# User Manual for OcGen Service

## Introduction

OcGen is a simple to use online music transcription service for the ocarina. It uses various pitch extraction and music analysis algorithms to do stuff

## Using the Service

The program currently supports mp3, wav, ogg and webm files, wwith a view to supporting more in the future. Transcribing is a simple matter of clicking the 'Upload' button, selecting your file, and clicking 'Submit'. Depending on the file size, this may take a few seconds. You will then be redirected to a PNG image of your tablature.

## Advanced Settings

### Transcription Window

This setting allows you to select a time window to transcribe. This is used when you only want to transcribe a section of a file, for example, skipping a guitar solo that would be difficult to play/transcribe with an ocarina.

### Instrument Type

The instrument type is the list of instruments the serive can transcribe tabs for. At the moment I only support 12-hole and 6-hole ocarinas, but this my be expanded in the future.

### Pitch Detection Algorithms

This allows you to choose which pitch detection algorithm to use. They vary significantly in implementation, runtime, and often results. It's hard to predict which one will give the best results for a given file, so I encourage you to try them all. More information on these algorithms can be found here or below.

- **Yin** is the default alogorithm. While it's runtime is significant, it should give a good result.
- **Schmitt** is considered very fast, but is sensitive to noise. It uses a Schmitt trigger to estimate the period of a signal.
- **Fcomb**
- **Mcomb**
- **Specacf**
- **Yinfft**

## Audio Converter

Also included in this service is an audio format conversion program. Currently supporting mp3, wav, ogg and webm files, it will convert between them. Simply select your file, select the format you wish to convert to and press 'Submit'.