



## MuseScoreSSMN Primer

### Installing MuseScoreSSMN.

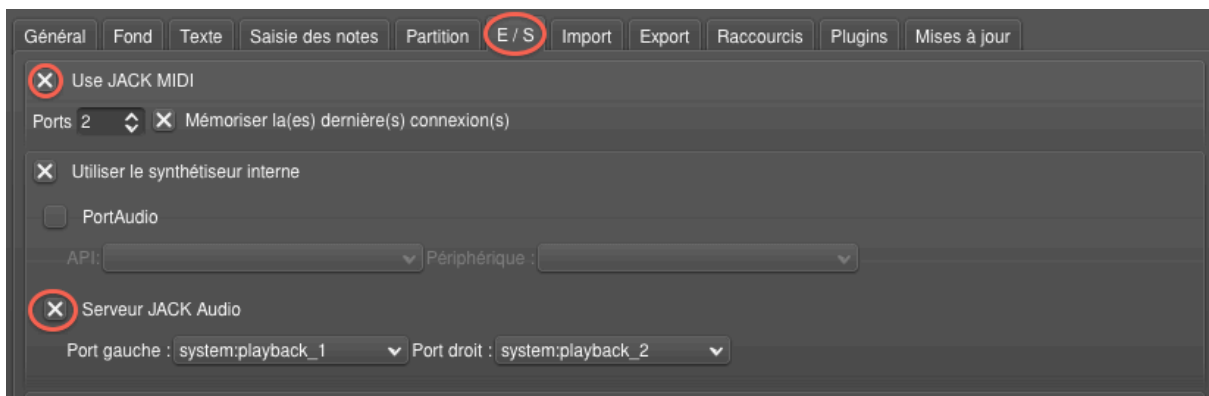
[Previous actions: installation of Jack Server (Start) and SSMN Engine; connection in qjack control MIDI window : mscore → system\_midi].

### Initial configuration.

1. After downloading the latest version of *MuseScoreSSM* at <http://blog.zhdk.ch/ssmn/software-2/>, open the application.
2. Select the Preferences window (MuseScore-->Preferences...)
3. Select "I/O" (E/S) tab --> 'Périphérique' : replace 'Built-in Output' with 'JackRouter'.
4. Verify that 'Serveur JACK Audio' is selected.
5. Click on "Apply" and "OK"

\*\*\*Tip: select "Show Play Panel" and "Show Navigator", deselect "Show MuseScore Connect".

\*\*\*Hint: Changes in "Preferences" require quitting and restarting the application.



6. Quit MuseScoreSSMN.

### Creating and editing a score (For basic user information of MuseScore, consult <http://musescore.org/en/handbook>)

1. Open MuseScoreSSMN; "File" --> "New"; create a new score; (alternately import your MusicXML file).
2. If using more than one staff (instrument), separate the staves to allow room for the spatialization symbols.
3. In the Palette panel select "Spatialization"; choose and drag a symbol to a note; when the symbol is anchored, for clarity, drag it into the margin above or below the staff.
4. In "View" select "Inspector" (F8); indicate desired parameter values (see "**Spatialization symbols & parameters**")
5. When selecting notes or measures involved in a spatialized situation, the displacement location can be viewed in the "Radar" window

For Playback within the SSMN environment see "**MuseScore & SSMN\_ENGINE**"

## Spatialization symbols & parameters

--> Selecting a spatialization symbol-

All spatialization symbols have a number of parameters that are configured in the "Inspector" dialog window.

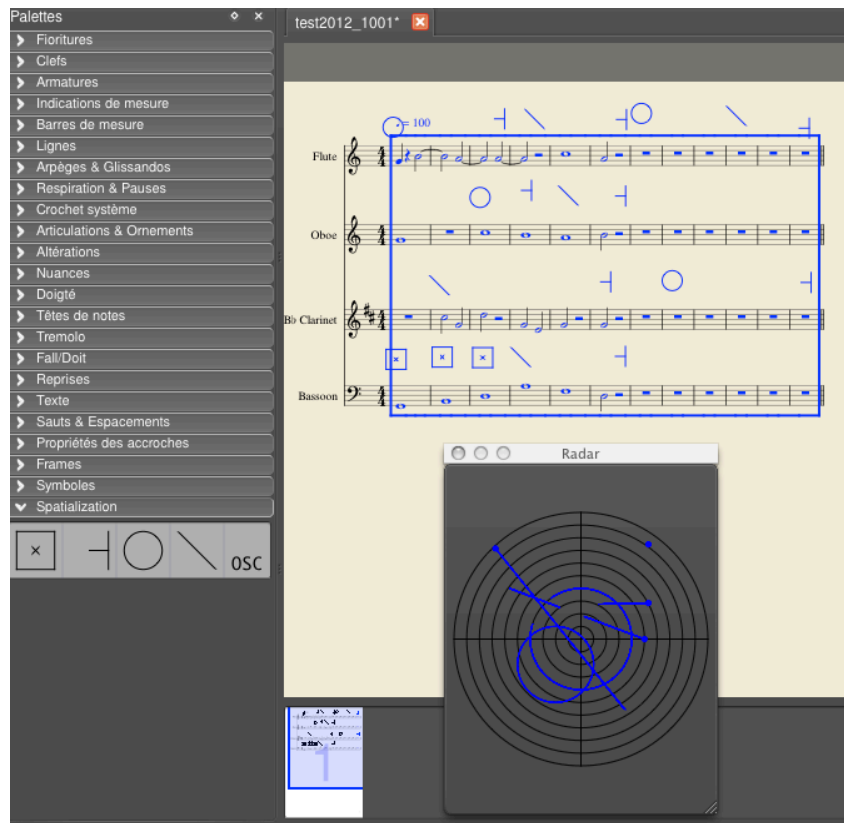
Spatialization symbols are selected in the Palette panel and dragged to an anchor point in the score (notes or rests).

The Inspector window ["View > Inspector" (F8)] displays a dialog box associated to every symbol.

Parameters common to all symbols are "Color", "Visible", as well as on-page placement "Offset X" and "Offset Y". Some symbols may require location points (start/end) expressed as XY or AD coordinates. Others may require a Center point, Radius, Direction, number of rotations, Start and End angles... The total duration of a trajectory (or placement in space) is determined either by the presence of a new symbol (at a later location), or by the use of the "end" symbol.

The screenshot displays a music notation software interface. On the left, a score for four instruments (Flute, Oboe, Bb Clarinet, and Bassoon) is shown. A blue circle with the number '100' is placed on a note in the Flute part. To the right, the 'Inspecteur' dialog window is open, showing the 'SpatializationSymbol' parameters. The parameters are: Couleur (black), Visible (checked), Offset X (-0.56sp), Offset Y (-1.65sp), Center (0, 10), Radius (40), Direction (Clockwise), Rotations (2), Start Angle (45°), and End Angle (90°). Below the Inspector window is a 'Radar' window showing a circular radar chart with a blue circle and a blue arrow indicating a trajectory.

The "Radar" window ["View > Show Radar" (8)] displays the location of the selection associated with chosen spatialization symbols.



--> Deleting a selected spatialization symbol.

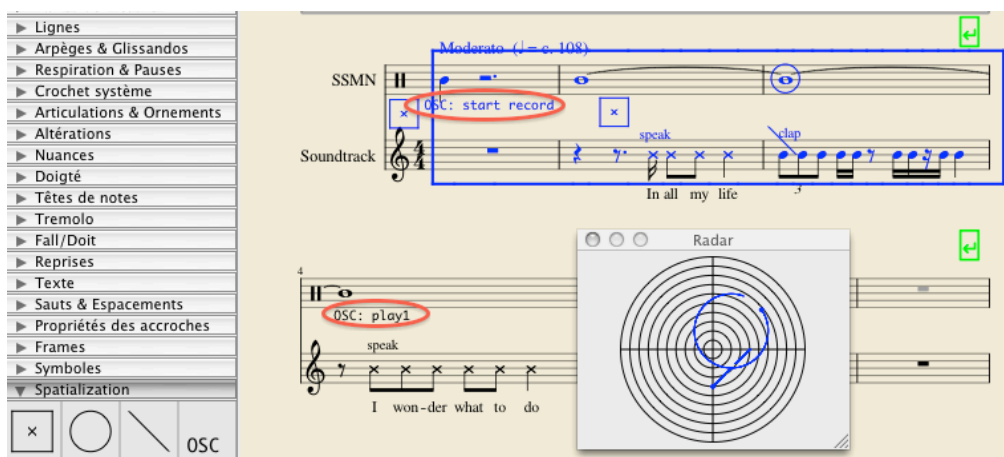
When using a standard keyboard, press on the "delete" key. For laptops, press "fn-backspace"

--> Copying spatialization symbols

Spatialization symbols are copied individually and pasted at desired location.

--> OSC messages

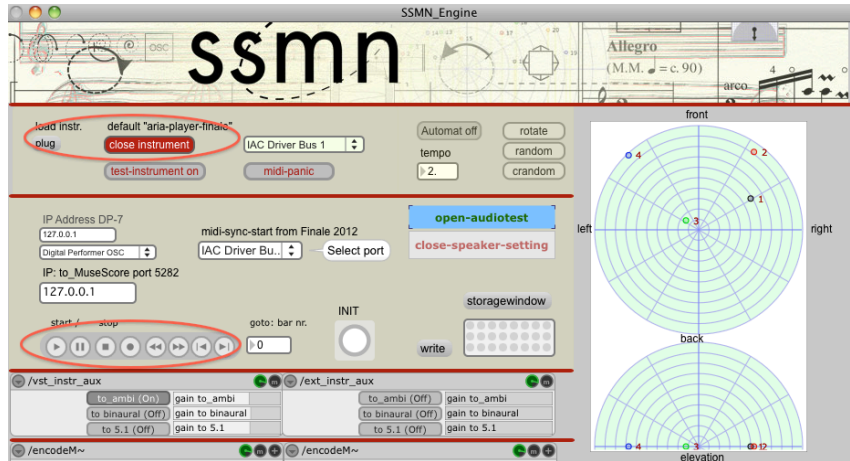
OSC messages are anchored at desired location (notes or rests) and are defined as start/end messages.



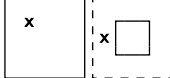





## MuseScore & SSMN\_ENGINE









In the present version, playback of your MuseScoreSSMN composition is routed to the SSMN\_Engine.

A default sample player "Aria Garritan Player" (opened in the SSMN\_Engine window) will receive MIDI data and play the instruments selected by the user and the 'Play' functions can be activated from the same window as well.



### Table of basic symbols

name of symbol	sub symbol	description	parameters
positioning	position		position jitter
	alternate position		position A position B duration of alternation
Line	straight forward (open)		duration start point [numerical] end point [numerical] repetition [numerical] acceleration [fixed-word-list] variation [fixed list] 1. sine/triangle, sawtooth, square a. amp [numerical] b. freq [numerical: number of periods] 2. jitter (noise) a. max space deviation [fixed list: 3 magnitudes: tight, medium, loose]
	straight forward & backward (closed)		duration start point [numerical] end point [numerical] repetition [numerical] acceleration [fixed-word-list] variation [fixed list] 1. sine/triangle, sawtooth, square a. amp [numerical] b. freq [numerical: number of periods] 2. jitter (noise) a. max space deviation [fixed list: 3 magnitudes: tight, medium, loose]
circle	static center		duration center point radius starting angle end angle direction (cw, ccw) number of rotations variation 1. sine/triangle, sawtooth, square a. amp [numerical] b. freq [numerical: number of periods] 2. jitter (noise) a. max space deviation [fixed list: 3 magnitudes: tight, medium, loose]
	back & forth		duration center point radius starting angle end angle direction (cw, ccw) number of rotations variation 1. sine/triangle, sawtooth, square a. amp [numerical] b. freq [numerical: number of periods] 2. jitter (noise) a. max space deviation [fixed list: 3 magnitudes: tight, medium, loose]

	slinky	center point moves constant and linear 	duration center point start center point end radius starting angle end angle direction (cw, ccw) repetition variation 1. sine/triangle, sawtooth, square a. amp [numerical] b. freq [numerical: number of periods] 2. jitter (noise) a. max space deviation [fixed list: 3 magnitudes: tight, medium, loose]
curve (bezier)	forward		duration start point start point handle end point end point handle repetition acceleration variation 1. sine/triangle, sawtooth, square a. amp [numerical] b. freq [numerical: number of periods] 2. jitter (noise) a. max space deviation [fixed list: 3 magnitudes: tight, medium, loose]
	forward & backward		duration start point end point repetition acceleration variation 1. sine/triangle, sawtooth, square a. amp [numerical] b. freq [numerical: number of periods] 2. jitter (noise) a. max space deviation [fixed list: 3 magnitudes: tight, medium, loose]
spiral	center to outer radius		duration outer angle outer radius acceleration direction (cw, ccw) n rotations
	outer radius to center		duration outer angle outer radius acceleration rotation direction (cw, ccw) n rotations
	in $\longleftrightarrow$ out		duration outer angle outer radius acceleration rotation direction (cw, ccw) n rotations start (in or out)
osc message			any osc messages can be routed over port 5012.
end marker			terminates the action of a previous symbol