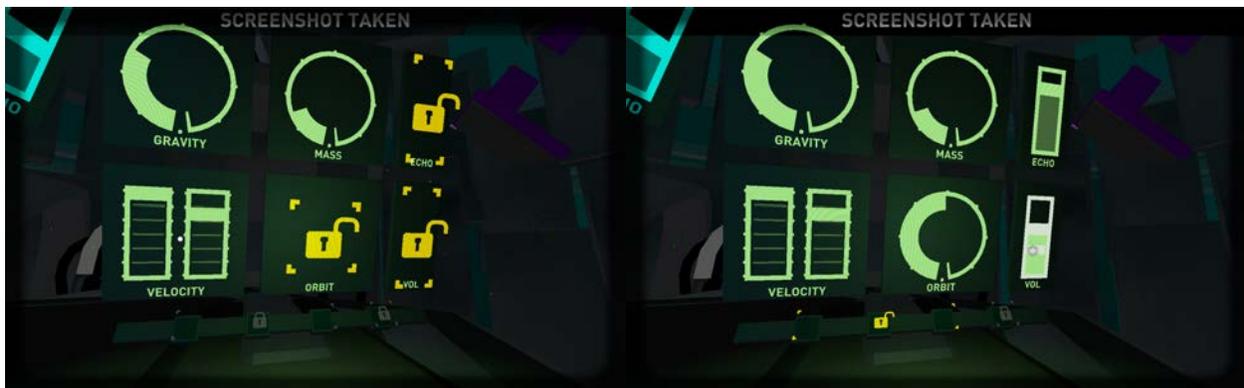
- KICK: controls how quickly the note starts, finishes, and how it is held
- SHAKE: controls how much the sound warbles



Bass synth controls

The PAD SYNTH is good for ambient, washy sounds, and is different from the other two synths in that it can play up to four notes at the same time. The main controls for the pad synth are knobs and sliders:

- GRAVITY: affects the shape of the sound, making it sharper or smoother
- MASS: thins out or beefs up the sound using a filter
- VELOCITY: these two sliders change how quickly the notes start and stop
- ORBIT: adds wobble to the sound



Pad synth controls

You can also watch the [Core Synths video tutorial here](#).

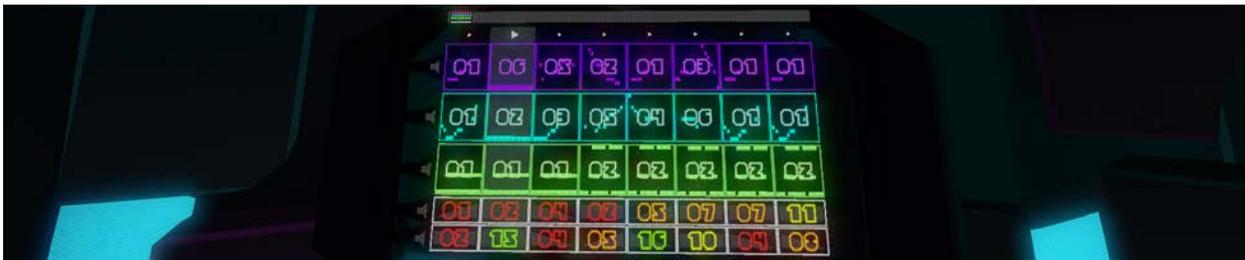
STEP SEQUENCER



The STEP SEQUENCER is where you compose the patterns that make up your song:

- Each pattern is one bar long, and can be arranged in the Pattern Sequencer
- Selector on the left allows you to switch between the three instruments: lead, bass and pad
- Bar on the bottom lets you scroll through the 16 available patterns (per synth)
- You can click each cell to either enable or disable a step in the sequence, or click and drag to paint the notes in the pattern
- Lead and bass synths can only play one note at a time, while the pad synth can play up to four notes simultaneously
- Hit RESET to clear the current pattern

You can also watch the [Step Sequencer video tutorial here](#).



PATTERN SEQUENCER

The Pattern Sequencer is one of your main tools in the Studio, and it's where you'll can compose, arrange and even perform your own songs.

At the top, there are some important controls:

- PLAY/STOP button: starts or stops playback of the Pattern Sequencer
- BPM slider: adjusts speed of playback
- RECORD: lets you record what you compose/play. If you press the RECORD while the Pattern Sequencer is playing, it will start recording immediately. To stop recording, press RECORD again. Recording will also stop automatically when you

stop the Pattern Sequencer. If you want to record as soon as you start playing press the record button when the Pattern Sequencer is not yet playing, to arm the recording. As soon as you hit play, it will begin recording immediately

- SAVE: saves songs to your FRACT folder. It will save both the sequences and the settings of the synths that are playing
- LOAD: loads previously saved songs into the Pattern Sequencer

The main pattern sequencer grid is where you'll be making your songs.

- At the top we have the master scrollbar, which lets you scroll through and look at all the bars in your song - it scrolls 1 bar (or pattern) at a time
- Each row in the pattern sequencer grid represents one instrument
 - Top 3 rows, from top to bottom: lead, bass synth
 - Bottom 2 rows: beat rows
- When you hit play, playback moves from left to right through each column or bar on the grid. When it gets to the end of the song it loops back to the beginning
- To arrange a song, choose what pattern you want for each column, for each instrument. You choose patterns by click-dragging up or down on each block

QUEUING

At the top of each column (or bar) in the Pattern Sequencer is a little play button. If you press one of these buttons while the song is playing, at the next bar it will hop back to this position and play from there. If you press one of these buttons when the song is not playing, when you DO press play it will start from that position

LOOPING

To focus playback on a section of your song, use looping. To loop a section of your song, you drag left to right to define your loop region (the section you want to play). To disable the loop, click once on any little play button, and playback will resume normally from there.

To isolate a single instrument or synth, you can do this by setting all of the other instruments' patterns to 00. Another quick way to do it is by muting the instrument by clicking the MUTE button to the left. To unmute, simply click again.

You can also watch the [Pattern Sequencer video tutorial here](#).



COMPOSING SONGS IN THE STUDIO

There are a lot of different ways to go about making music in the studio in FRACT. Check out the [Composition Basics video tutorial here](#) to see one way you can go about it.

SAVING AND SHARING SONGS

You can save the songs you make in the Studio by clicking the SAVE SONG button on the left above the main Pattern Sequencer grid. When you do this, it saves both the sequences and patterns that you've made and also the settings for the three synths. To save, put in a new filename or overwrite an existing one.



Saving and loading songs

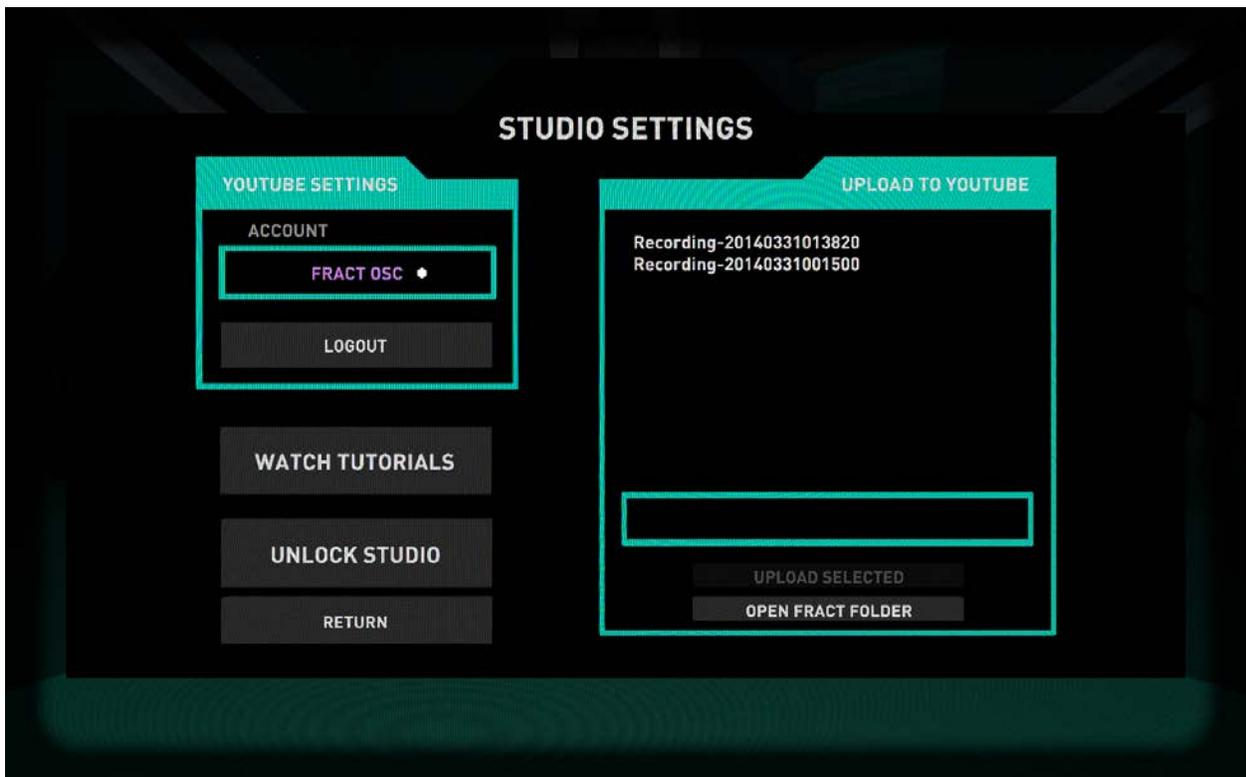
If you want to load a song you've already saved, then click the LOAD SONG button below the SAVE SONG button, and it will bring up a menu that allows you to choose which song to load.

You can also save synth settings, or presets, on each individual synth. Presets define how that synth, or instrument sounds, and can be done with the core synth controls or the advanced synth controls. To save synths, click the SAVE SYNTH button below the main controls to bring up a menu, where you can name that synth preset. Similarly, to LOAD SYNTH, press the leftmost button below the main controls to bring up the menu.



Saving and loading synth presets

If you ever want to access your songs or synth presets (which you can share with others), open the FRACT folder through the STUDIO menu. You'll find them in the folders "Songs" and "Synths". This is also where you'll find any recordings you make, in the "Recordings" folder.



If you want to share a recording you've made (and we hope you do!) with others on YouTube, you can do so easily through the game. To do so:

- Connect your YouTube account to FRACT through the STUDIO menu
- Choose which recording you want to upload from the menu on the right
- Give it a title (you can change this later on YouTube)
- Decide whether to make it public or not (you can also change this later)

And voila! You've shared your creations with the world – or YouTube, at least. We can't wait to hear what everyone comes up with.

You can also check out the [Saving and Sharing video tutorial here](#).



ADVANCED SYNTH CONTROLS

You can access the advanced synth controls on each synth either by solving the game, or by unlocking the Studio tools in the menu. Advanced synth controls give you more tools to shape the sound of the synth. They include the following:

- Voice: wave shape x suboscillator amount (SUB OSC x SHAPE); pulse width x pulse-width modulation (PW MOD x PULSE WIDTH); noise (NOISE)
- Vibrato depth (VIB DEPTH) x VIBRATO
- Filter: high pass (HPF) and low pass filter (LPF) and their ENV AMOUNT and MOD controls
- Resonance (RES) and modulation (MOD) of resonance
- Envelope for Amplitude (ENV AMP): attack, decay, sustain, release
- Envelope for Filter (ENV FILTER): attack, decay, sustain, release
- Volume

If that seems a bit confusing, don't worry about it! While it seems technical, these are all still controls that you should just play around with and see what effect they have. Just experiment and have fun! You can always switch back to the core synth controls.

Visit our [Studio Tutorials playlist](#) for an Advanced Synth video to come.

FAQ

What am I supposed to do in the game?

FRACT is about figuring out a world – so part of that is taking in your surroundings, exploring the environment, and trying to decode what happened here. Part of the puzzle is trying to figure out where to go and what to do next.

I'm stuck on a puzzle. How can I get some hints?

You can ask other players on our FRACT forums in the General Discussion board.

I love the music in the game, is there a soundtrack?

There is a FRACT Original Soundtrack (OST) by our musical collaborator Mogi Grumbles available at mogigrumbles.bandcamp.com.

I just want to play around in the Studio, how do I do that?

You can unlock the Studio through the Studio menu, which will unlock all the tools in the Studio without having to unlock them in the World.

Where do I find the songs I made in the game?

You can find songs, synth presets, and recordings in the FRACT folder, which you can open through the Studio menu.

Am I allowed to use music that I make in the FRACT studio for commercial use (eg. monetized YouTube videos, selling exported FRACT studio songs on services like Bandcamp)?

Yes, you are allowed to use the music exported or created within the game for commercial use – but only what is created in the FRACT Studio. In-game samples or files cannot be extracted for commercial use.

I want to put in my own custom beats. Can I do this?

Yes, you can. We'll put up a tutorial and/or instructions on the forum soon.

I'm having technical issues. How do I get help?

You can email fracthelp@gmail.com, or ask on the [FRACT forums](#).

I'm getting some strange audio glitches. What should I do?

You can try the STABILIZE AUDIO button in the Game menu. This can help with certain systems.

Do you plan on having a Linux version?

Yes, we do! After release, we hope.

Are you going to support Oculus?

We would love to have VR support, it's on our wishlist post-release.