

SBFC: The Systems Biology Format Converters Framework

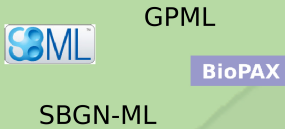
Gaël Jalowicki¹, Nicolas Rodriguez¹, Martina Kutmon², Jean-Baptiste Pettit¹, Lu Li¹, Arnaud Henry¹, Kedar Nath Natarajan¹, Camille Laibe¹, Chris T. Evelo² and Nicolas Le Novère¹.

1: European Bioinformatics Institute, Computational Systems Neurobiology, Hinxton, United Kingdom

2: Department of Bioinformatics, BiGCaT, Maastricht University, The Netherlands

Input formats examples

Any format can be taken as input. These formats are currently supported:

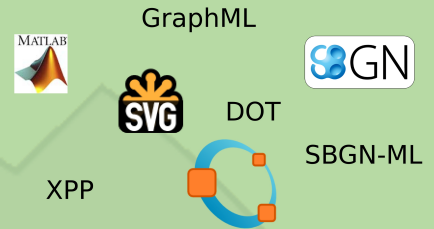


New converters

Contributions to the SBFC framework are welcome: you can contribute by implementing new converters.

Output formats examples

Any format can be produced. Here are a few supported examples:



A collaborative project

Together, we gather any formats and their corresponding converters

INTEROPERABILITY

Converter pipelines

Converters can be serially associated, increasing the number of possible conversions.

Pivotal conversion

An intermediate converter can make a conversion more manageable and efficient.

Limiting loss of information

Selection of the appropriate converters to generate the correct input.

Converters with multiple inputs

It will be possible to erase the frontier between descriptive and structural model formats.

COMBINE

Combining converters to increase automatically the number of converters

A generic framework

Relying on the Open Service Gateway initiative (OSGi)

Plug-in infrastructure (bundles)

Each converter is implemented in a modular way.

Defined "bundles" interaction

Converters can be interdependent and interoperable.

A standalone executable

A converter can be implemented to be used anywhere.

Providing formats support

Input and output formats are supported by implementing a simple interface. Serialising SBFC converters allows one to effectively add a previously unsupported conversion.

Web resources

Documentation:

<http://sbfc.sourceforge.net>

Questions? Get support at:

biomodels-net-support@lists.sourceforge.net

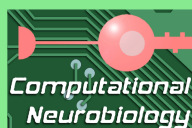
Online conversion service (using SBFC):

<http://www.ebi.ac.uk/compneur-srv/converters/converters>

Existing converters

Contributions can be made if you have already implemented one or more converters. Existing converters can be modified easily to create a SBFC module.

EMBL-EBI



Universiteit Maastricht

