

XML Processing

- 12304 lines of data per one song
- XML is deprecated and uncompressed MXL data, BUT it contains all the data needed to reconstruct a musical score in an easy to read format
- And some useless things.

```
151 <note default-x="101.59" default-y="-50">
152   <pitch>
153     <step>C</step>
154     <octave>4</octave>
155   </pitch>
156   <duration>36</duration>
157   <voice>1</voice>
158   <type>quarter</type>
159   <dot default-x="119.59" default-y="-45"/>
160   <stem>up</stem>
161   <staff>1</staff>
162 </note>
163 <note default-x="101.59" default-y="-35">
164   <chord/>
165   <pitch>
166     <step>F</step>
167     <octave>4</octave>
168   </pitch>
169   <duration>36</duration>
170   <voice>1</voice>
171   <type>quarter</type>
172   <dot default-x="119.59" default-y="-35"/>
173   <stem>up</stem>
174   <staff>1</staff>
175 </note>
176 <note default-x="101.59" default-y="-15">
177   <chord/>
178   <pitch>
179     <step>C</step>
180     <octave>5</octave>
181   </pitch>
182   <duration>36</duration>
183   <voice>1</voice>
184   <type>quarter</type>
```

XML Element Tree API

Getting rid of the useless stuff.

- Storing pitch and octave in a nested list of nested lists.
- N lists where each list represents one measure
- Each measure (list) contains 64 sublists which represents a 64th unit of time
- Each 64th unit combines all notes from the top and bottom staff

Element Tree API
XML Reading Code

[[[], [], [], [] ... []]

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