

MusicFormats API guide

<https://github.com/jacques-menu/musicformats>

vv0.9.70 – July 18, 2023

Jacques Menu

Minimal score



```
1 S_lpsrScore translateMsrToLpsr (  
2     const S_msrScore&          originalMsrScore,  
3     const S_msrOahGroup&       msrOpts,  
4     const S_lpsrOahGroup&      lpsrOpts,  
5     mfPassIDKind               passIDKind,  
6     std::string                 passDescription,  
7     const S_mfcMultiComponent& multiComponent)  
8 {  
9     // ... ..  
10  
11     // create an msr2lpsrTranslator  
12     msr2lpsrTranslator  
13         translator (  
14             originalMsrScore);  
15  
16     // build the LPSR score  
17     S_lpsrScore  
18         resultingLpsr =  
19         translator.translateMsrToLpsr (  
20             originalMsrScore,  
21             multiComponent);  
22  
23     // ... ..  
24  
25     return resultingLpsr;  
26 }
```

Contents

1	Acknowledgements	3
I	MusicFormats API principles	4
2	API principles	5
II	The MXSR API	6
3	Creating scores with the MXSR API.	7
III	The MSR API	8
4	Creating scores with the MSR API	9
IV	The LPSR API	10
5	Creating scores with the LPSR API	11
V	The BSR API	12
6	Creating scores with the BSR API.	13
VI	Indexes	14

List of Figures

Chapter 1

Acknowledgements

Many thanks to Dominique Fober, the designer and maintainer of the `libmusicxml2` library. This author would not have attempted to work on a MusicXML to LilyPond converter without his work being already available.

In particular, the conversion of MusicXML data to a tree is extremely well done directly from the MusicXML DTD, and that was a necessary step to produce LilyPond code. Dominique also provided a nice way to browse this tree with a two-phase visitor design pattern, which this author uses extensively in his own code. The interested reader can find information about that in [libmusicxml2.pdf](#), and more technical details in [MusicFormatsMaintenanceGuide.pdf](#).

`xml2ly` and some of the specific examples presented in this document started as this author's contribution to `libmusicxml2`, and was later moved to a separate GitHub repository for practical reasons.

Part I

MusicFormats API principles

Chapter 2

API principles

Part II

The MXSR API

Chapter 3

Creating scores with the MXSR API

Part III

The MSR API

Chapter 4

Creating scores with the MSR API

Part IV

The LPSR API

Chapter 5

Creating scores with the LPSR API

Part V

The BSR API

Chapter 6

Creating scores with the BSR API

Part VI

Indexes

Main index

A		
API		1
D		
Dominique Fober		3
DTD		3
L		
libmusicxml2		3
LilyPond		3
M		
MusicFormats		1
MusicXML		3