

libSBML

Status update

Sarah Keating

on behalf of the

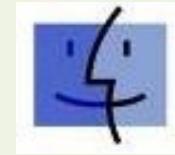
SBML Team

libSBML

- API library for working with SBML
- read/write SBML
- create/manipulate SBML
- validate SBML
- convert between Levels/Versions of SBML

libSBML

- Standard ANSI C++
- C
- C#
- Python
- MATLAB
- Java
- Octave
- Perl
- Ruby

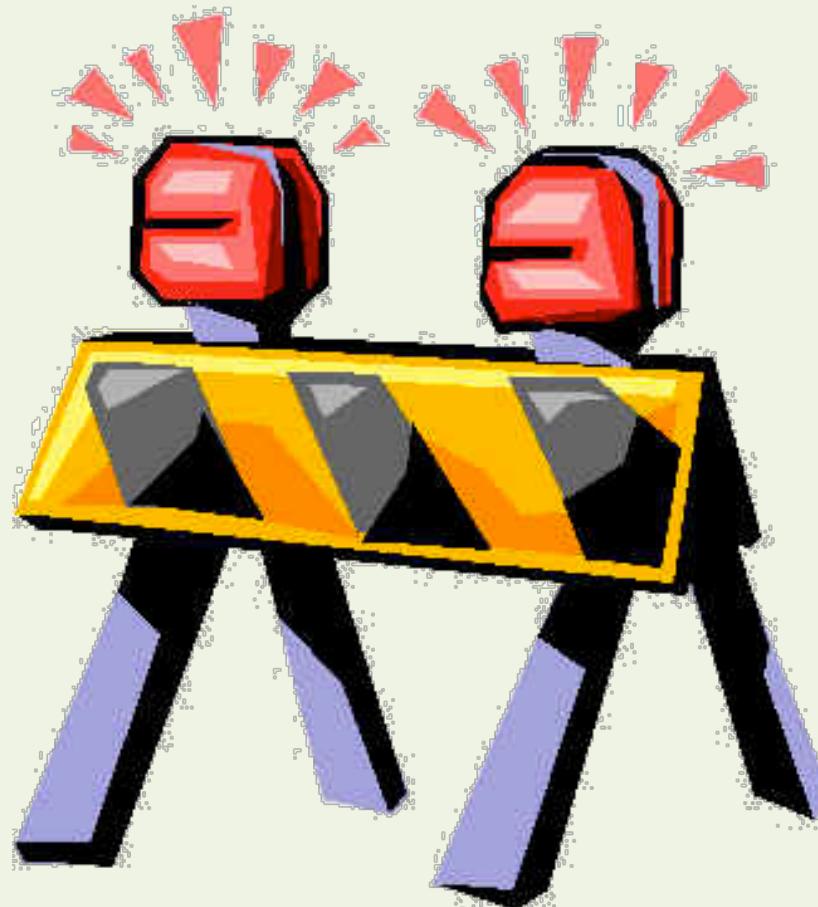


LGPL

Current status

libSBML 4.3.1

- no further support



libSBML 4.3.1

Upgrade

... please

libSBML 5.1.0-b0

[Home](#) / [libsbml](#) / 5.1.0-b0

Name ▾

 Parent folder

 Mac OS X

 Windows

 Linux

[libSBML-5.1.0-b0-src.tar.gz](#)

[libSBML-5.1.0-b0-src.zip](#)

[README.txt](#)

Totals: 6 Items

l i b S B M L 5.1.0-b0

libSBML 5.1.0-b0

[Home](#) / [libsbml](#) / [5.1.0-b0](#) / Mac OS X

Name ▾

↑ Parent folder

[libSBML-5.1.0-b0-libxml2-macosx-10.6-snowleopard.dmg](#)

[libSBML-5.1.0-b0-libxml2-macosx-10.7-lion.dmg](#)

[README.txt](#)

[libSBML-5.1.0-b0-libxml2-macosx-10.5-leopard.dmg](#)

Totals: 4 Items

l i b S B M L 5.1.0-b0
Installers for Mac OS X operating systems

libSBML 5.1.0-b0

[Home](#) / [libsbml](#) / [5.1.0-b0](#) / [Windows](#) / [64-bit](#)

Name ▾

↑ [Parent folder](#)

 [Python](#)

[libSBML-5.1.0b0-win-x64.exe](#)

[libSBML-5.1.0b0-win-matlab-x64.exe](#)

[README.txt](#)

Totals: 4 Items

l i b S B M L 5 . 1 . 0 - b 0
Installers for 64-bit Microsoft Windows operating systems

libSBML 5.1-packages-beta

Home / libsbml / 5.1-packages-beta

| Name |
|--|
| Parent folder |
| spatial-5.1.0-beta-1.zip |
| req-5.1.0-beta-1.zip |
| groups-5.1.0-beta-1.zip |
| fbc-5.1.0-beta-1.zip |
| comp-5.1.0-beta-1.zip |
| README.txt |

Totals: 6 Items

l i b S B M L 5.1.0
SBML Level 3 extension packages

libSBML 5.1.0-b0

Why beta ??

- most code same as 5.0.0 (stable)
 - additions
 - bug fixes
- new conversion API (beta)

Developers of new packages

libSBML-5 Documentation

Main Page Classes Files

About libSBML and its use

How to implement a package extension

This section describes the summary of how to implement a package extension for libSBML-5.

(Note that since libSBML-5 is currently in development stage the API described in this documentation may be changed in the future.)

1. Implement an [SBMLExtension](#) derived class
2. Implement [SBase](#) derived classes of the package extension
3. Implement [SBasePlugin](#) derived classes
4. Implement a forward declaration file
5. Implement a header file which includes all SBML types defined in the extension
6. Defines a macro value of the package extension
7. How to import a source tree of a package extension into the source tree of libSBML-5

1. Implement an [SBMLExtension](#) derived class

Firstly, an [SBMLExtension](#) derived class for your package needs to be implemented based on the steps described in [SBMLExtension](#) class.

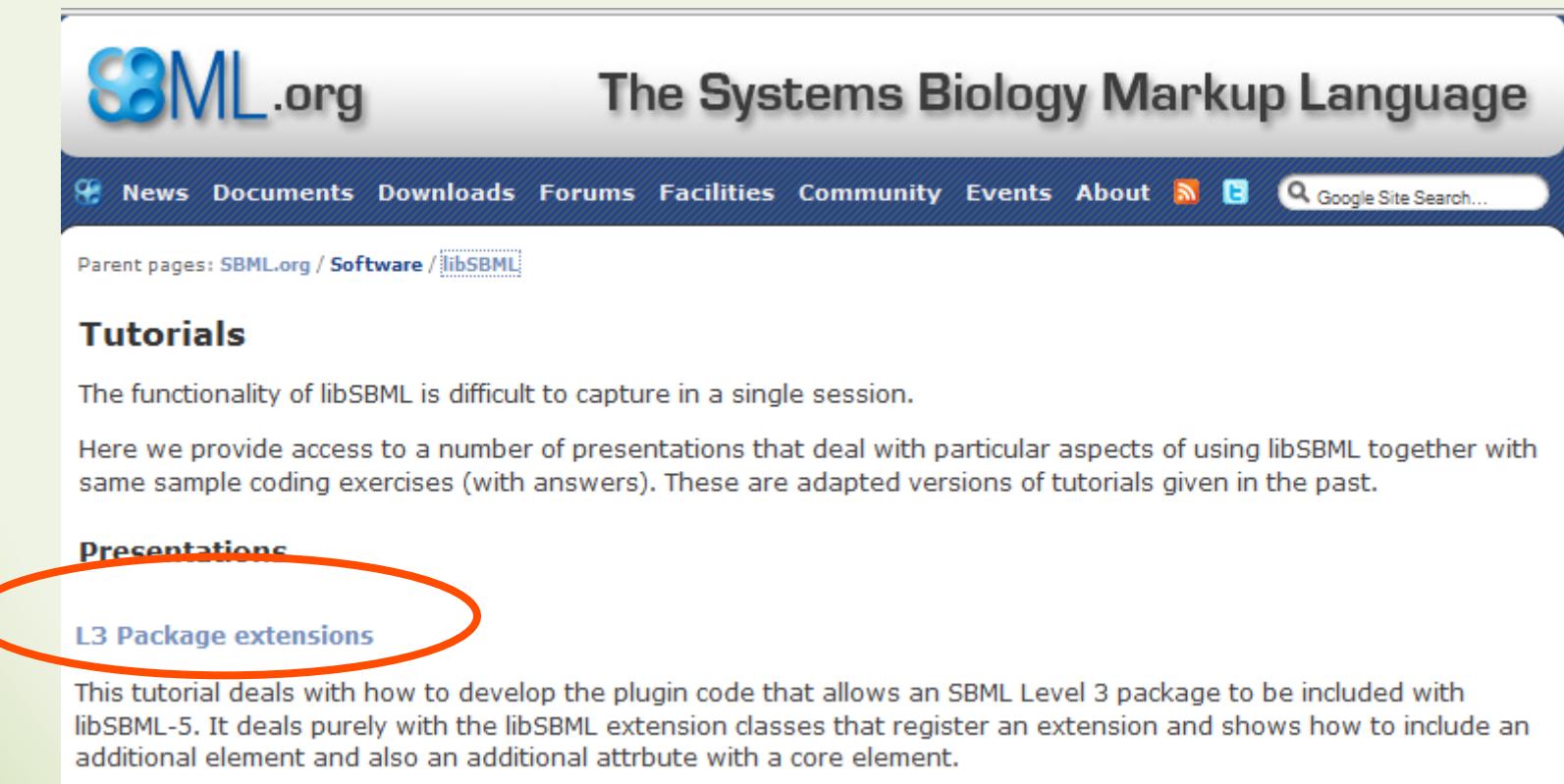
2. Implement [SBase](#) derived classes of the package extension

Secondly, [SBase](#) derived classes for your package need to be implemented based on the following steps:

Developers of new packages

libSBML-5 Documentation

<http://sbml.org/Software/libSBML/Tutorials>



The screenshot shows the libSBML Tutorials page on the SBML.org website. The header features the SBML.org logo and the text "The Systems Biology Markup Language". The navigation bar includes links for News, Documents, Downloads, Forums, Facilities, Community, Events, About, and a search bar. Below the navigation bar, the text "Parent pages: SBML.org / Software / libSBML" is displayed. A section titled "Tutorials" contains the text: "The functionality of libSBML is difficult to capture in a single session. Here we provide access to a number of presentations that deal with particular aspects of using libSBML together with same sample coding exercises (with answers). These are adapted versions of tutorials given in the past." Another section titled "Presentations" lists "L3 Package extensions", which is circled in red. The description for "L3 Package extensions" states: "This tutorial deals with how to develop the plugin code that allows an SBML Level 3 package to be included with libSBML-5. It deals purely with the libSBML extension classes that register an extension and shows how to include an additional element and also an additional attribute with a core element."

Acknowledgements

- Bill Denny
- Christoph Flamm
- Akira Funahashi
- Ralph Gauges
- Martin Ginkel
- Alex Gutteridge
- Stefan Hoops
- Moriyoshi Koizumi
- Ben Kovitz
- Rainer Machné

Acknowledgements



Ben Bornstein
JPL, USA



Akiya Jouraku
Keio, Japan



Frank Bergmann
Caltech, USA



Lucian Smith
U. of Washington,
USA



Sarah Keating
EMBL-EBI, UK

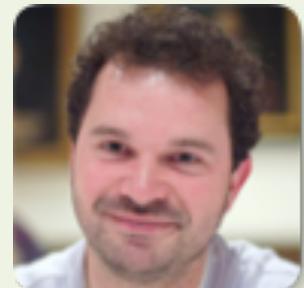


Mike Hucka
Caltech, USA



Linda Taddeo
Caltech, USA

SBML Team



Nicolas Rodriguez
EMBL-EBI, UK

