Symphonia
A short user's guide

"Symphonia" (Latin for "music") is a Java application which helps write music in sheet music form on the computer. It can also synthesize how the tune would sound if it were actually played on an instrument. On starting the application, the user must enter the duration (in seconds) of one beat, and also how loud (the dynamic marking) he/she wants the tune to start. It then opens the application window. The application window consists of three sections: an 'input' section at the bottom, a 'tune' section in the middle, and a 'feedback' section at the top. The input section consists of a single text field and a button. This is where the user can type in commands and press the Enter key (or the 'OK' button) to manipulate the tune. The main section takes up most of the window. This is where the user's tune is drawn in sheet music form by the application (when it is not empty). The feedback section at the top consists of a singe non-editable, scrollable text area, where the application can display information for the user.

The tune is mostly manipulated using text commands which the user can type into the input field. The application also has a menu bar, which contains a 'File' menu and a 'Tune' menu. The 'File' menu contains two options —

‣ 'Import command file': The user can write out all the commands he wants to execute as single lines in a command file (a .txt file starting with a line saying 'Symphonia Command File') and then import it from here. The application will execute each command line by line. It will stop immediately if an error is encountered.

‣ 'Export tune': This will 'save' the user's tune into a command file which can be imported by using the 'import command file' menu item.

The 'Tune' menu contains graphical ways to add, remove or replace notes (this can also be done by using text commands), and an option to play the tune (also can be done through the text interface).

The user may enter notes until a maximum of three sets of stave have been filled.

Commands entered by the user consist of the command name followed by arguments (if the command takes any). The following are the commands supported along with the syntax and arguments they require —

‣ add: This command is used to add new notes.

- Usage: add \<note name\> \<duration\> [+/-\<octave change\>] [\<dynamic marking\>]

- The arguments in \<\> are compulsory, while those in [ ] are not. If the octave change is not specified, the note will default to the middle octave. If the dynamic marking is not given, it will default to that of the previous note (or the starting dynamic given, if it is the first note)

- Examples:

  - add C 2 — this will add a middle C note with duration 2

  - add F# 3 +1 — this will add an F sharp note with duration 3 shifted one octave higher.

  - add Ab 1.5 -2 mf — this will add an A flat note with duration 1.5 shifted 2 octaves lower and played mezzo-forte (moderately loud)

- remove: This command is used to remove notes.

  - Usage: remove \<index of note to remove or 'last' or 'all'\>

  - This command removes the note at the index specified (or the last note if the argument is 'last' and not a particular index, or all the notes if the argument is 'all'). Note that the indices start from 0 and not from 1 (the first note is index 0).

- replace: This command is used to replace a note at a particular index.

  - Usage: replace \<index or 'last'\> \<note name\> \<duration\> [+/-\<octave change\>] [\<dynamic\>]

  - This command will replace the note at the given index (or the last note if 'last' was given) with the note which would be added if the remaining arguments were given to the 'add' command (the second to the fifth arguments are exactly the same as the arguments required for the 'add' command).

  - Examples:

    - replace 3 C# 0.25 -1 — this will replace the fourth note with a C sharp with duration 0.25 lowered by one octave (fourth as the indices start from 0)

    - replace last Bb 0.5 ff — this will replace the last note with a B flat with duration 0.5 played very loudly.

- print: This command can be used to print information (in the feedback pane) about a particular note or for all notes in the tune.

  - Usage: print \<index or 'tune'\>

  - This command will print information about the note with the specified index or about all notes in the tune (if the argument is 'tune').

‣ play: This command is used to play the whole tune from start to end. This command takes no arguments

‣ addmode on: Turns on "Add mode". From now, until the "addmode off" command is entered, everything typed by the user is taken as arguments to the add command.

‣ addmode off: Turns off "Add mode". Note that add mode can also be toggled from the 'File' menu.