**Rifff Description**

**The underlying audio sequencer**Rifff is an music sequencer with an element of randomisation. The user can load as many samples into the music sequencer they wish.  
The user sets the tempo and bar length. During playback the sequencer steps forward through the composition at an appropriate rate (beats per minute x bar length). Through the user interface, the composer will select which of the loaded samples are to be triggered.   
 **Adding Randomisation**In the traditional audio sequencer described above, the user specifies for each sample, at each step whether that sample should be played. In Rifff, the user instead specifies a probability ranging from 0% (will never play back) to 100% (will always playback, unless another sample within the group overrides it. See below)  
 **Groups**Rifff is designed to bring randomisation to the composition while giving the composer creative control. In many cases two or more samples will be mutually exclusive - for example the composer may which to prevent two bass lines playing simultaneously. To achieve this, Rifff groups samples together into banks, where a bank is a collection of samples in which only one can play back at the same time. The algorithm for deciding which sample from the bank, if any, should play back on a given step is given in the flow diagram. If more than one sample with in a bank has been assigned a 100% probability on a given step then the algorithm randomly chooses between the 100% probability samples.   
  
**Looping behavior**Each sample can have two kinds of looping behavior set against it.  **Loop -** If the audio has a shorter duration than the step time (bpm x bar length), setting the loop option causes the audio sample to repeatedly replay until the step is over   
  
**Overplay -** When overplay is not set, a sample that is longer than the step time will be silenced when a new step starts. When overplay is set that sample will play until it finishes, or until a new sample from the same back is triggered.   
  
**Loop & Overplay -** When both settings are applied to a sample it will loop until another sample from within the bank is triggered. 