#### MusicFormats API guide

#### https://github.com/jacques-menu/musicformats

vv0.9.69 - May 30, 2023

#### Jacques Menu

#### Minimal score



```
S_lpsrScore translateMsrToLpsr (
     const S_msrScore& originalMsrScore,
     const S_msrOahGroup&
                                 msrOpts,
lpsrOpts,
     const S_lpsrOahGroup&
     mfPassIDKind
                                 passIDKind,
     std::string passDescription const S_mfcMultiComponent& multiComponent)
                                  passDescription,
11
    // create an msr2lpsrTranslator
    {\tt msr2lpsrTranslator}
13
       translator (
14
         originalMsrScore);
    // build the LPSR score
16
    S_lpsrScore
       resultingLpsr =
        translator.translateMsrToLpsr (
           originalMsrScore,
           multiComponent);
24
    return resultingLpsr;
```

### Contents

# List of Figures

#### 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 MusicFormatsMaintainanceGuide.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

# **API** principles

# $\begin{array}{c} {\rm Part~II} \\ {\rm The~MXSR~API} \end{array}$

## Creating scores with the MXSR API

# Part III The MSR API

## Creating scores with the MSR API

# $\begin{array}{c} {\rm Part~IV} \\ \\ {\rm The~LPSR~API} \end{array}$

# Creating scores with the LPSR API

# ${f Part\ V}$ The BSR API

## Creating scores with the BSR API

Part VI

Indexes

### Main index

| ${f L}$       |          |
|---------------|----------|
| libmusicxml23 | 3        |
| LilyPond3     | 3        |
| v             |          |
| ${f M}$       |          |
|               | ï        |
| MusicFormats  | L        |
|               | LilyPond |