

# Music Programming

*with*

**Pd and Chuck**

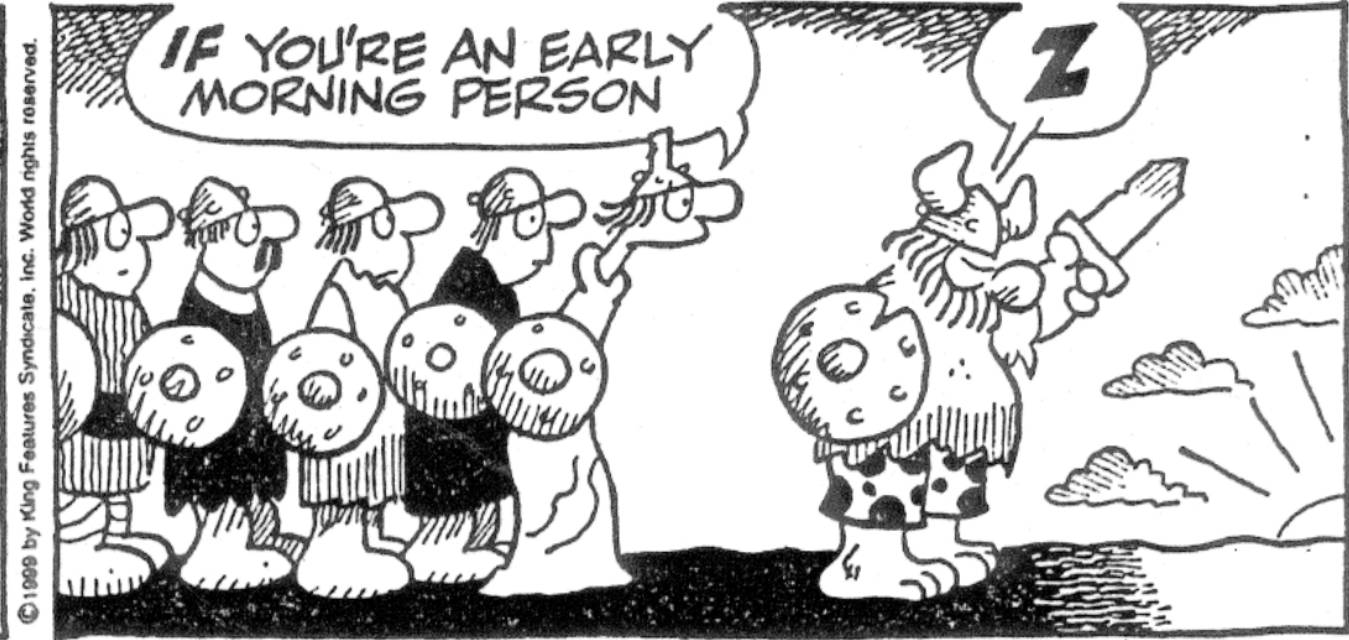
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Hägar the Horrible

By Chris Browne



see <http://smwonline.ca/early.html> :-)

# Music Programming

some possible applications:

- ♦ sound generation (effects, music at random, existing compositions, ...)
- ♦ live performance
- ♦ audio analysis
- ♦ MIDI control and transformations
- ♦ ...and pretty much anything else you can imagine

# Music Programming Choices

There are many programming languages and environments specialized for music, including...

- ♦ Csound
- ♦ SuperCollider
- ♦ Reaktor
- ♦ the Max family (Max/MSP, jMax, Pd, etc.)
- ♦ ChuckK

# Pd and ChuckK

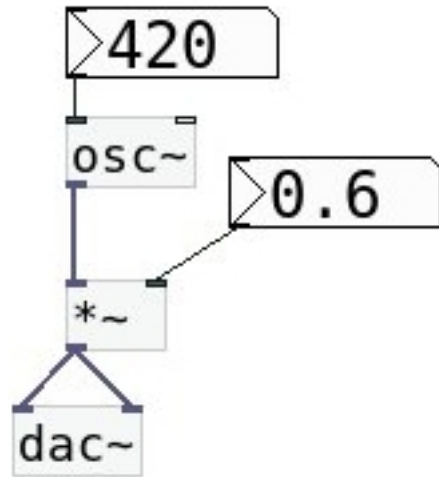
- ♦ Pd and ChuckK can be used for similar purposes.
- ♦ ...but they look completely different:
  - ♦ Pd (AKA "Pure Data") is graphically oriented (programming is done by drawing)
  - ♦ ChuckK is a programming language which looks like Java or C++, but specialized for musical applications.

# hello, world

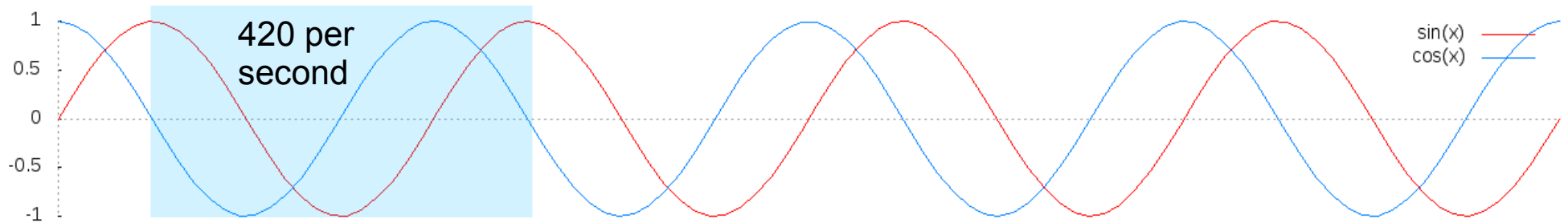
```
hello world  
print
```

```
<<< "hello, world", "" >>>;
```

# hello, (musical) world



```
SinOsc s => dac;  
420 => s.freq;  
0.6 => s.gain;  
minute => now;
```



# Further Reading

Links and resources for Pd, ChuckK, MIDI and related items will be posted to

[http://smwonline.ca/music\\_programming.html](http://smwonline.ca/music_programming.html)

(That will come up 404 at the moment; content will be added by the end of next week.)