TAB2XML User Manual

For Version 0.4.0

2021 March 29

Contents

1   Introduction and Purpose

The TAB2XML system can be used to convert text tablature into MusicXML. This document outlines how to install and use the system in many use cases.
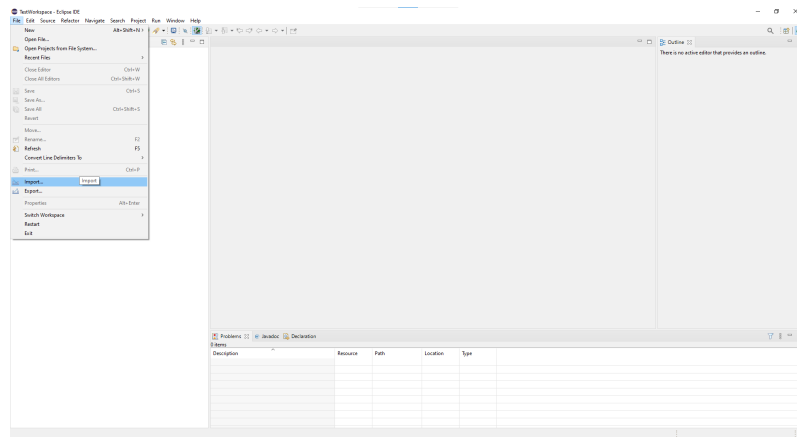
2   System Requirements

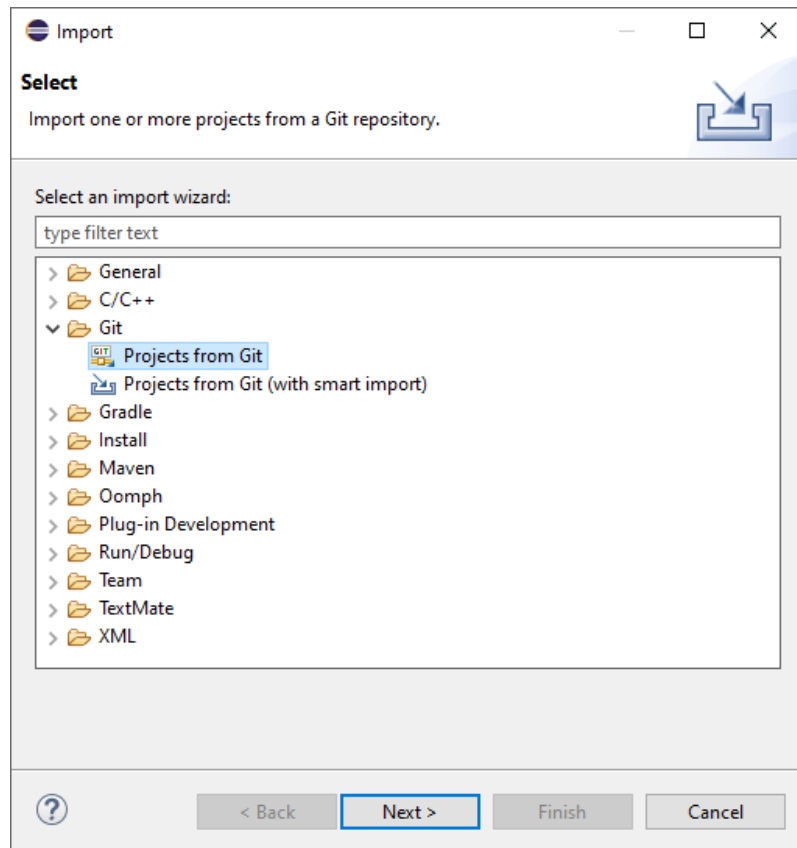- Works on all major operating systems

- Java version 11-15 required
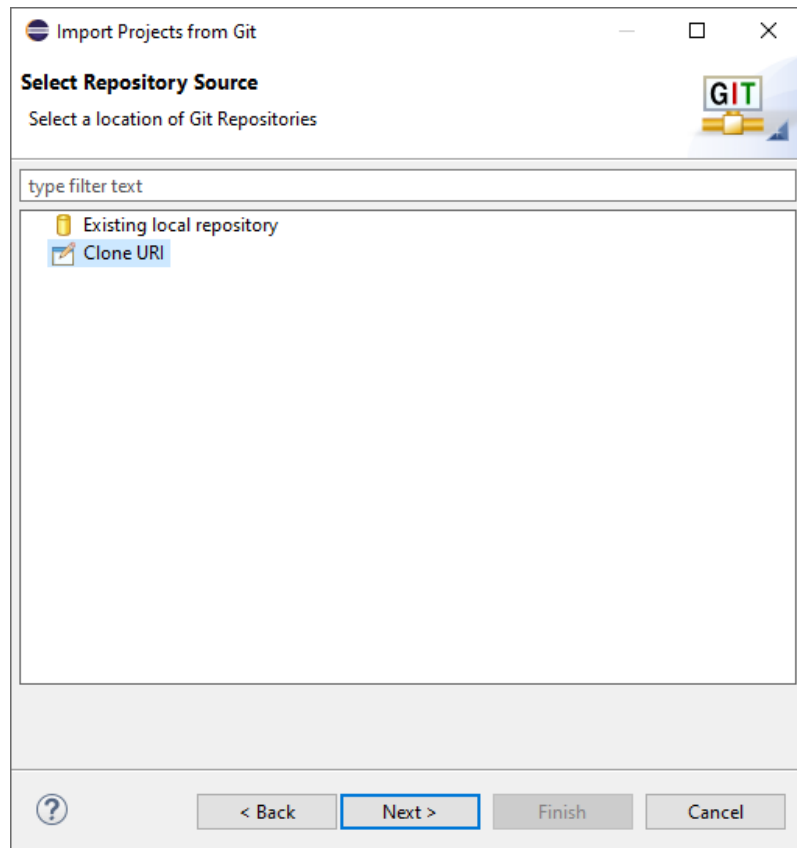
3   How to Install TAB2XML

3.1   Eclipse

1. Open Eclipse, and press `File > Import` in the menus.

2. In the window that opens, select "Projects from Git", in the folder called "Git". Then, click "Next"

3. Click "Clone URI" then click "Next".

4. Enter "`https://github.com/ahopk127/eecs2311-tab2xml.git`" in the first field ("URI"), then click "Next". No authentication is required.

5. Choose where you want the program to be saved on your computer (or just use the default location), then click "Next".

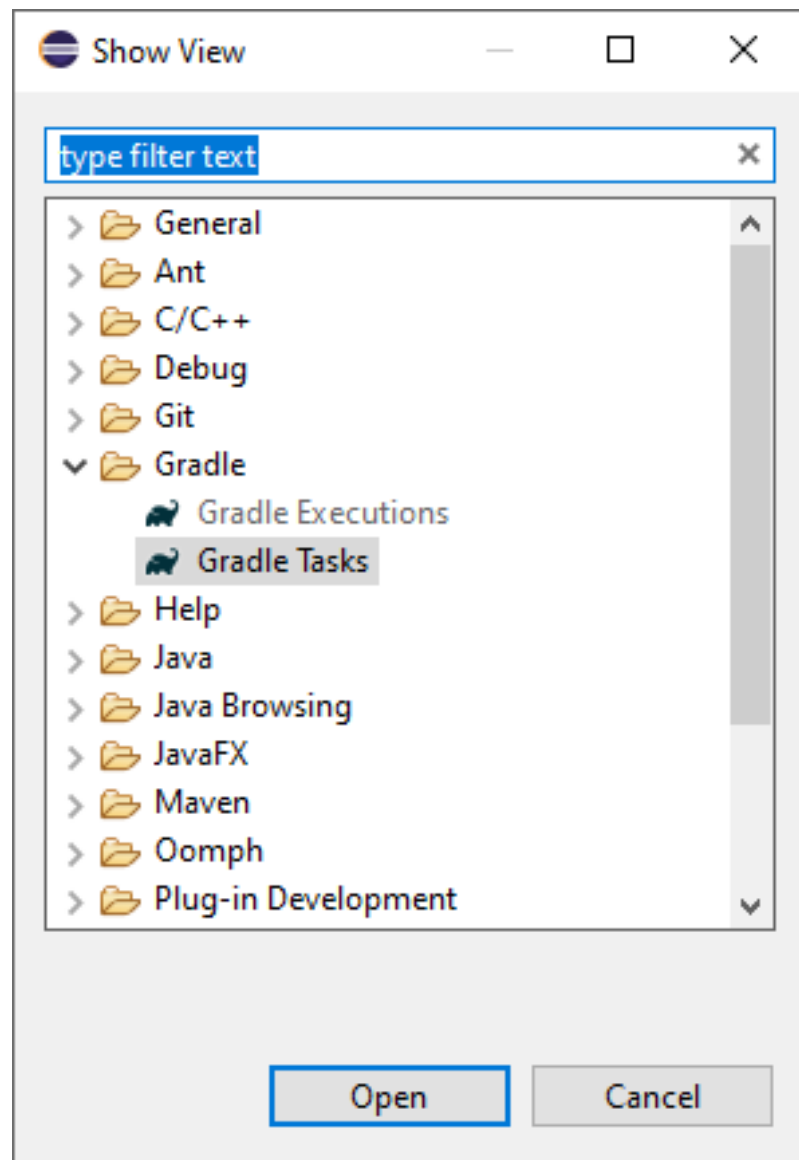6. Click "Next" then "Finish". The program is now installed on your computer, but must be built using Gradle.
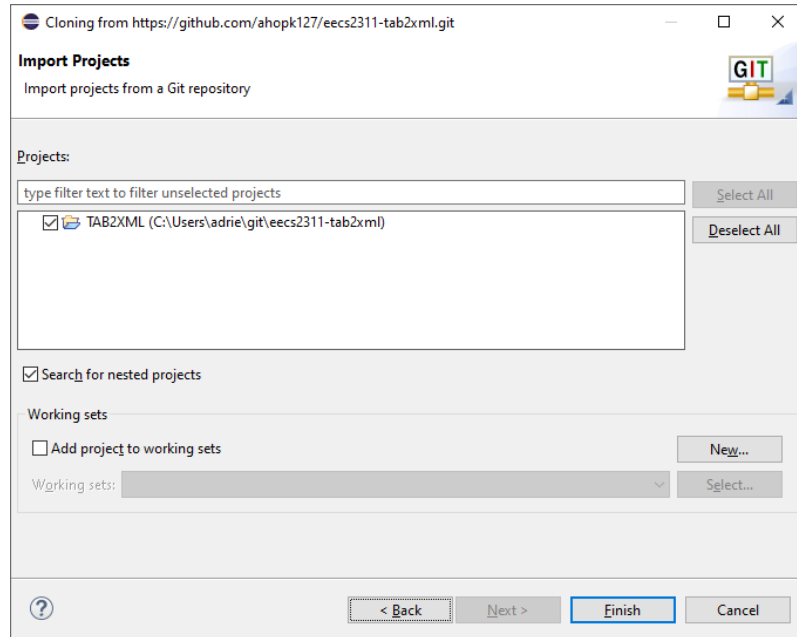
7. You will need the "Gradle Tasks" window for the next step. If you can't find it, press `Window > Show View > Other` in the menu, then find "Gradle Tasks" in the Gradle folder, then click "Open".

8. In the "Gradle Tasks" window, double-click the green "build" item in the "build" folder.
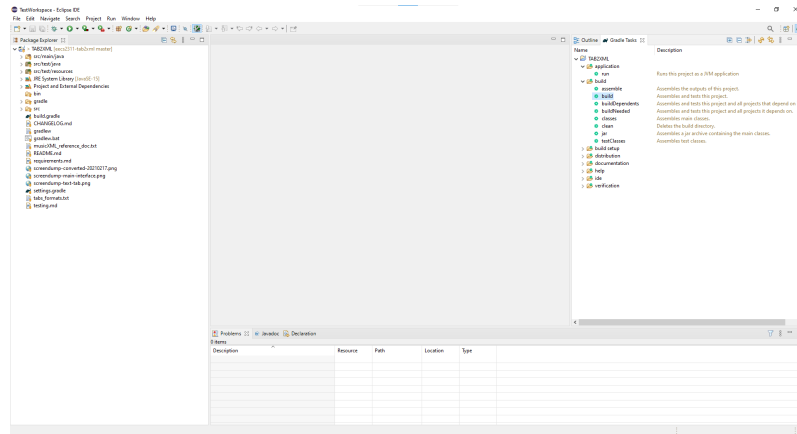
3.2 Commandline

1. Use the command `git clone https://github.com/ahopk127/eecs2311-tab2xml.git` to clone the project to the directory of your choice

2. Change directory to the directory where you installed the project, then use `./gradlew build` to build the project.

4 How to Use TAB2XML

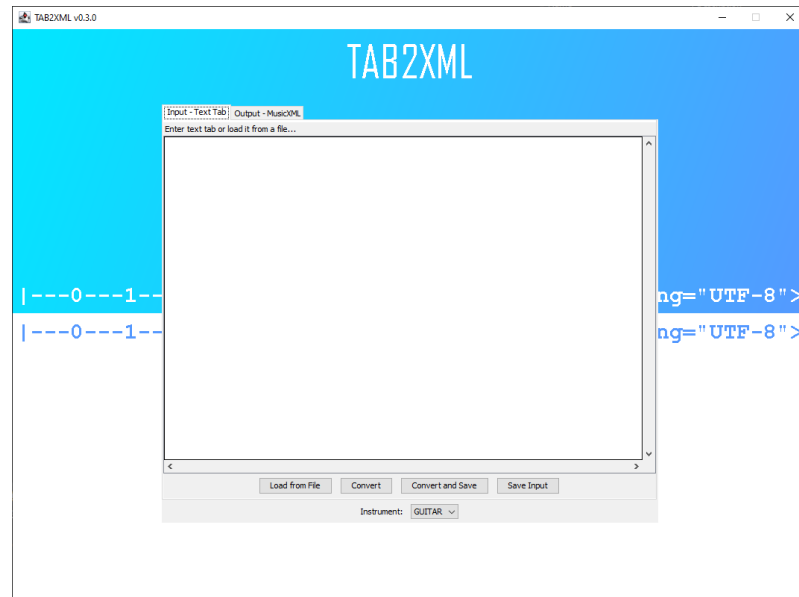## 4.1 Convert Text Tab

1. Run the application. In Eclipse, double-click the green "run" item in the "application" folder. In commandline, use the command `./gradlew run`.
   You should see a window like this:

2. Input your text tab into the application. There are multiple ways of doing this:

   - Type or copy-and-paste your text tab into the text box.
   - Press the "Load from File" button then choose a file to load your text tab from a file.
   - Drag and drop a text tab file into the input box

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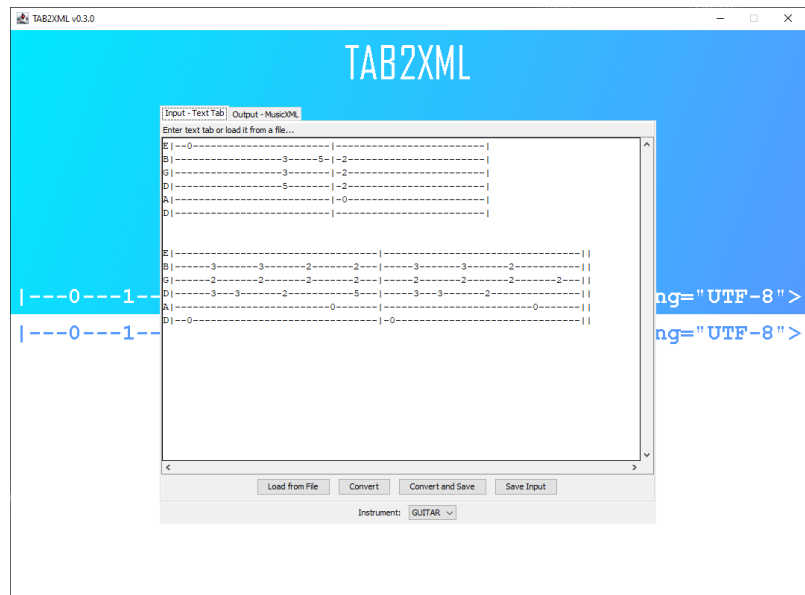
3. Press the "Convert" button. The text tab will be replaced with the corresponding MusicXML.

4. You can now copy-and-paste the MusicXML, or save it to a file using the "Save to File" button.

Here is a screenshot of the produced MusicXML, rendered using Open-SheetMusicDisplay:

4.2 Editing Text Tabs

After converting text tab with the "Convert" button, you can switch to the "Input" tab to edit the input text tab. Use "Save Input" to save the (edited) input to a file.

You can use the "Input Editing" tab for more precise editing of the input. This view also allows you to set metadata such as the title of the output score. The view should look like this:
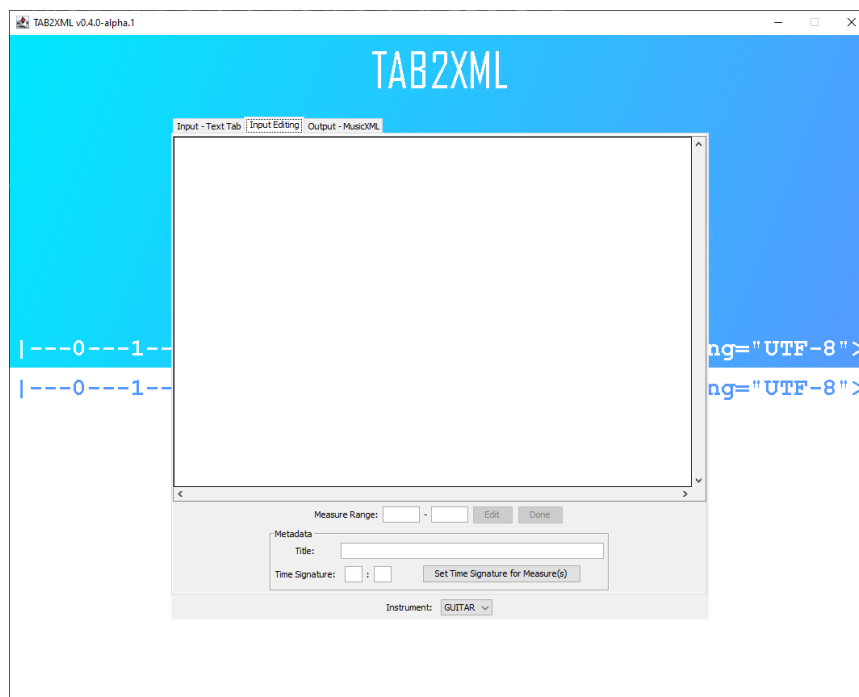
The primary feature of this view is editing a single measure or a range of measures from the input tab. To do this, select the range of measures to edit in the text boxes provided, then click "Edit". The measure(s) will appear in the large text box. Edit the measure(s), then press the "Done" button to apply the changes to the input text.

Warning: this system is not as sophisticated as the parser, and is known to sometimes fail when exposed to tabs with complex "decorations" that aren't part of the measure text. If this system fails, try removing decorations then trying again. **Warning**: editing a measure region then saving it will remove any decorations from the tab.

4.3 Other Use Cases

- You can use the "Convert and Save" button to convert a text tab and save it to a file in one step.

- To clear the text box, press Ctrl-A then Delete. If you want to load in another text tab, you don't need to do this. Simply press "Load from File" to load another text tab.

4.4 How to Use in Code

If you would like to use this project in your own program, the following code can be used to convert tab to MusicXML:

```
tab2xml.parser.Parser parser = new tab2xml.parser.Parser(INPUT, INSTRUMENT);
String output = parser.parse();
```

Notes:

- INPUT is the text tab. It should be a `String` containing the contents of the tablature, not a file or a filepath.

- INSTRUMENT is the instrument the tab is for. It should be an instance of `tab2xml.parser.Instrument`.

- You will need to add a try-catch statement to handle the checked exceptions thrown by `Parser.parse()`.