TAB2XML Requirements

Group 5

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Introduction

TAB2XML takes guitar/drum/bass tabs and allows the user to either preview it as sheet music or play it through the application directly. This makes playing music more convenient for Musicians of all expertise.

System Requirements

Functional Requirements:

- The user should be able to insert tablature and see it visualized as sheet music.
- The user should be able to play the music from any point in the tablature.
- The user should be able to make a change in the input and see that change automatically in the Sheet Music Preview.
- The user should be able to go back and forth 10 measures, if required.
- The user can select a measure to move to on the sheet music, such that the measure will appear at the top of the window.
- The user should be able to save the sheet music as a PDF.

Non-functional Requirements:

- The system should display buttons for each functionality in order to maximize usability.
- The sheet music should be displayed error-free based on the MusicXML.
- The music is played in accordance with the MusicXML.
- The sheet music should have an adaptable display in order to accommodate various screen sizes.
- The system should interact with an output device in order to play music.

Use Cases

1. Convert MusicXML file to Sheet Music
   Primary Actor: User (Musician)
   Success Scenario:

1. User opens TAB2XML
2. Inputs ASCII tablature
3. Selects “Preview Sheet Music”
4. System converts MusicXML to Sheet Music.
5. System displays Sheet Music in a GUI pop-up.
6. User views the Sheet Music
7. User closes TAB2XML

Extension:

At step 6, if the user wants to save the pdf, they can do so by clicking the “Save as PDF” button.

2. Take MusicXML and play it

   Primary Actor: User (Musician)

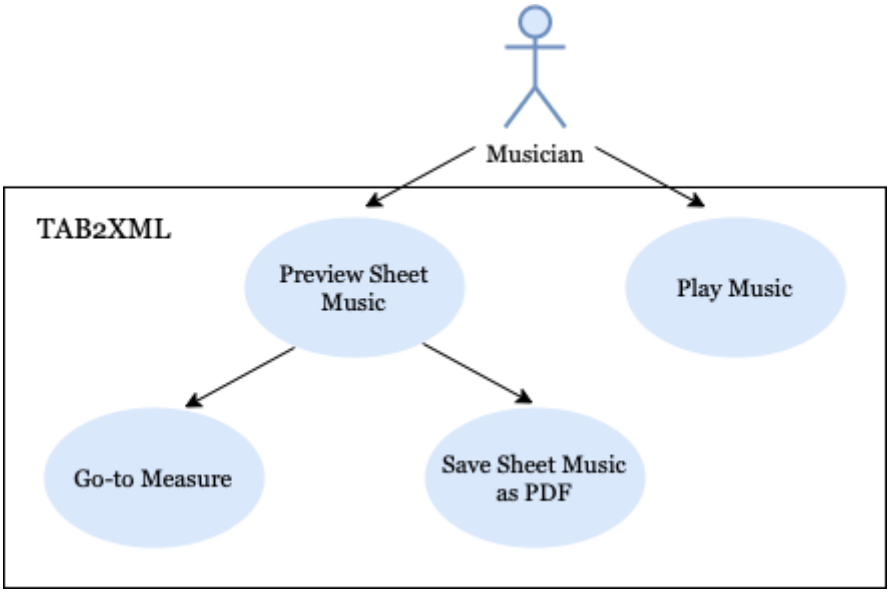
   Success Scenario:

   1. User opens TAB2XML
   2. Inputs ASCII tablature
   3. Selects “Play Tablature”
   4. System converts MusicXML to MIDI
   5. System outputs sound to user
   6. User listens to the music
   7. User closes TAB2XML

   Extension:

   At step 6, the user has the choice of scrubbing through the music at will.

Use Case Diagram



User Stories

1. “As a Musician, I want to be able to see ASCII tabs as Sheet Music, so that I can accurately play the music.”
2. “As a new Musician, I want to be able to play ASCII tabs, so that I can preview what the music should sound like. ”