# MusicFormats API guide

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

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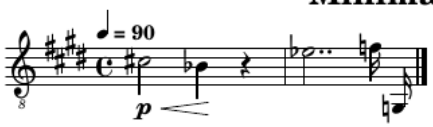
**Jacques Menu**

**Minimal score**




```
S_lpsrScore translateMsrToLpsr (
  const S_msrScore&          originalMsrScore,
  const S_msrOahGroup&       msrOpts,
  const S_lpsrOahGroup&      lpsrOpts,
  mfPassIDKind               passIDKind,
  std::string                passDescription,
  const S_mfcMultiComponent& multiComponent)
{
  // ... ... ...

  // create an msr2lpsrTranslator
  msr2lpsrTranslator
    translator (
      originalMsrScore);

  // build the LPSR score
  S_lpsrScore
    resultingLpsr =
      translator.translateMsrToLpsr (
        originalMsrScore,
        multiComponent);

  // ... ... ...

  return resultingLpsr;
}
```

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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 `mfmaintainanceguide.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.

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