



The Kasina Effect

A MuLab preset for the creation of SpectraStrobe sessions



Introduction

The Kasina Effect (TKE) is a preset/plugin created using MuLab Mux. Mux is a modular development system allowing MuLab users to create their own instruments and effects.

TKE performs several distinct functions:

1. Generation of SpectraStrobe Reference signals.
2. Creation of independent left/right isochronic beats using internal tone.
3. Conversion of audio to left/right/R/G/B SS light control signals.
4. Creation of left/right/R/G/B SS light control signals from internal beats (light flashing).

Multiple copies of TKE can be loaded into different Racks, permitting extremely complex color rendering (note that the Reference must be turned OFF on all but one TKE).

Installation

Download the appropriate version of MuLab Free from mutools.com (Windows 32- or 64-bit, Mac).

Unzip the download package to a suitable location - C:/MuLab is a good choice.

Download TKE4.mux and TKE.wav from mindplacesupport.com and move them to [Your MuLab Folder]/User/Library/Mux/Effects/Devices.

Quick Start

With Kasina connected and set to USB, launch MuLab and click New.

Click MuLab/Audio Setup (stop audio engine) and ensure that Kasina is selected.

Click the + below the Basic Synth track to add a new track - select audio, then a music file of your own. The file will need to be in WAV format. This will also create a new Rack corresponding in name and color to the new track. Click in the top slot and navigate through MuLab/Users/Effects/etc. to choose TKE4. Right-clicking on TKE4 in the rack slot will open its control dialog.

Clicking Play should result in the audio being heard through Kasina. If not, first check your USB connection (USB indicator top right of Kasina display) and then click the MuLab button top left and choose Audio Setup, yes to stop the engine and then choose the Kasina device.

Most functions have a left/right control and a master control - the master controls are arranged along the bottom of the TKE window. Beat/modulation frequencies are in the range 0.01-25Hz (delta to high beta).

To use the Isochronic Audio Beat simply adjust the beat frequency, turn up the volume and adjust pitch.

To apply lights to incoming audio, either an audio file as above, or a sequence played through an instrument, adjust the Bright controls and master Brightness as required. Delay creates some interesting phase and interference effects.

To use light flashing, simply turn up the Flash Bright and master Brightness as required.

MuLab Basics

MuLab functions by directing output from Tracks to the Instruments and/or Effects in Racks.

An audio file can be imported into a track by using Session/Import Audio File or a new audio track created by clicking the + below the last Track. That will create a new Track and an associated Rack.

A sequence can be played through an Instrument, such as the Basic Synth. The Instrument can also be played directly with the Virtual Keyboard.

A Track is added by clicking the + button below the last existing Track. A Sequence or Audio File is created by double-clicking/dragging in the Track area. Double-clicking the Track content enters either the Composer or Audio Editor depending on Track type.

Any Track can have its Target Module (Rack or other MuLab component) changed by right-clicking the Track's name at the left of the track itself.

Instruments and Effects have their control panels opened by double-clicking the device in the Rack or clicking the arrow alongside the name.

Any Rack can have Sends. Sends allow part of a Rack's signal to be directed to another Rack. This can be useful for placing a single copy of TKE and having multiple Tracks feeding it.

The settings of almost any MuLab control, including any Preset control or Deep Editor Module can be automated. This is achieved by using Automation Tracks. An Automation Track is added to a Track by right-clicking its name and selecting Add Automation Sub Track. You will be asked for an Automation Parameter. The first few offered relate to the target Rack, with all other parameters relating to the Devices in the Rack able to be expanded out below. For example, if TKE is in the first slot of a Rack, the Rack will be called TKE Rack, and the first automation parameters will be Gain, Stereo Panning, Stereo Width and Mute. Below that TKE itself can be expanded to expose, first, all of the control panel controls, and then access to all other modules. The Automation Track is created just the same as an Audio or Instrument Track - double-click/drag to create the Track content then double-click that to enter the Automation Editor. Clicking, double-clicking and dragging allow nodes to be placed/moved. The node in the centre of each line segment accesses a curve control whereby the shape of each transition can be extensively modified.

Many Instruments and Effects are included with MuLab.

There are also many VST plugins available to further extend functionality.

Note that MuLab Free supports 4 Tracks (MuLab UL is unlimited).

For full documentation click the MuLab button and choose Info.

TKE Controls

The controls are grouped by function and most are split into left and right channels.

At the bottom left are the Master controls - overall volume and brightness.

The group at the top left serves to remove any existing AudioStrobe or SpectraStrobe encoding from the source audio. The lower the frequency the more high sounds and encoding will be removed. Set to above 20kHz the source will be largely unchanged, so additional light control can be added to a pre-encoded track. Note that AudioStrobe is decoded into left/right green.

The Isochronic Audio Beat controls produces isochronic beeps at the pitch, rate and volume set. The orange/black buttons access the beat waveform to change the shape/impact of the beat while the orange/white buttons access the pitch waveform to change the timbre of the sound.

The Light Control panels consist of four sub-groups. At the top there is Audio Bright which determines how bright the lights should be relative to the volume of the source audio.

Beneath that the Audio Band filters control which range of sounds will trigger each color (Audio Band), how sharply that band should be defined (Band Intensity) and how much unfiltered audio should also be allowed to control the light (Band Bypass).

Next there is an Audio Delay which holds back the signal from that band, allowing interesting interference and phase effects to be incorporated into the lightshow.

Finally there are the light flashing controls. These flash the lights independently of the audio. Set rate and brightness as required. The Red, Green and Blue buttons access the flash waveform for each color. Changing the flash waveform can have a dramatic effect on the appearance of the lightshow.

At the bottom centre is a button marked Ref On/Off. SpectraStrobe requires a specific reference signal in order to operate. In its absence the Kasina will act as an AudioStrobe decoder. Only one such signal is permissible. In order to use multiple copies of TKE, maybe in different racks applying different colors to different instruments or suchlike, all but one Reference must be turned Off. Right click the button and select Toggle Process Off as required.

The easiest way to become familiar with the controls is to import a simple audio track and play it through TKE to the Kasina and just play around - no harm can be done and some surprising effects can be found.

For further information, visit the Kasina forum at mindplacesupport.com.

Enjoy!