

"sample" will sample the musical texture at specified

For example, consider the following kern music:

<http://kern.ccarh.org/cgi-bin/ksdata?file=chor.krn&l=/ccarh/class/2007/craig/sample&format=kern>

If you type the following command on the ccarh.org server:

```
sample chor.krn > chor01.krn
```

The music will be sampled at every quarter note. Any notes played on the off-beat locations will be removed. Here is the example output:

<http://kern.ccarh.org/cgi-bin/ksdata?file=chor01.krn&l=/ccarh/class/2007/craig/sample&format=kern>

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Now you can remove certain beats. For example, remove the last two beats of each measure (this example is in 3/4). This is done with the "beat" command which identifies which beat each line of data belongs to:

First append the beat data to the input file:

```
beat -a chor01.krn > chor02.krn
```

Here is what chor02.krn should look like:

<http://kern.ccarh.org/cgi-bin/ksdata?file=chor02.krn&l=/ccarh/class/2007/craig/sample&format=kern>

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Now use grep to remove lines which end in tab-2 and tab-3:

```
grep -v "xxx2$" chor02.krn | grep -v "xxx3$" > chor03.krn
```

Where xxx = the tab character. This has to be inserted on the command line by first pressing control-v (the n lifting up), then pressing the tab key.

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Alternatively the same result can be accomplished by setting the sampling rhythm to a dotted half note:

```
sample -r "2." chor01.krn > chor04.krn
```

This also sets the rhythms to dotted half notes instead of quarter notes.

<http://kern.ccarh.org/cgi-bin/ksdata?file=chor04.krn&l=/ccarh/class/2007/craig/sample&format=kern>

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You can also sample by arbitrary rhythmic cycles, such as a 6/8 pattern:

```
sample -r "4. 8 8 8" chor01.krn > chor05.krn
```

<http://kern.ccarh.org/cgi-bin/ksdata?file=chor05.krn&l=/ccarh/class/2007/craig/sample&format=kern>