
Frets On Fire X Documentation

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FoFiX is a highly customizable rhythm game supporting many modes of guitar, bass, drum, and vocal gameplay for up to four players. It is the continuation of a long succession of modifications to the original Frets on Fire by Unreal Voodoo.

1.1 Quickstart

1.1.1 Features

Frets On Fire

The original game Frets On Fire provides:

- rhythm game similar to Guitar Hero & Rock Band (with guitar, bass, drums)
- open source game
- multi-OS game
- multi language game
- native MIDI instrument input / controller support
- customizable songs (free song formats, MIDI, OGG)
- key settings
- Jurgen bot (computer player, skilled at guitar, bass and drums)
- support uploading scores
- support for solos (guitar, bass and drums)

You can play with your keyboard, or other controllers.

FoFiX

FoFix provides some other features, in addition of FoF ones:

- customizable graphics (themes, necks)
- multiplayer support

- starpower / overdrive (Rock Band term) (x2 multiplier)
- bass groove (x4, x5, x6 multipliers with a bass)
- killswitch (whammy)
- customizable Hammer-on / Pull-off (called ho/po)
- support for separate song, guitar, bass and drum audio tracks

1.1.2 Installation

From a package

Here is a list of some packages available for Unix distributions.

From sources

- Get the [latest release](#) or [sources](#)
- **install dependencies:**
 - **OS specific dependencies:**
 - * *Windows*
 - * *Unix*
 - Python dependencies: `pip install -r requirements.txt`
 - **optional dependencies:**
 - * `pyopengl-accelerate`: this will make PyOpenGL go a good bit faster
 - * `pyaudio`: this provides support for microphone input, which is required for vocal play
 - * `gettext`: for translations
- compile native modules:

```
python setup.py build_ext --inplace --force
```

Windows

Only 32 bit Python is supported

Install the following dependencies:

- `pyWin32`
- `win32 dependency pack` (to unzip into the `win32` directory)

Unix

Install the following dependencies:

- a C++ compiler
- Python 2.7

- OpenGL
- ffmpeg
- pkg-config
- python's development headers
- and: GLU, GLib, SDL, SDL_mixer, libogg, libvorbisfile, libtheora, libsoundtouch, libswscale (part of ffmpeg) development headers.

1.1.3 Quickstart

Prepare songs

- Songs folder: `data/songs/`.
- Tutorials folder: `data/tutorials/`.

Some tutorials are already included:

- *Drum Rolls Practice*, by Bluedude426
- *Drum Test Song*, by Heka
- *FoF tutorial*, by Jurgen bot

Some songs are already included:

- *Bang Bang, Mystery Man*, by Mary Jo feat. Tommi Inkila
- *Defy The Machine*, by Tommi Inkila
- *This Week I've Been Mostly Playing Guitar*, by Tommi Inkila

To find other songs, go to the [wiki forum](#) or frets them.

Prepare themes

Themes folder: `data/themes`.

Some themes are already included:

- MegaLight (default)
- MegaLight GH3
- MegaLight V4
- Uberlight

To find other themes, go to the [forum](#) or create them.

Start the game

To start the game, run the following command:

```
python FoFix.py
```

This will create a fofix folder with some configurations and logs:

- in Windows: `%AppData%\fofix`

- in GNU/Linux: `~/ .fofix`
- in Mac OS X: `~/Library/Preferences.`

Then, you can choose a mode and fret!

1.1.4 How to play

Goal

The goal is to get points by hitting notes.

Press and hold the appropriate frets when notes appear and tap the pick button when the notes hit the row of keys at the bottom of the screen. Hold the frets down for long notes.

Keys

Thoses keys are default keys for a keyboard (the same as [FretsOnFire](#)) and can be changed.

In the menu

- **Arrow keys:** change menu selection
- **Enter:** validate
- **Escape:** cancel.

In the game

- **F1 - F5:** rets one to five
- **F6 - F10:** solo frets one to five
- **Enter / Shift right:** pick
- **Page down:** star power
- **Page up:** whammy
- **Alt + Enter:** switch to fullscreen (this will restart the game on Windows).

2.1 User guide

2.1.1 Songs

Songs folder: *data/songs/*.

Song files

A song is a folder which contains multiple files:

- *song.ini* (config)
- *song.ogg*
- *script.txt* (lyrics)
- *notes.mid*
- *acoustic.ogg*
- *bass.ogg*
- *crowd.ogg*
- *drums.ogg*
- *guitar.ogg*
- *piano.ogg*
- *rhythm.ogg*
- *vocals.ogg*
- *preview.ogg*
- *video.ogg* (background video)

- [label.png](#)

Create a song

Tools

Some tools will help you creating a song for FoFiX:

- [EOF - unofficial guide](#)

INI file

The file `song.ini` is the configuration file for the song. Here is its contents.

- Header section: `[song]`
- Format: `key = value`

Key	Value type	FoFiX	Description
<code>album</code>	<code>str</code>	✓	Album name
<code>artist</code>	<code>str</code>	✓	Artist who made the song
<code>background</code>	<code>str</code>		(Performous) Filename of image to display in the background during gameplay
<code>cassettecolor</code>	<code>hexcolors</code>	✓	Color of the cassette tape
<code>count</code>	<code>int</code>	✓	How many times played
<code>cover</code>	<code>str</code>		(Performous) Filename of cover image
<code>delay</code>	<code>int</code>	✓	Delays the notes, negative values works as well (in milliseconds)
<code>diff_band</code>	<code>Value</code>	✓	Set the difficulty for band
<code>diff_bass</code>	<code>Value</code>	✓	Set the difficulty for bass
<code>diff_drums</code>	<code>Value</code>	✓	Set the difficulty for drums
<code>diff_guitar</code>	<code>Value</code>	✓	Set the difficulty for guitar
<code>frets</code>	<code>str</code>	✓	Name of the maker / converter of the song
<code>genre</code>	<code>str</code>	✓	Genre of music
<code>hopofreq</code>	<code>Value</code>	✓	HOPO Frequency setting, requires the user setting “Song HOPO Freq” be set to
<code>icon</code>	<code>Value</code>	✓	Sets icon to use for song title
<code>loading_phrase</code>	<code>str</code>	✓	Text that is displayed when song is loading
<code>name</code>	<code>str</code>	✓	Song title
<code>preview_start_time</code>	<code>int</code>		(Performous) Preview start time (in milliseconds)
<code>scores</code>	<code>str</code>	✓	Generated: encoded highscores
<code>scores_ext</code>	<code>str</code>	✓	Generated: encoded score info
<code>tags</code>	<code>Value</code>	✓	Indicates a cover version so that “As Made famous by [artist]” is displayed
<code>tutorial</code>	<code>boolean</code>	✓	Hide the song in quickplay if it is the tutorial song
<code>unlock_id</code>	<code>Tier</code>	✓	Career mode: indicates the tier it belongs to
<code>unlock_require</code>	<code>Tier</code>	✓	Career mode: indicates the tier needed to be finished for the song to be unlocked
<code>unlock_text</code>	<code>str</code>	✓	Career mode: text that is displayed when the song is locked
<code>version</code>	<code>int</code>	✓	Version of the song
<code>video</code>	<code>str</code>	✓	Video filename relative to song folder
<code>video_end_time</code>	<code>int</code>	✓	Video end time (in milliseconds)
<code>video_start_time</code>	<code>int</code>	✓	Video start time (in milliseconds)
<code>year</code>	<code>int</code>	✓	Year in which the song has been published / made

Value types:

- `boolean`: 0 or 1

- hexcolors: hexadecimal number
- int: a number
- str: text
- Tier: the song id
- **Value:**
 - icon values: rb1, rb2, rbdlc, rbtpk, gh1, gh2, gh2dlc, gh3, gh3dlc, gh80s, gha, ghm, ph1, ph2, ph3, ph4, phm
 - tag value: cover
 - diff_XXX values: 0 - 6
 - **hopofreq values: 0 - 5**
 - * 0: "Least"
 - * 1: "Less"
 - * 2: "Normal"
 - * 3: "More"
 - * 4: "Even more"
 - * 5: "Most"

Compatibility

Thanks to open source formats, FoFiX songs are compatible with many softwares like:

- PhaseShift
- Performous

2.1.2 Make your own careers

FoFiX supports the career mode: unlock songs only if you success in previous ones!

Songs

For each song you want to put in your career pack, in `song.ini`:

1. Add the key `unlock_id`
2. Put the id of the pack for its value (ex: `unlock_id = gh3_1` for the tier 1 of the GH3 pack)
3. For encore songs of one tier, add the `enc` suffix to the id value (ex: `gh3_1enc`)
4. To order songs, add a number for your song to the id value (ex: `gh3_1.1`)
5. Add the key `unlock_require` with the id of the song you need to do as a value. If the song does not need to be unlocked, let the value empty
6. Add the key `unlock_text` to display a text when the song is still locked.

Example:

```
[song]
...
unlock_id = gh3_2
unlock_required = gh3_1
unlock_text = Finish the 2nd tier of the GH3 pack!
```

Regroup song folders you want in your career pack in a folder (folder name ex: gh3).

INI file

Make a `titles.ini` file in your career pack folder. Here is an example of its content:

- **section [titles]:**
 - key: sections
 - value: each tear section names, spaced by a space
 - example: sections = tier1 tier2 bonus
- **sections [tearX] (one for each section defined before):**
 - key: name
 - value: the displayed name for the tier
 - example: name = 1. My first tear
 - key: unlock_id
 - value: the id of the tier (the same you put in `song.ini`)
 - example: unlock_id = gh3_1

Example:

```
[titles]
sections = tier1 tier2

[tear1]
name = 1. First tear
unlock_id = gh3_1

[tear2]
name = 2. Second tear
unlock_id = gh3_2
```

2.1.3 Themes

Additional themes

You can find a list of additional themes for FoFiX on the [forum](#).

Installation

- Extract the new theme
- move the theme's folder into `data/themes/`.

Settings

- Name of the settings file: *theme.ini*
- Header section: *[theme]*
- Format: *key = value*
- **Value types:**
 - int
 - float
 - hexcolor: hexadecimal number that starts with the # sign and has six digits (colors)
 - boolean: True or False
 - str
 - comma-separated: comma-separated value list
- **Fonts values:**
 - bigFont
 - font
 - loadingFont
 - pauseFont
 - scoreFont
 - shadowFont
 - songFont
 - songListFont
 - streakFont
 - streakFont2

Menu systems

General

Key	Value type	Default value	Description
<code>background_color</code>	hexcolor	#000000	Color of the background screen
<code>base_color</code>	hexcolor	#FFFFFF	Default unselected text color
<code>selected_color</code>	hexcolor	#FFBF00	Default selected text color
<code>versiontag</code>	boolean	True	Version tag in menus (<code>versiontag.png</code>)
<code>versiontagposX</code>	float	0.5	X position of version tag
<code>versiontagposY</code>	float	0.5	Y position of version tag

Main menu

Key	Value type	Default value	Description
menu_x	float	0.665	X position of main menu text
menu_y	float	0.842	y position of main menu text
main_menu_scale	float	0.5	Size of main menu text (maintext.png)
main_menu_vspacing	float	0.09	Space between main menu items
use_solo_submenu	boolean	None	Menu system you want in your game
rbmenu	boolean	False	Whether to scroll main menu items in

use_solo_submenu values:

- True: Rock Band-like “Solo” submenu
- False: Guitar Hero-like “Career” and “Quickplay” submenus

Graphical submenus

Submenus are named like that: XXXtext# where:

- XXX: name of the submenu
- #: number of options on that submenu

and for each submenu, it should be an image named XXXtext#.

Key	Value type	Default value	Description
XXXtext#	#comma-separated floats	.40, .35, .46, .045	Graphical submenu of the appropriate name: X position, Y position, size, space between items

Options menu

Key	Value type	Default value	Description
menu_tip_text_display	boolean	False	Display a menu text help in options menu
menu_tip_text_y	float	0.7	Y position of the help text (if enabled)
menu_tip_text_font	str	font	Font of the help text (if enabled)
menu_tip_text_scale	float	0.002	Scale size of help text (if enabled)
menu_tip_text_color	hexcolor	#FFFFFF	Text color of the help text (if enabled)
menu_tip_text_scroll_mode	int	0	Animation when an explanation is too big to show
menu_tip_text_scroll_space	float	0.25	Hw much space to put between the end and the beginning (if menu_tip_text_scroll_mode is 0)
opt_bkg_size	comma-separated float	0.5, 0.5, 1.0, 1.0	Background of the option menu: X position, Y position, X scaling, Y scaling
opt_text_x	float	0.38	X position of the option menu text
opt_text_y	float	0.15	Y position of the option menu text
opt_text_color	hexcolor	#FFFFFF	Color of other menu items
opt_selected_color	hexcolor	#FFBF00	Color of the currently-selected menu option

`menu_tip_text_scroll_mode` values:

- 0: constant scroll
- 1: back and forth

Game setup

Controller select screen

Key	Value type	Default value	Description
<code>control_activate_x</code>	float	0.645	X position of the list of available controls
<code>control_activate_y</code>	float	0.18	Y position of the list of available controls
<code>control_activate_size</code>	float	0.0018	Size of the available control text
<code>control_activate_select_x</code>	float	0.5	X position of the select image on the list of available controls
<code>control_activate_part_x</code>	float	0.41	X position of the part images shown on the list of available controls
<code>control_activate_part_size</code>	float	22.0	Width (in rendered pixels) of the part images on the list of available controls
<code>control_activate_space</code>	float	0.045	Space between each available control
<code>control_activate_font</code>	str	font	The available controller font
<code>control_description_x</code>	float	0.5	X position of the information text
<code>control_description_y</code>	float	0.13	Y position of the information text
<code>control_description_size</code>	float	0.002	Size of the information text
<code>control_description_font</code>	str	font	The information text font
<code>control_check_x</code>	float	0.16	X position of the first confirmed control
<code>control_check_y</code>	float	0.26	Y position of the first confirmed control
<code>control_check_text_y</code>	float	0.61	Y position of names of confirmed controls
<code>control_check_part_size</code>	float	2.8	Number of times larger than <code>control_activate_part_size</code> confirmed parts should be
<code>control_check_space</code>	float	0.23	Amount of space between each confirmed controller
<code>control_check_scale</code>	float	0.0018	Size of names of confirmed controls
<code>control_check_font</code>	str	font	Font of names of confirmed controls

Player lobby

Key	Value type	Default value	Description
lobby_mode	int	0	Lobby mode
lobby_font_color	hexcolor	#FFFFFF	Color of player names
lobby_select_color	hexcolor	#FFBF00	Color of the name of the selected player (if not using a select image)
lobby_disable_color	hexcolor	#666666	Color of already-selected player names
lobby_info_color	hexcolor	#FFFFFF	Color of the information text about the currently-selected player
lobby_select_x	float	0.9	X position of the player list
lobby_select_y	float	0.32	Y position of the player list
lobby_select_scale	float	0.0018	Size of the player list font
lobby_select_font	str	loading-Font	Font of the player list
lobby_select_space	float	0.04	Space between names in the player list
lobby_select_length	int	5	Number of items to show at a time in the player list
lobby_preview_x	float	0.3	X position of the selected player's preview info
lobby_preview_y	float	0.0	Y offset of the selected player's preview info
lobby_preview_spacing	float	0.04	Space between lines in the selected player's preview info
lobby_avatar_x	float	0.7	(Lobby mode 1) X position of the selected player's avatar
lobby_avatar_y	float	0.75	(Lobby mode 1) Y position of the selected player's avatar
lobby_avatar_scale	float	1.0	(Lobby mode 1) Size of the selected player's avatar
lobby_select_image_x	float	0.8	X position of the image behind the selected item, if available
lobby_select_image_y	float	0.355	Y position of the image behind the selected item, if available
lobby_title_x	float	0.5	X position of the "Choose Your Character" text / image
lobby_title_y	float	0.24	Y position of the "Choose Your Character" text / image
lobby_title_character_x	float	0.26	X position of the "Player #" text
lobby_title_character_y	float	0.24	Y position of the "Player #" text
lobby_title_scale	float	0.0024	Size of the title font
lobby_title_color	hexcolor	#FFFFFF	Color of the "Choose Your Character" text, if not using an image
lobby_player_color	hexcolor	#FFFFFF	Color of the "Player #" text
lobby_title_font	str	font	Font of the title text

lobby_mode values:

- 0: locked avatar
- 1: floating avatar

Player creation

Key	Value type	Default value	Description
character_create_font_color	hexcolor	#FFFFFF	Color of the menu options
character_create_select_color	hexcolor	#FFBF00	Color of the currently-selected menu item
character_create_help_color	hexcolor	#FFFFFF	Color of the menu option help information
character_create_help_y	float	.73	Y position of the menu option help information
character_create_x	float	0.25	X position of menu option names
character_create_option_x	float	0.75	X position of selectable option values
character_create_y	float	0.15	Y position of the first menu item
character_create_scale	float	.0018	Size of the text
character_create_space	float	.045	Space between menu items
avatar_select_text_x	float	.44	X position of the “Choose Your Avatar” text
avatar_select_text_y	float	.16	Y position of the “Choose Your Avatar” text
avatar_select_text_scale	float	.0027	Size of the “Choose Your Avatar” text
avatar_select_font	str	font	Font used for the “Choose Your Avatar” text
avatar_select_wheel_y	float	0.0	Y offset of the avatar choice wheel
avatar_select_avatar_x	float	.667	X position of the currently-selected avatar
avatar_select_avatar_y	float	.5	Y position of the currently-selected avatar

Song selection list / CD list

Key	Value type	Default value	Description
artist_selected_color	hexcolor	#4080FF	Selected artist color
artist_text_color	hexcolor	#4080FF	Artist text color
career_title_color	hexcolor	#000000	Career title color
library_selected_color	hexcolor	#FFBF00	Selected library color
library_text_color	hexcolor	#FFFFFF	Library text color
setlistguidebuttonspox	float	.408	Setlist guide buttons image ‘X’ position
setlistguidebuttonspoy	float	.0322	Setlist guide buttons image ‘Y’ position
setlistguidebuttonsscalex	float	.29	Setlist guide buttons image scaling of ‘X’ size
setlistguidebuttonsscaley	float	.308	Setlist guide buttons image scaling of ‘Y’ size
setlistpreviewbuttonpox	float	.5	Preview buttons X position
setlistpreviewbuttonpoy	float	.5	Preview buttons Y position
setlistpreviewbuttonscalex	float	.5	Preview buttons scaling of ‘X’ size
setlistpreviewbuttonscaley	float	.5	Preview buttons scaling of ‘Y’ size
song_cd_x	int	0	X position of the CD
song_cdscore_x	float	.6	X position of the CD score
song_list_display	int	1	Sets the songlist view
song_list_x	float	.15	X position of the list
song_listcd_cd_x	float		‘CD’ X position in listed songlist view
song_listcd_cd_y	float		‘CD’ Y position in listed songlist view
song_listcd_list_x	float		‘LIST’ X position in listed songlist view
song_listcd_score_x	float		‘SCORE’ X position in listed songlist view

Table 2 – continued from previous page

Key	Value type	Default value	Description
song_listcd_score_y	float		'SCORE' Y position in listcd songlist view
song_listscore_x	float	.8	X position of the list score
song_name_selected_color	hexcolor	#FFBF00	Selected song name color
song_name_text_color	hexcolor	#FFFFFF	Text song name color
song_rb2_artist_color	hexcolor		Color of the Rock Band 2 artist name
song_rb2_diff_color	hexcolor		Color of the Rock Band 2 Difficulty level name
song_rb2_name_color	hexcolor		Color of the Rock Band name
song_rb2_name_selected_color	hexcolor		Color of the Rock Band 2 selected name
songback	boolean	True	Scroll the song selection background image. If your ima
songlist_score_color	hexcolor	#FFFFFF	Color of the song list score
songlistcd_score_color	hexcolor		Scores color for both CD and List / CD mode

- Positions should be between 0 and 1
- song_cd_x values: between 0 and 5
- **song_list_display** values:
 - 0: CD / Cassettes
 - 1: list
 - 2: list / CD
 - 3: RB2
 - 4: Auto (should not be used)

Difficulty, intruments, practice select screen

Key	Value type	Default value	Description
song_select_submenu_x	float	0	X position of the submenu text
song_select_submenu_y	float	0	Y position of the submenu text
song_select_submenu_offset	int	2 lines	Add offset lines: has <i>no</i> effect if song_select_submenu_x and song_select_submenu_y aren't used
song_select_submenu_offset	int	2 spaces	Add offset lines: has <i>no</i> effect if song_select_submenu_x and song_select_submenu_y aren't used

Loading phrase screen

Key	Value type	Default value	Description
loading_font_scale	float	0.0015	Loading phrase font scale
loading_line_spacing	float	1.0	Amount of line spacing. Default is 1 if not used
loading_phrase	str	How good are You?	Put an underscore between each phrase for multiple phrases
loading_right_margin	float	1.0	X offset from right side of the screen
loading_text_color	hexcolor	#FFFFFF	Loading phrase color
loading_X	float	.5	X position of phrase
loading_Y	float	.595	Y position of phrase
shadowoffsetx	float	.0022	X offset to the loading screen font's shadow
shadowoffsety	float	.0005	Y offset to the loading screen font's shadow

In game

All instruments

Key	Value type	Default value	Description
display_all_grey_stars	boolean	True	True: all 5 stars shown at all times. False: Only shows the grey star you're currently working on
ingame_stats_color	hex-color	#000000	Color for the In Game stats
song_info_display_scale	float	0.0020	Size of the song info shown at gameplay countdown
song_info_display_x	float	0.05	X position of song info display during countdown
song_info_display_y	float	0.05	Y position of song info display during countdown
star_fillup_center_x	int	139	X position of the center of the Star Fillup
star_fillup_center_y	int	151	Y position of the center of the Star Fillup
star_fillup_inner_radius	int	121	Inner radius
star_fillup_outer_radius	int	138	Outer radius
star_fillup_color	hex-color	#FFF25E	Color of the star fill up

Guitars and drums

Key	Value type	Default value	Description
fret0_color	hexcolor	#22FF22	Color for the 1st fret tail
fret1_color	hexcolor	#FF2222	Color for the 2nd fret tail
fret2_color	hexcolor	#FFFF22	Color for the 3rd fret tail
fret3_color	hexcolor	#3333FF	Color for the 4th fret tail
fret4_color	hexcolor	#FF9933	Color for the 5th fret tail
fretS_color	hexcolor	#4CB2E5	Color for all tails and notes when StarPower is active
fretK_color	hexcolor	#000000	Color for the killswitch tail FX (#000000: Fret Kill)
hopo_color	hexcolor	#EEEEEE	Color for HO/PO

Table 3 – continued from previous page

Key	Value type	Default value	Description
hopo_indicator_active_color	hexcolor	#0000FF	Active color of HO/PO indicator
hopo_indicator_inactive_color	hexcolor	#FF0000	Inactive color of HO/PO indicator
hopo_indicator_x	float	.950	X position of HOPO indicator
hopo_indicator_y	float	.950	Y position of HOPO indicator
jurgen_text_pos	comma-separated float	1,1,0.0004	Jurgen text position : scale, X position, Y position
mesh_color	hexcolor	#000000	Color of the mesh
neck_width	int	3	Width of the fret board
neck_length	int	9	Length of the fret board to be
obars_hscale	float	0.7	Overdrive bar width scale
obars_3dfill	boolean	False	Use perspective for overdrive_fill.p
opencolor	hexcolor	#FF8000	Color of the Bass drum note for 3d notes
pov_target_x	float	0.0	Point of view X target
pov_target_y	float	0.0	Point of view Y target
pov_target_z	float	3.7	Point of view Z target
pov_origin_x	float	0.0	Point of view X origin
pov_origin_y	float	2.9	Point of view Y origin
pov_origin_z	float	-2.9	Point of view Z origin
rbmenu	boolean	True	Turns on replicating the buttons scrolling up
rockmeter_score_color	hexcolor	#93c351	Color for the rockmeter score
Rotating 3d Starnotes	str	on	On / off
spot_color	hexcolor	#EEEEEE	Color of the spot
threeDspin	boolean	False	Turns 3d Starnote spinning off
twoDkeys	boolean	False	Use 2d / 3d keys
twoDnote	boolean	False	Use 2d / 3d notes
noterotdegrees	int	2	Degree to use for rotating the notes (texture)
noterot1	int	-2	Number of applied rotation degree to the 1st
noterot2	int	-1	Number of applied rotation degree to the 2nd
noterot3	int	0	Number of applied rotation degree to the 3rd
noterot4	int	1	Number of applied rotation degree to the 4th
noterot5	int	2	Number of applied rotation degree to the 5th

Vocals

Not implemented yet

Key	Value type	Default value	Description
vocal_meter_size	float	45.000	
vocal_meter_x	float	.25	
vocal_meter_y	float	.8	
vocal_mult_x	float	.28	
vocal_mult_y	float	.8	
vocal_power_x	float	.5	
vocal_power_y	float	.5	
vocal_fillup_center_x	int	139	
vocal_fillup_center_y	int	151	
vocal_fillup_in_radius	int	25	
vocal_fillup_out_radius	int	139	
vocal_fillup_color	hexcolor	#DFDFDE	
vocal_fillup_factor	float	300.000	
vocal_circular_fillup	boolean	True	
vocal_lane_size	float	.002	
vocal_glow_size	float	.012	
vocal_glow_fade	float	.6	
vocal_lane_color	hexcolor	#99FF80	
vocal_shadow_color	hexcolor	#CCFFBF	
vocal_glow_color	hexcolor	#33FF00	
vocal_lane_color_star	hexcolor	#FFFF80	
vocal_shadow_color_star	hexcolor	#FFFFBF	
vocal_glow_color_star	hexcolor	#FFF000	

Pause menu / Failed menu

Key	Value type	Default value	Description
careerfail_menu4	comma-separated float	.5, .51, .76, 0	Career Failed menu: X, Y positions, scaling size, line spacing between menu items (used with careerfail.png and careerfailtext4.png images, '4' in the name refers to the number of choices in the failed menu)
careerpause_menu5	comma-separated float	.5, .51, .76, .74	Career Pause menu: X, Y positions, scaling size, line spacing between menu items (used with careerpause.png and careerpausetext5.png images, '5' in the name refers to the number of items in the pause menu)
failtext3	comma-separated float	.5, .51, .76, 0	Failed menu: X, Y positions, scaling size, line spacing between menu items (used with fail.png and failtext3.png images, the '3' in the name refers to the number of choices in the failed menu)
fail_bkg	comma-separated float	0.5, 0.5, 1.0, 1.0	X, Y coordinates of failed menu: horizontal and vertical scaling (1.0: fit to screen)
fail_completed_color	hex-color	#FFFFFF	Color of the Fail / Completed text line
fail_selected_color	hex-color	#FFBF00	Color of the Fail / Completed selection
fail_text_x	float	generated	X position of the Fail menu background and text
fail_text_y	float	.47	Y position of the Fail menu background and text
fail_text_color	hex-color	#FFFFFF	Color of the Failed screen text
fail_song_name_x	float	.5	X position of fail menu 'Song Name' and "% completed"
fail_song_name_y	float	.35	Y position of fail menu 'Song Name' and "% completed"
pausetext10	comma-separated float	.5, .51, .76, .074	Pause menu: X, Y positions, scaling size, line spacing between menu items (used with pause.png and pausetext10.png images, '5' in the name refers to the number of items in the pause menu)
pause_bkg	comma-separated float	0.5, 0.5, 1.0, 1.0	X, Y coordinates of pause menu: horizontal and vertical scaling (1.0: fit to screen)
pause_selected_color	hex-color	#FFBF00	Color of the Pause menu's 'Selected'
pause_text_color	hex-color	#FFFFFF	Color of the Pause menu's 'Unselected'
pause_text_x	float	.3	X position of the text in the Pause menu
pause_text_y	float	.31	Y position of the text in the Pause menu
sub_menu_x	float	.38	X position of the difficult select screen & instrument select
sub_menu_y	float	.15	Y position of the difficult select screen & instrument select

Game result screen

Key	Value type	Default value	Description
crowd_loop_delay	integer	550	User setting for sounds/crowdcheers.ogg
result_cheats_color	hexcolor	#FFFFFF	Color of results cheats
result_cheats_info	comma-separated float	.5, .3, .002	X, Y positions and size of results cheats info
result_cheats_numbers	comma-separated float	.5, .35, .0015	X, Y positions and size of results cheats numbers
result_cheats_percent	comma-separated float	.45, .4, .0015	X, Y positions and size of the results cheats percent
result_cheats_score	comma-separated float	.75, .4, .0015	X, Y positions and size of the results cheats score
result_menu_x	float	.210	X position of the 'final text' on the results screen
result_menu_y	float	.210	Y position of the 'final text' on the results screen
result_score	comma-separated float	.5, .11, 0.0025	X, Y positions of the results score
result_song	comma-separated float	.05, .045, .002, #FFFFFF	X, Y positions of the song name
result_song_text	str	%s Finished!	%s is for the song name
result_star	comma-separated float	.5, .4, 0.15, 1.1	X, Y positions, scaling of the stars and space between stars
result_stats_accuracy	comma-separated float	.5, .61, 0.002, #FFFFFF	X, Y positions of the accuracy % value
result_stats_accuracy_text	str	Accuracy: %.1f%%	Accuracy in %
result_stats_diff	comma-separated float	.5, .55, 0.002, #FFFFFF	X, Y positions of the difficulty stats
result_stats_diff_text	str	Difficulty: %s	Difficulty text
result_stats_notes	comma-separated float	.5, .52, 0.002, #FFFFFF	X, Y positions of the notes hit value
result_stats_notes_text	str	%s Notes Hit	Number of hits
result_stats_part	comma-separated float	.5, .64, 0.002, #FFFFFF	X, Y positions of the results part
result_stats_part_text	str	Part: %s	Part of the song
result_stats_streak	comma-separated float	.5, .58, 0.002, #FFFFFF	X, Y positions of the streak value
result_stats_streak_text	str	Longest Streak: %s	Number of longest streak

2.1.4 Shaders

Definition

A shader is a small program, which affects every vertex and pixel of object. A shader is splitted in 2 parts:

- vertex shader: this one can transform any surface, for example, it can make neck wavy
- pixel (fragment) shader: it can change color of every pixel on the screen

How to create a shader

- Folder: `data/shaders/`
- Files:
 - `myshader.vert`: vertex shader, C-like code
 - `myshader.frag`: fragment shader, C-like code

2.1.5 Controllers

Do you own a Guitar Hero or Rock Band controller for the PS2, PS3, Wii or Xbox 360?

Are you wondering how to get it to work? Then you're at the right place!

Microsoft Windows

PS2

Works with any PS2 to USB adapter.

Only the whammy bar could not work: the guitar has no "analog" button.

PS3

Works out of the box.

Uses the standard joystick driver that is part of Windows.

Xbox 360

Works out of the box.

Driver included in Windows.

Wii

- Rock Band Wii instruments: work out of the box
- **Guitar Hero 3 / World Tour instruments: communicate with the Wiimote**
 - use a compatible [Bluetooth receiver](#)

- install *GlovePIE*
- connect your Wiimote to your computer via *GlovePIE*
- connect your Wiimote to your instrument.

GNU / Linux

PS2

Works with any PS2 to USB adapter.

PS3

Works out of the box.

Uses the standard USB HID joystick driver in the Linux kernel.

Xbox 360

Should work out of the box.

If not working, install the [Xbox Gamepad Driver](#).

Wii

- Guitar Hero 3 instruments: use [CWiid](#) as an interface
- Guitar Hero World Tour: see [fixes with CWidd](#).

Mac OS X

Xbox 360

Follow the [OS X driver guide](#).

3.1 Misc

3.1.1 Contributing to FoFiX

As an open source project, FoFiX welcomes contributions of many forms.

Bug reporting

Please use the [issue tracker on GitHub](#).

Be sure to include all relevant information (traceback, version, reproducing steps, ...).

Patches submission

Patches are welcome either as [pull requests on GitHub](#). Please avoid duplicated patches, and make small PR.

To avoid duplicated work:

- if there is no issue about your bug, create one
- tell people that you're working on a patch.

Here are some guidelines:

- fork the repo
- create a topic branch based on master:

```
git checkout -b my-topic-branch master
```

- hack
- write *logical unit commits following basic guidelines*

- push your branch:

```
git push origin my-topic-branch
```

- submit a [pull request](#) to master.

Then, your pull request (PR) will be reviewed. This could take several days, which is also good for maturity.

After your pull request is merged, do not forget to:

- remove your topic branch
- update your `master` branch with upstream version
- celebrate :).

Git Commit Guidelines

In order to make commit messages readable, they should follow some rules, based on *community standards*:

- separate subject from body with a blank line
- limit the subject line to 50 characters
- capitalize the subject line
- do not end the subject line with a period
- use the imperative mood in the subject line
- wrap the body at 72 characters
- use the body to explain what and why vs. how.

This will look like this:

```
Capitalized, short (50 chars or less) summary
```

```
More detailed explanatory text, if necessary. Wrap it to about 72
characters or so. In some contexts, the first line is treated as the
subject of an email and the rest of the text as the body. The blank
line separating the summary from the body is critical (unless you omit
the body entirely); tools like rebase can get confused if you run the
two together.
```

```
Write your commit message in the imperative: "Fix bug" and not "Fixed bug"
or "Fixes bug." This convention matches up with commit messages generated
by commands like git merge and git revert.
```

```
Further paragraphs come after blank lines.
```

- Bullet points are okay, too
- Typically a hyphen or asterisk is used for the bullet, preceded by a single space, with blank lines in between, but conventions vary here
- Use a hanging indent

```
Fix #1234
```

```
Ref #2345
```

You can test your commit with `gitlint` before pushing your code.

For more information about those community standards, take a look at:

- Tim Pope's [A Note About Git Commit Messages](#)
- Chris Beams's summary: [How to Write a Git Commit Message](#)
- Pro Git book: [Contributing to a Project](#)
- Wikipedia: [Atomic commit](#)
- Thoughtbot's [5 Useful Tips For A Better Commit Message](#).

Coding style

Since most of the code is written in Python, please, follow the [PEP 8](#).

Get in touch

You can also drop by the `#fofix` channel on `oftc.net` ([web interface](#)).

3.1.2 Translations

Structure

Here is the structure of translation directories:



- `data/po/messages.pot`: template for PO files
- `data/po/<lang>.po`: PO file which contains strings with their translations
- `data/translations/<lang>.mo`: generated MO file from its associated PO file

Manage the POT file

To create a new POT file:

```
find . -type f -name "*.py" | xgettext --sort-output -o data/po/messages.pot_
↪ -kN_ -k_ -f -
```

To update an existing POT file:

```
find . -type f -name "*.py" | xgettext -j --sort-output -o data/po/messages.  
↳pot -kN_ -k_ -f -
```

Add a language

To add a language you would like, you have several options.

1. Open an issue to request it: <https://github.com/fofix/fofix/issues/new>.
2. Ask for a new language on Transifex.
3. Make a pull request with the new PO file:

```
msginit --input=data/po/messages.pot --locale=<code> --output=data/po/  
↳<lang>.po
```

Translate

To translate some strings, you should use our [Transifex project](#). Please, feel free to join us :).

Note: Since there are a lot of strings to translate, it is easier using a web editor than using a local one like Poedit.

Note: Transifex is not the best choice for translations because it's not open source anymore, but:

- the community is still big
- the interface looks nice.

Other open source web editors could be used later, if Transifex is not great enough for us:

- [Launchpad](#)
 - [Zanata](#) (a project exists already, but is not used)
 - a self-hosted tool (Weblate, Pootle, ...).
-

3.1.3 Frequently Asked Questions

Star scoring

Based on accuracy: 95%+ is 5 stars, no matter if you have a 1x avg multiplier.

3.1.4 Release notes

4.0.0 (unreleased)

Stages:

- alpha1: 2010-11-27
- alpha2: 2011-09-30

Notes:

- Will break compatibility with FoFiX v3
- Themes:
 - added possibility to customize hitflames (location, rotation, whether or not black is auto removed from the images)
 - added possibility to customize the POV
 - added possibility to customize the fps display location
 - added possibility to customize the pause menu text style
 - added support for a neck which shows when the multiplier reaches “4x”
 - added support for solo sidebars
 - added theme settings for control over how the color of tails and flames behave with sp/od
 - implemented a separate hitflames animation image for when starpower/overdrive is active
 - made all notes be able to be animated
 - made almost all images optional (see the *Uberlight* theme)
 - moved tons of images to folders
 - removed `editor.png` from themes as its no longer of any use
 - renamed `backgrounds` folder to `stages`
 - render the main menu to plain text by default if `main_text.png` is not detected
 - rockmeter: added a new layer grouping system
 - rockmeter: added a new layer: circle layer (very handy for star fillup)
 - rockmeter: added new effects: scale, fade, animate
 - rockmeter: fixed some sliding effect issues
 - rockmeter: improved speed
 - *MLv4*: new theme
 - *ML GH3*: recreated the rockmeter with `rockmeter.ini`
 - *Uberlight*: cleaned up to be the absolute minimum allowed by the engin.
- Game:
 - cleaned up the code to simplify it
 - made the solo neck scroll in to the very end of the neck instead of stopping at the frets
 - simplified hitflames: any supported hitflame image can now be rendered at the same time
- Other:
 - changed default frame limit to 60 FPS
 - fixed a rotation bug in image rendering
 - fixed menu text, optionsPanel, and BRE/Solo frame scaling issues
 - implemented song specific loading screen images
 - shared more code between the guitar and drums

- added CMGL as a faster OpenGL binding
- added the `pypitch` module
- rename the option `uploadurl_w67_starpower` to `uploadurl` in `fofix.ini`

3.121 (2009-12-06)

Python version: > 2.6

- Increased performance
- A more precise and helpful error logging system
- Planning to cut support for Python 2.4 soon

3.120 (2009-09-22)

Stages:

- beta1: 2009-04-19
- beta2: 2009-06-28
- rc1: 2009-08-27

Over 170 issues were resolved by this latest version!

- Customizable AI difficulty
- Changed the hit window setting: in the “Mods, Cheats, and AI” section of the Settings menu, check your “Note Hit Window”. Most players will want “Normal”
- Simplified 3D rendering
- Added 3 and 4-player modes
- Added detailed options menu text
- Added “Vocals” difficulty
- Added Jurgen vocals
- Added player profiles
- Added controller profiles
- Added support for GH:WT xbox360 guitar solo frets
- Added more themeable settings
- Fixed Neck rendering
- Fixed RB Co-Op saving
- Fixed high scores
- Fixed translations
- Fixed setlist sorting
- Fixed issues related to Animated Hitflames
- Fixed issues related to Big Rock Endings
- Fixed issues related to Cache

- Fixed issues related to Drums
- Fixed issues related to Practice Mode
- Fixed issues related to Rendering
- Fixed issues appearing when pausing then unpausing the game
- Fixed Scoring issues: note hits, note streaks and accuracy
- Fixed various game crash or freeze (BRE, neck selection, overdrive, etc.)
- Fixed face-off battle note streaks
- Fixed MacOS X paths for configuration files and logs
- Added experimental shaders support: requires a videocard implementing OpenGL ≥ 2.0 and pyopengl 3.x
- PyOpenGL 2.0.1.x does not support shaders. Shaders support was introduced in 2.0.2.x. Thus, to get shaders under GNU/Linux, you'll have to use the python2.5 build

3.100 (2009-02-21)

Stages:

- beta1: 2009-01-12
- beta2: 2009-01-18
- beta3: 2009-01-25
- beta4: 2009-02-07
- rc1: 2009-02-08

Notes:

- Guitar picks will now repeat for menu and songlist scrolling
- Lyrics will no longer show during the song countdown
- No more double-and-triple song loading cycles
- Very basic Big Rock Ending support
- Drum Fills
- MIDI instrument input support
- Whammy pitch-bending support
- Basic 3D note.dae texturing support
- Songlist metadata caching
- New tutorial song : a drum roll practice tutorial created by venom426.

3.030 (2008-11-19)

Stages:

- beta2: 2008-11-14
- beta1: 2008-11-07

Notes:

- Fixed issue 165
- The View thread timing: should result in major smoothness and stability improvements as well as mostly fixing[?] the double-loading screen issue)
- Removed the pyAmanith dependency
- Lighter the full package

3.025 (2008-10-30)

3.021 (2008-10-25)

Songlist Optimization

3.020 (2008-10-24)

- Fixed game freeze / hang caused by “Accuracy Words Pos” = “Center”
- Used rubjonny’s FoF icon instead of the old style icon
- Fixed issue: where the song time countdown, once it reaches zero, starts counting back from 60 while the music track finishes (if it finishes after the midi, as a lot of songs do)
- Fixed issue: strumming a HOPO before pulling off to another doesn’t work correctly
- Added evilynux’s Timer.py patch that greatly reduces CPU usage in menus and in game
- Added basic score uploading feedback - the game will now tell you if the upload succeeded or failed
- Added logic to display resulting rank for your uploaded top score in the world chart: <http://i36.tinypic.com/2cxzqyv.jpg>
- Fixed HOPO markings on notes extremely close together, examples are found all over the Hell Freezes Over version of Hotel California
- Replaced all GuitarScene realtime string concatenation (slow) with % formatting (fast) – only during gameplay (initialization concatenation is still present)
- Rewrote both Guitar and Drum starpower marking logic to occur only at initialization, not every time through the renderNotes() functions
- Rewrote starpower marking logic to only mark the actual last note as the starpower “final” instead of the entire last chord (this fixes the double drum starpower rewards)
- Prevented HOPO debug text from being rendered for drum players - Added optional support for theme-based failsound.ogg from worldrave’s GH3 back and failed sounds - Added optional support for random choice between theme-based back1.ogg and back2.ogg instead of just out.ogg
- Wrote logic to stagger-mix crowd cheering sound files in a loop to create an endless cheering effect for the GameResults screen (a la GH2) if crowdcheers.ogg exists in the current theme - New setting under “Audio Options” -> “Results Cheer Loop” (default On) - will mix and endless loop of cheers during game results scoring - New setting under “Audio Options” -> “Cheer Loop Delay” (default 550) - this is the adjustable delay between mixing of a fresh crowd cheer into the loop (careful!)
- Ensured that if crowdcheers.ogg is not found, that starpower.ogg is not mixed twice whenever activating starpower
- Added slashy666’s updated pause.png and editor.png to Rock Band 1 theme
- Added logic to catch a crash/hang when the game attempts to improperly delete a texture

3.017 (2008-10-17)

Fail Detection Fix

- Rewrote fail detection logic in GuitarScene.run() function to not be hardcoded for 2 players, to be compatible with future expansion

3.016 (2008-10-16)

Stages:

- alpha: 2008-10-16

Notes: Logging & Debugging Enhancements

- Enhanced “error” logfile entries to produce a helpful trace output like that created when running from sources and using an immediate / debug window (no code shown, just classes / functions / line numbers)
- fretsonfire.log file will now be created in the game folder you are running from (will appear in the same place fretsonfire.ini is created)
- Recompiled library.zip and FretsOnFire.exe from sources
- Updated GameEngine.versionstring to the correct value

3.015 (2008-10-15)

- Fixed pause layering during song countdown
- Ensured the accuracy indicator from the last note hit is not still displayed after a restart
- Ensured that just letting an entire guitar solo go by without attempting to hit any notes does not result in a 100% perfect solo
- Moved spinning star rotation angle calculation / update from Guitar render() function to run() function
- Added logic to catch when a drum chord (which counts individual notes for streak) skips a “note streak” threshold (like, from 99 to 101) and display the appropriate streak notification
- Added logic to flash the overdrive strings just before You Rock for Rock Band based themes

3.1.5 Licenses

Source code

License: GPLv2 or (at your option) any later version, see the COPYING file and notice in source code.

Fonts

License: (c) Red Hat, Inc

Files:

- data/*.ttf
- data/themes/UberLight/*.ttf
- data/themes/MegaLight*/*.ttf

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CHAPTER 4

Indices and tables

- `genindex`
- `modindex`
- `search`