

# MusicFormats API guide

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

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## 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 }
```

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# 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



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# **Part III**

## **The MSR API**

## Chapter 4

# Creating scores with the MSR API

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# Part IV

## The LPSR API

## Chapter 5

# Creating scores with the LPSR API

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# **Part V**

## **The BSR API**

## Chapter 6

# Creating scores with the BSR API

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# Part VI

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