

**ISE 575/CSCI 575/EE 675: Engineering Approaches to Music Perception and Cognition**  
 Homework 2: Due Week 3 (Jan 27, 2005)

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This week's homework focuses on score-based digital representations of music, in particular, Musedata, Humdrum and GUIDO.

- [20%, 20%] You have each been assigned a primary representation and asked to select a second representation on which to base your homework. Your first task is to convert the following score to each of these two representations as completely as possible:

- [60%] Your second task is to write a computer program in your language of choice that takes input in your assigned primary representation and creates two text files, *pitches.txt* and *onsets.txt*.

(a) *pitches.txt* should list of all pitches present at any time unit, where the unit is the smallest time value (grid level) necessary to represent all notes in the score. For example, the smallest necessary time unit for the above segment of music is the sixteenth note. *pitches.txt* for the above score should begin with:

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Bb F D D
Bb F D D
Bb F D D
Bb F C C
Bb F Bb Bb
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Bb F Bb Bb  
Bb F C C  
Bb F C C  
Bb F C C  
Bb F C C  
Bb F A A  
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Bb Eb G G  
etc.

(b) *onsets.txt* should list all onsets (beginnings of notes) in the score. The corresponding *onsets.txt* file for the above score should begin with:

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1111  
  
11  
11  
  
1111  
  
11  
  
-----  
1111  
etc.

3. [Extra credit: 5% title, 3% composer, 2% lyricist] Name that tune: what is the piece of music in this assignment.

Please turn in all source and other files documenting your work via email by 5pm before class.

E.C.  
01/21/05