Songlib: chord

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The chord family of functions plays multiple notes at the same time. The family follows the $n/r/d$ convention and also has alternatives where notes are passed in an array rather than variadically.

```
void chord(double duration,int instrument,
    int baseOctave,int basePitch,...,(int) 0);

void nchord(double duration,int instrument,
    int baseNumberedNote,...,(int) 0);

void rchord(double duration,RRA *r,...,(int) 0);

void dchord(double duration,int *data,int length,...,(int) 0);

void achord(double duration,int instrument,
    int baseOctave,int basePitch,int *offsets,int length);

void nachord(double duration,int instrument,
    int baseNumberedNote,int *offsets,int length);
```

For *chord* and *nchord*, the variadic part is a list of offsets from the numbered base note and is terminated by a zero. For *rchord*, the variadic part is additional RRA objects to play simultaneously. For *dchord*, the variadic part is additional data/length pairs.

The *achord* function takes a base octave/pitch pair and an array of offsets, The *nachord* function takes a numbered note as the base and an array of offsets. The offset arrays have length *length*.

As an example, the following line plays a three-note chord:

```
chord(4,guitar,3,C,3,5,7,(int) 0);
```

The notes played are C, F (which is C + 5 semitones), and G (which is C + 7 semitones). The following calls are equivalent:

```
nChord(4,guitar,C3,5,7,(int) 0);
rchord(4,getNumberedNote(C3),getNumberedNote(F3),getNumberedNote(G3),(int) 0);
```

The separation between the starts of the notes in the chord is controlled by the controlFunctions? setting.

Other simple chord functions

Certain semitone delta combinations are so common, **songlib** has shortcut functions. In the following pairs of calls, the two calls in the pair are equivalent:

```
chord(H,inst,octave,C,+4,+7,(int) 0);
maj(H,inst,octave,C);

chord(H,inst,octave,D,+3,+7,(int) 0);
min(H,inst,octave,D);

chord(H,inst,octave,E,+3,+6,(int) 0);
dim(H,inst,octave,E);

chord(H,inst,octave,F,+4,+8,(int) 0);
aug(H,inst,octave,F);
```

See also: play , bend , trill , draw? , silence? , stride?