

Matlab and Octave API for SOFA

Piotr Majdak

Acoustics Research Institute, Austrian Academy of Sciences, Vienna,
Austria

<piotr@majdak.com>

**This document contains preliminary remarks on the
API_MO version 0.4.**

Further contributors:

- **Hagen Wierstorf** (Telekom Innovation Laboratories, Technical University of Berlin, Berlin, Germany) hagen.wierstorf@telekom.de
- **Harald Ziegelwanger** (Acoustics Research Institute, Austrian Academy of Sciences, Vienna, Austria) h.ziegelwanger@me.com
- **Michael Mihocic** (Acoustics Research Institute, Austrian Academy of Sciences, Vienna, Austria) michael.mihocic@oeaw.ac.at

1. STARTING THE API

SOFAstart compiles the conventions (stored in directory conventions as CSV files) to Matlab files and starts the API.

More information in readme.txt.

2. DEMONSTRATIONS

In the directory “demos”, some demonstrations of the functionality of the API are provided. This is the first place to get familiar with the structure of the API.

3. STRUCTURE OF THE SOFA OBJECT

All the SOFA information is stored in the a variable which we call SOFA object here. In that object:

- “Data.”: separate structure with the SOFA data.
- “GLOBAL_”: Global attributes
- Attribute Y of a variable X is stored as X_Y.
- “PRIVATE”: structure with private data for application use. Private data won't be saved when saving a SOFA object.
- API internal variables are:
 - API.N, API.M, etc (all SOFA dimensions): store the size of a dimension
 - API.Dimensions: dimensions of SOFA variables

4. FURTHER RESOURCES

Further resources can be found:

- api_mo/readme.txt provides a short description of the API.
- api_mo/history.txt provides the history of the development and release notes.
- doc/specs provides specifications of the currently supported SOFA
- <http://sofaconventions.org> provides the most recent information on SOFA