



Helpfile for the conversion of SBtab and SBML files

1. The conversion of SBML files to SBtab files

Biochemical models in SBML format can be converted to SBtab files. To be sure that your SBML file is valid, you can check this by using the SBML validator at <http://sbml.org/Facilities/Validator/>. Then, you can upload your SBML file on our website and push the "Convert to SBtab" button. The SBML file will be converted into three SBtab tables of the types Compartment, Compound, and Reaction. The tables will show in the file list on the top of the page:

The screenshot shows the SBtab website interface. At the top left is the SBtab logo. Below it, a line of text says "Information on how to use the SBtab <-> SBML converter can be found in the [manual](#)." The main content is divided into two sections. The first section is titled "Convert SBtab file/s to SBML file". It contains a form with a label "Upload SBtab file to convert (.tsv, .csv, .xls):" followed by a "Datei auswählen" button and the text "Keine ausgewählt". Below this is a "Submit" button. The second section is titled "Convert SBML file to SBtab files". It contains a form with a label "Upload SBML file to convert (.xml):" followed by a "Datei auswählen" button and the text "Keine ausgewählt". Below this is a "Submit" button. In the middle of the page, there is a list of SBtab documents. The first document is "SBtab document BIOMD" with a "Convert to SBML" button. Below it are three items: "• BIOMD_reaction_SBtab.tsv" with "Convert to SBML", "Remove", and "Download" buttons; "• BIOMD_compound_SBtab.tsv" with "Remove" and "Download" buttons; and "• BIOMD_compartment_SBtab.tsv" with "Remove" and "Download" buttons. At the bottom of the page, there is a "Back to main page" link.

The three SBtab tables contain, respectively, information about compartments, compounds, and reactions from the SBML file. Tables stemming from one SBML model form an SBtab document and are named after the original SBML file. Using the buttons, you can download individual tables or remove them from the list.

Please see next page for the conversion from SBtab to SBML

2. The conversion of SBtab files to SBML files

SBtab files, to be convertible into SBML models, must provide some basic information about the reactions and species in the model. Currently, SBML files can only be created from SBtab files of the type "Reaction". The SBtab file must contain, at minimum, the reactions' sum formulae. To create the SBML file, push the "Convert to SBML" button next to the Reaction table in the list.



The screenshot shows the SBtab website interface. At the top left is the SBtab logo. Below it, a link to a manual is provided. The main heading is "Convert SBtab file/s to SBML file". Under this heading, there is a file upload section with a "Datei auswählen" button and the text "Keine ausgewählt", followed by a "Submit" button. Below this, a list of SBtab documents is shown, with the first entry being "sbtabs_reaction_single_Reaction.tsv". This entry has three buttons: "Convert to SBML", "Remove", and "Download". The second main heading is "Convert SBML file to SBtab files". This section also has a "Datei auswählen" button and "Keine ausgewählt" text, followed by a "Submit" button. Below this, a list of SBML documents is shown, with the first entry being "sbtabs_reaction_single_Reaction_SBML.xml". This entry has three buttons: "Convert to SBtab", "Remove", and "Download". At the bottom of the page, there is a link "Back to main page".

If your Reaction table is syntactically valid (you can check this with the help of the online validator), it will be converted into a valid SBML model. The SBML file will appear in the list of SBML file on the bottom of the page.

The SBtab developers will be happy to answer you any further questions:

Wolfram Liebermeister - wolfram.liebermeister@gmail.com
Timo Lubitz - timo.lubitz@hu-berlin.de
Jens Hahn - jens.hahn@hu-berlin.de