Web Service: SBMLmod

Web Service: SBMLmod

Target Namespace: http://sbmlmod.uit.no:8080/sbmlmod

Port SBMLmodSOAP Port type Source code

Location: http://sbmlmod.uit.no:8080/sbmlmod

Protocol: SOAP

Default style: document

Transport protocol: SOAP over HTTP

Operations:

- 1. AddBoundsToKineticLaw Detail Source code
- 2. AddBoundsToKineticLawBase64Encoded Detail Source code
- 3. AddBoundsToKineticLawGzippedBase64Encoded Detail Source code
- 4. AddBoundsToKineticLawText Detail Source code
- 5. AddKineticLawParameter Detail Source code
- 6. GetVersion Detail Source code
- 7. ReplaceGlobalParameters Detail Source code
- 8. ReplaceGlobalParametersBase64Encoded Detail Source code
- 9. ReplaceGlobalParametersGzippedBase64Encoded Detail Source code
- 10. ReplaceGlobalParametersText Detail Source code
- 11. ReplaceInitialConcentrationsOfSpecies Detail Source code
- 12. ReplaceInitialConcentrationsOfSpeciesBase64Encoded Detail Source code
- 13. ReplaceInitialConcentrationsOfSpeciesGzippedBase64Encoded Detail Source code
- 14. ReplaceInitialConcentrationsOfSpeciesText Detail Source code
- 15. ReplaceKineticLawParameter Detail Source code
- 16. ReplaceKineticLawParameterBase64Encoded Detail Source code
- 17. ReplaceKineticLawParameterGzippedBase64Encoded Detail Source code
- 18. ReplaceKineticLawParameterText Detail Source code
- 19. ScaleGlobalParametersBase64Encoded Detail Source code
- 20. ScaleGlobalParametersGzippedBase64Encoded Detail Source code
- 21. ScaleGlobalParametersText Detail Source code
- 22. ScaleKineticLawParameter Detail Source code
- 23. ScaleKineticLawParameterBase64Encoded Detail Source code
- 24. ScaleKineticLawParameterGzippedBase64Encoded Detail Source code
- 25. ScaleKineticLawParameterText Detail Source code
- 26. ValidateSBMLModel Detail Source code
- 27. ValidateSBMLModelBase64Encoded Detail Source code
- 28. ValidateSBMLModelGzippedBase64Encoded Detail Source code
- 29. ValidateSBMLModelText Detail Source code

Operations

Port type SBMLmod Source code

1. AddBoundsToKineticLaw

Source code

Operation type: Request-response. The endpoint receives a message, and sends a correlated message.

SOAP action: http://sbmlmod.uit.no:8080/sbmlmod/AddBoundsToKineticLaw

Input: AddBoundsToKineticLawRequest (soap:body, use = literal) Source code

parameters type AddBoundsToKineticLaw

Adds UPPER_BOUND and LOWER_BOUND to a kinetic law. If there is no kinetic law associated with the reaction, a kinetic law object will also be added to the reaction, before adding the bounds. DefaultUpperBound is by default set to 1000. It is also possible to use different upper bounds for each reaction, e.g. by using gene expression data. These upper bounds can be supplied in the DataFile, and the DataColumnNumber (default=2) will specifies which column in the data file should be used. If a data

file is used, then a mapping file must also be supplied. The mapping file must contain two columns, the first giving the IDs in the SBML model and the second giving the IDs matching the data file. The IDs of the data file are expected to be in column 1. Both the MappingFile and DataFile should contain a header

- SbmlModelFiles unbounded; type string
- DefaultValue optional; type int
 - DataColumnNumber optional; type int
 - MergeMode optional; type MergeModeType type string with restriction enum { 'MAX', 'MIN', 'SUM', 'MEAN', 'MEDIAN', 'CUSTOM' }
 - MappingFile optional; type string
 - DataFile type string
- BatchMode optional; type *boolean*

Output: AddBoundsToKineticLawResponse (soap:body, use = literal) Source code

parameters type AddBoundsToKineticLawResponse

- SbmlModelFiles unbounded; type SbmlModelFilesType
 - Name type *string*
 - SbmlModelFile type *string*
- Warnings optional, unbounded; type *string*

Fault: SBMLmodFault (soap:fault, use = literal) Source code

fault type SBMLmodFault

A fault message, contains the type and free text

- FaultEnum type FaultEnum
- FaultMessage type string

2. AddBoundsToKineticLawBase64Encoded

Source code

Operation type: Request-response. The endpoint receives a message, and sends a correlated message.

SOAP action: http://sbmlmod.uit.no:8080/sbmlmod/AddBoundsToKineticLawBase64Encoded

Input: AddBoundsToKineticLawBase64EncodedRequest (soap:body, use = literal) Source code

parameters type AddBoundsToKineticLawBase64Encoded

- SbmlModelFiles unbounded; type string
- DefaultValue type int
- DataFile optional; type *string*
- DataColumnNumber optional; type int
- MappingFile optional; type string
- MergeMode optional; type MergeModeType type string with restriction enum { 'MAX', 'MIN', 'SUM', 'MEAN', 'MEDIAN', 'CUSTOM' }
- BatchMode optional; type *boolean*

Output: AddBoundsToKineticLawBase64EncodedResponse (soap:body, use = literal) Source code

parameters type AddBoundsToKineticLawBase64EncodedResponse

- SbmlModelFiles unbounded; type SbmlModelFilesType
 - Name type string
 - SbmlModelFile type string
- Warnings optional, unbounded; type *string*

Fault: SBMLmodFault (soap:fault, use = literal) Source code

fault type SBMLmodFault

A fault $\begin{tabular}{ll} \hline \end{tabular}$ A fault $\begin{tabular}{ll} \hline \end{tabular}$ contains the type and free text

- FaultEnum type FaultEnum
- FaultMessage type *string*

3. AddBoundsToKineticLawGzippedBase64Encoded

Source code

Operation type: Request-response. The endpoint receives a message, and sends a correlated message. **SOAP action:** http://sbmlmod.uit.no:8080/sbmlmod/AddBoundsToKineticLawGzippedBase64Encoded

 $\textbf{Input:} \ \, \mathsf{AddBoundsToKineticLawGzippedBase64EncodedRequest} \ \, (\mathsf{soap:body}, \, \mathsf{use} = \mathsf{literal}) \quad \, \\ \mathcal{S}ource \ \, \mathsf{code} \quad \, \\ \mathsf{Source} \ \, \mathsf{code} \quad \, \mathsf{literal}) \quad \, \mathcal{S}ource \ \, \mathsf{code} \quad \, \mathsf{literal}) \quad \, \mathcal{S}ource \ \, \mathsf{literal}) \quad \, \mathcal{S}ource \ \, \mathsf{code} \quad \, \mathsf{literal}) \quad \, \mathcal{S}ource \ \, \mathsf{log} \quad \, \mathsf{literal}) \quad \, \mathcal{S}ource \ \, \mathsf{log} \quad \; \mathsf{log} \quad \, \mathsf{log} \quad \;$

parameters type AddBoundsToKineticLawGzippedBase64Encoded

- SbmlModelFiles unbounded; type *string*
- DefaultValue type int
- DataFile optional; type *string*
- DataColumnNumber optional; type *int*
- MappingFile optional; type *string*
- MergeMode optional; type MergeModeType type string with restriction enum { 'MAX', 'MIN', 'SUM', 'MEAN', 'MEDIAN', 'CUSTOM' }
- BatchMode optional; type *boolean*

Output: AddBoundsToKineticLawGzippedBase64EncodedResponse (soap:body, use = literal) Source code

parameters type AddBoundsToKineticLawGzippedBase64EncodedResponse

- SbmlModelFiles unbounded; type SbmlModelFilesType
 - Name type string

- SbmlModelFile type *string*
- Warnings optional, unbounded; type *string*

Fault: SBMLmodFault (soap:fault, use = literal) Source code

fault type SBMLmodFault

A fault message, contains the type and free text

- FaultEnum type FaultEnum
- FaultMessage type string

4. AddBoundsToKineticLawText

Source code

Operation type: Request-response. The endpoint receives a message, and sends a correlated message.

SOAP action: http://sbmlmod.uit.no:8080/sbmlmod/AddBoundsToKineticLawText

Input: AddBoundsToKineticLawTextRequest (soap:body, use = literal) Source code

$\textbf{parameters} \ \mathsf{type} \ \textit{AddBoundsToKineticLawText}$

- SbmlModelFiles unbounded; type *string*
- DefaultValue type int
- DataFile optional; type *string*
- DataColumnNumber optional; type int
- MappingFile optional; type *string*
- MergeMode optional; type MergeModeType type string with restriction enum { 'MAX', 'MIN', 'SUM', 'MEAN', 'MEDIAN', 'CUSTOM' }
- BatchMode optional; type boolean

Output: AddBoundsToKineticLawTextResponse (soap:body, use = literal) Source code

parameters type AddBoundsToKineticLawTextResponse

- SbmlModelFiles unbounded; type SbmlModelFilesType
 - Name type string
 - SbmlModelFile type *string*
- Warnings optional, unbounded; type *string*

Fault: SBMLmodFault (soap:fault, use = literal) Source code

fault type SBMLmodFault

A fault message, contains the type and free text

- FaultEnum type FaultEnum
- FaultMessage type *string*

5. AddKineticLawParameter

Source code

Operation type: Request-response. The endpoint receives a message, and sends a correlated message.

SOAP action: http://sbmlmod.uit.no:8080/sbmlmod/AddKineticLawParameter

Input: AddKineticLawParameterRequest (soap:body, use = literal) Source code

parameters type AddKineticLawParameter

Adds a new parameter to a kinetic law. If there is no kinetic law associated with the reaction, a kinetic law object will also be added to the reaction, before adding the parameter. The values of the new parameter for the different reactions should be in a tab delimited text file (Datafile). A mapping is then done between the datafile and the SBML model using the supplied mapping file. The mapping file must contain two columns, the first giving the IDs in the SBML model and the second giving the IDs matching the IDs of the DataFile. SBML model file, mapping file and data file must be given as input, as well as the ID of the parameter will be added. The IDs of the data file are expected to be in column 1. By default the IdColumnNumber=2, which means that the data in column 2 of the DataFile will be used by default values for the new parameter. Both the MappingFile and DataFile should contain a header.

- SbmlModelFiles unbounded; type *string*
- ParameterId type *string*
- DefaultValue optional; type int
 - DataColumnNumber optional; type int
 - MergeMode optional; type MergeModeType type string with restriction enum { 'MAX', 'MIN', 'SUM', 'MEAN', 'MEDIAN', 'CUSTOM' }
 - MappingFile optional; type *string*
 - DataFile type string
- BatchMode optional; type *boolean*

Output: AddKineticLawParameterResponse (soap:body, use = literal) Source code

parameters type AddKineticLawParameterResponse

- SbmlModelFiles unbounded; type SbmlModelFilesType
 - Name type *string*
 - SbmlModelFile type *string*
- Warnings optional, unbounded; type *string*

Fault: SBMLmodFault (soap:fault, use = literal) Source code

fault type SBMLmodFault

A fault message, contains the type and free text

■ FaultEnum type FaultEnum

■ FaultMessage type *string*

6. GetVersion

Source code

Operation type: Request-response. The endpoint receives a message, and sends a correlated message.

SOAP action: http://sbmlmod.uit.no:8080/sbmlmod/GetVersion

Input: GetVersionRequest (soap:body, use = literal) Source code

parameters type GetVersion

Returns the webservice version.

Output: GetVersionResponse (soap:body, use = literal) Source code

parameters type GetVersionResponse

Version type string

7. ReplaceGlobalParameters

Source code

Operation type: Request-response. The endpoint receives a message, and sends a correlated message.

SOAP action: http://sbmlmod.uit.no:8080/sbmlmod/ReplaceGlobalParameters

Input: ReplaceGlobalParametersRequest (soap:body, use = literal) Source code

parameters type ReplaceGlobalParameters

Replaces the values of the global parameters in the SBML model with the supplied values from the datafile. The mapping file must contain two columns, the first giving the IDs in the SBML model and the second giving the IDs matching the IDs of the DataFile. SBML model file and data file must be given as input. If mapping file is not given as input, the IDs in the datafile are expected to be the same as in the model. The IDs of the data file are expected to be in column 1 and they must exactly match the id's of the parameters in the SBML file'. By default the IdColumnNumber=2, which means that the data in column 2 of the DataFile will be used by default. The DataFile should contain a header.

- DataColumnNumber optional; type int
- SbmlModelFiles unbounded; type string
- DataFile type *string*
- MappingFile optional; type *string*
- MergeMode optional; type MergeModeType type string with restriction enum { 'MAX', 'MIN', 'SUM', 'MEAN', 'MEDIAN', 'CUSTOM' }
- BatchMode optional; type *boolean*

Output: ReplaceGlobalParametersResponse (soap:body, use = literal) Source code

parameters type ReplaceGlobalParametersResponse

- SbmlModelFiles unbounded; type SbmlModelFilesType
 - Name type *string*
 - SbmlModelFile type *string*
- Warnings optional, unbounded; type *string*

Fault: SBMLmodFault (soap:fault, use = literal) Source code

fault type SBMLmodFault

A fault message, contains the type and free text

- FaultEnum type *FaultEnum*
- FaultMessage type *string*

8. ReplaceGlobalParametersBase64Encoded

Source code

Operation type: Request-response. The endpoint receives a message, and sends a correlated message.

 $\textbf{SOAP action:} \quad http://sbmlmod.uit.no:8080/sbmlmod/ReplaceGlobalParametersBase64Encoded$

Input: ReplaceGlobalParametersBase64EncodedRequest (soap:body, use = literal) Source code

parameters type ReplaceGlobalParametersBase64Encoded

- SbmlModelFiles unbounded; type *string*
- DataFile type string
- DataColumnNumber optional; type int
- MergeMode optional; type MergeModeType type string with restriction enum { 'MAX', 'MIN', 'SUM', 'MEAN', 'MEDIAN', 'CUSTOM' }
- MappingFile optional; type string
- BatchMode optional; type *boolean*

Output: ReplaceGlobalParametersBase64EncodedResponse (soap:body, use = literal) *Source code*

${\bf parameters}\ {\bf type}\ Replace Global Parameters Base 64 Encoded Response$

- SbmlModelFiles unbounded; type SbmlModelFilesType
 - Name type *string*
 - SbmlModelFile type string
- Warnings optional, unbounded; type *string*

Fault: SBMLmodFault (soap:fault, use = literal) Source code

fault type SBMLmodFault

A fault message, contains the type and free text

- FaultEnum type FaultEnum
- FaultMessage type *string*

9. ReplaceGlobalParametersGzippedBase64Encoded

Source code

Operation type: Request-response. The endpoint receives a message, and sends a correlated message. **SOAP action:** http://sbmlmod.uit.no:8080/sbmlmod/ReplaceGlobalParametersGzippedBase64Encoded

Input: ReplaceGlobalParametersGzippedBase64EncodedRequest (soap:body, use = literal) Source code

parameters type ReplaceGlobalParametersGzippedBase64Encoded

- SbmlModelFiles unbounded; type *string*
- DataFile type string
- DataColumnNumber optional; type int
- MergeMode optional; type MergeModeType type string with restriction enum { 'MAX', 'MIN', 'SUM', 'MEAN', 'MEDIAN', 'CUSTOM' }
- MappingFile optional; type *string*
- BatchMode optional; type *boolean*

Output: ReplaceGlobalParametersGzippedBase64EncodedResponse (soap:body, use = literal) Source code

parameters type ReplaceGlobalParametersGzippedBase64EncodedResponse

- SbmlModelFiles unbounded; type SbmlModelFilesType
 - Name type *string*
 - SbmlModelFile type *string*
- Warnings optional, unbounded; type *string*

Fault: SBMLmodFault (soap:fault, use = literal) Source code

fault type SBMLmodFault

A fault message, contains the type and free text

- FaultEnum type FaultEnum
- FaultMessage type *string*

10. ReplaceGlobalParametersText

Source code

Operation type: Request-response. The endpoint receives a message, and sends a correlated message.

 $\textbf{SOAP action:} \ \ http://sbmlmod.uit.no:8080/sbmlmod/ReplaceGlobalParametersText$

Input: ReplaceGlobalParametersTextRequest (soap:body, use = literal) *Source code*

${\bf parameters} \ {\bf type} \ {\it ReplaceGlobalParametersText}$

- SbmlModelFiles unbounded; type *string*
- DataFile type string
- DataColumnNumber optional; type int
- MergeMode optional; type MergeModeType type string with restriction enum { 'MAX', 'MIN', 'SUM', 'MEAN', 'MEDIAN', 'CUSTOM' }
- MappingFile optional; type *string*
- BatchMode optional; type boolean

Output: ReplaceGlobalParametersTextResponse (soap:body, use = literal) *Source code*

parameters type ReplaceGlobalParametersTextResponse

- SbmlModelFiles unbounded; type SbmlModelFilesType
 - Name type *string*
 - SbmlModelFile type *string*
- Warnings optional, unbounded; type *string*

Fault: SBMLmodFault (soap:fault, use = literal) Source code

fault type SBMLmodFault

A fault message, contains the type and free text

- FaultEnum type FaultEnum
- FaultMessage type *string*

11. ReplaceInitialConcentrationsOfSpecies

Source code

Operation type: Request-response. The endpoint receives a message, and sends a correlated message.

SOAP action: http://sbmlmod.uit.no:8080/sbmlmod/ReplaceInitialConcentrationsOfSpecies

Input: ReplaceInitialConcentrationsOfSpeciesRequest (soap:body, use = literal) Source code

parameters type ReplaceInitialConcentrationsOfSpecies

Edits the initial concentrations of species. Input is the SBML file and a file containing two columns, the first giving the Species ID and the second giving the new concentration value.

- SbmlModelFiles unbounded; type string
- DataFile type *string*
- MappingFile optional; type *string*

- DataColumnNumber optional; type int
- BatchMode optional; type boolean

Output: ReplaceInitialConcentrationsOfSpeciesResponse (soap:body, use = literal) Source code

parameters type ReplaceInitialConcentrationsOfSpeciesResponse

- SbmlModelFiles unbounded; type SbmlModelFilesType
 - Name type string
 - SbmlModelFile type *string*
- Warnings optional, unbounded; type *string*

Fault: SBMLmodFault (soap:fault, use = literal) Source code

fault type SBMLmodFault

A fault message, contains the type and free text

- FaultEnum type FaultEnum
- FaultMessage type *string*

12. ReplaceInitialConcentrationsOfSpeciesBase64Encoded

Source code

Operation type: Request-response. The endpoint receives a message, and sends a correlated message. **SOAP action:** http://sbmlmod.uit.no:8080/sbmlmod/ReplaceInitialConcentrationsOfSpeciesBase64Encoded

Input: ReplaceInitialConcentrationsOfSpeciesBase64EncodedRequest (soap:body, use = literal) Source code

parameters type ReplaceInitialConcentrationsOfSpeciesBase64Encoded

- SbmlModelFiles unbounded; type string
- DataFile type *string*
- DataColumnNumber optional; type int
- MappingFile optional; type *string*
- BatchMode optional; type *boolean*

Output: ReplaceInitialConcentrationsOfSpeciesBase64EncodedResponse (soap:body, use = literal) Source code

parameters type ReplaceInitialConcentrationsOfSpeciesBase64EncodedResponse

- SbmlModelFiles unbounded; type SbmlModelFilesType
 - Name type string
 - SbmlModelFile type *string*
- Warnings optional, unbounded; type *string*

Fault: SBMLmodFault (soap:fault, use = literal) Source code

fault type SBMLmodFault

A fault message, contains the type and free text

- FaultEnum type FaultEnum
- FaultMessage type *string*

${\tt 13.} \ \ \textbf{ReplaceInitialConcentrationsOfSpeciesGzippedBase 64Encoded}$

Source code

Operation type: Request-response. The endpoint receives a message, and sends a correlated message.

 $\textbf{SOAP action:} \quad \text{http://sbmlmod.uit.no:} 8080/\text{sbmlmod/ReplaceInitialConcentrationsOfSpeciesGzippedBase64Encoded}$

Input: ReplaceInitialConcentrationsOfSpeciesGzippedBase64EncodedRequest (soap:body, use = literal) Source code

parameters type ReplaceInitialConcentrationsOfSpeciesGzippedBase64Encoded

- SbmlModelFiles unbounded; type *string*
- DataFile type string
- DataColumnNumber optional; type int
- MappingFile optional; type string
- BatchMode optional; type boolean

Output: ReplaceInitialConcentrationsOfSpeciesGzippedBase64EncodedResponse (soap:body, use = literal) Source code

parameters type ReplaceInitialConcentrationsOfSpeciesGzippedBase64EncodedResponse

- SbmlModelFiles unbounded; type SbmlModelFilesType
 - Name type string
 - SbmlModelFile type string
- Warnings optional, unbounded; type *string*

Fault: SBMLmodFault (soap:fault, use = literal) Source code

fault type SBMLmodFault

A fault message, contains the type and free text

- FaultEnum type FaultEnum
- FaultMessage type *string*

14. ReplaceInitialConcentrationsOfSpeciesText

Source code

Operation type: Request-response. The endpoint receives a message, and sends a correlated message.

SOAP action: http://sbmlmod.uit.no:8080/sbmlmod/ReplaceInitialConcentrationsOfSpeciesText

Input: ReplaceInitialConcentrationsOfSpeciesTextRequest (soap:body, use = literal) Source code

parameters type ReplaceInitialConcentrationsOfSpeciesText

- SbmlModelFiles unbounded; type *string*
- DataFile type string
- DataColumnNumber optional; type int
- MappingFile optional; type *string*
- BatchMode optional; type *boolean*

Output: ReplaceInitialConcentrationsOfSpeciesTextResponse (soap:body, use = literal) Source code

parameters type ReplaceInitialConcentrationsOfSpeciesTextResponse

- SbmlModelFiles unbounded; type SbmlModelFilesType
 - Name type *string*
 - SbmlModelFile type string
- Warnings optional, unbounded; type *string*

Fault: SBMLmodFault (soap:fault, use = literal) Source code

fault type SBMLmodFault

A fault message, contains the type and free text

- FaultEnum type FaultEnum
- FaultMessage type *string*

15. ReplaceKineticLawParameter

Source code

Operation type: Request-response. The endpoint receives a message, and sends a correlated message.

SOAP action: http://sbmlmod.uit.no:8080/sbmlmod/ReplaceKineticLawParameter

Input: ReplaceKineticLawParameterRequest (soap:body, use = literal) Source code

parameters type ReplaceKineticLawParameter

Maps data between SBML model parameter and some columnbased data (e.g. gene expression data). The mapping file must contain two columns, the first giving the IDs in the SBML model and the second giving the IDs matching the IDs of the DataFile. SBML model file, mapping file and data file must be given as input, as well as the ID of the parameter that will gets its value replaced. The IDs of the data file are expected to be in column 1. By default the IdColumnNumber=2, which means that the data in column 2 of the DataFile will be used by default. Both the MappingFile and DataFile should contain a header.

- ParameterId type *string*
- DataColumnNumber optional; type int
- MergeMode optional; type MergeModeType type string with restriction enum { 'MAX', 'MIN', 'SUM', 'MEAN', 'MEDIAN', 'CUSTOM' }
- SbmlModelFiles unbounded; type *string*
- DataFile type *string*
- MappingFile optional; type string
- BatchMode optional; type *boolean*

Output: ReplaceKineticLawParameterResponse (soap:body, use = literal) Source code

parameters type ReplaceKineticLawParameterResponse

- SbmlModelFiles unbounded; type SbmlModelFilesType
 - Name type string
 - SbmlModelFile type *string*
- Warnings optional, unbounded; type *string*

Fault: SBMLmodFault (soap:fault, use = literal) Source code

fault type SBMLmodFault

A fault message, contains the type and free text

- FaultEnum type FaultEnum
- FaultMessage type *string*

16. ReplaceKineticLawParameterBase64Encoded

Source code

Operation type: Request-response. The endpoint receives a message, and sends a correlated message.

 $\textbf{SOAP action:} \quad \text{http://sbmlmod.uit.no:} 8080/sbmlmod/ReplaceKineticLawParameterBase64Encoded$

Input: ReplaceKineticLawParameterBase64EncodedRequest (soap:body, use = literal) Source code

parameters type ReplaceKineticLawParameterBase64Encoded

- SbmlModelFiles unbounded; type *string*
- ParameterId type *string*
- DataFile type *string*
- DataColumnNumber optional; type int
- MappingFile optional; type *string*
- MergeMode optional; type MergeModeType type string with restriction enum { 'MAX', 'MIN', 'SUM', 'MEAN', 'MEDIAN', 'CUSTOM' }
- BatchMode optional; type *boolean*

Output: ReplaceKineticLawParameterBase64EncodedResponse (soap:body, use = literal) Source code

parameters type ReplaceKineticLawParameterBase64EncodedResponse

- SbmlModelFiles unbounded; type SbmlModelFilesType
 - Name type *string*
 - SbmlModelFile type string
- Warnings optional, unbounded; type *string*

Fault: SBMLmodFault (soap:fault, use = literal) Source code

fault type SBMLmodFault

A fault message, contains the type and free text

- FaultEnum type FaultEnum
- FaultMessage type *string*

17. ReplaceKineticLawParameterGzippedBase64Encoded

Source code

Operation type: Request-response. The endpoint receives a message, and sends a correlated message. **SOAP action:** http://sbmlmod.uit.no:8080/sbmlmod/ReplaceKineticLawParameterGzippedBase64Encoded

Input: ReplaceKineticLawParameterGzippedBase64EncodedRequest (soap:body, use = literal) Source code

parameters type ReplaceKineticLawParameterGzippedBase64Encoded

- SbmlModelFiles unbounded; type string
- ParameterId type string
- DataFile type *string*
- DataColumnNumber optional; type int
- MappingFile optional; type *string*
- MergeMode optional; type MergeModeType type string with restriction enum { 'MAX', 'MIN', 'SUM', 'MEAN', 'MEDIAN', 'CUSTOM' }
- BatchMode optional; type *boolean*

Output: ReplaceKineticLawParameterGzippedBase64EncodedResponse (soap:body, use = literal) Source code

parameters type ReplaceKineticLawParameterGzippedBase64EncodedResponse

- SbmlModelFiles unbounded; type SbmlModelFilesType
 - Name type string
 - SbmlModelFile type *string*
- Warnings optional, unbounded; type *string*

Fault: SBMLmodFault (soap:fault, use = literal) Source code

fault type SBMLmodFault

A fault message, contains the type and free text

- FaultEnum type FaultEnum
- FaultMessage type string

18. ReplaceKineticLawParameterText

Source code

Operation type: Request-response. The endpoint receives a message, and sends a correlated message.

SOAP action: http://sbmlmod.uit.no:8080/sbmlmod/ReplaceKineticLawParameterText

Input: ReplaceKineticLawParameterTextRequest (soap:body, use = literal) Source code

parameters type ReplaceKineticLawParameterText

- SbmlModelFiles unbounded; type string
- ParameterId type *string*
- DataFile type *string*
- DataColumnNumber optional; type *int*
- MappingFile optional; type *string*
- MergeMode optional; type MergeModeType type string with restriction enum { 'MAX', 'MIN', 'SUM', 'MEAN', 'MEDIAN', 'CUSTOM' }
- BatchMode optional; type *boolean*

Output: ReplaceKineticLawParameterTextResponse (soap:body, use = literal) Source code

parameters type ReplaceKineticLawParameterTextResponse

- SbmlModelFiles unbounded; type SbmlModelFilesType
 - Name type *string*
 - SbmlModelFile type string
- Warnings optional, unbounded; type *string*

Fault: SBMLmodFault (soap:fault, use = literal) *Source code*

fault type SBMLmodFault

A fault message, contains the type and free text

- FaultEnum type FaultEnum
- FaultMessage type *string*

19. ScaleGlobalParametersBase64Encoded

Source code

Operation type: Request-response. The endpoint receives a message, and sends a correlated message.

SOAP action: http://sbmlmod.uit.no:8080/sbmlmod/ScaleGlobalParametersBase64Encoded

Input: ScaleGlobalParametersBase64EncodedRequest (soap:body, use = literal) Source code

parameters type ScaleGlobalParametersBase64Encoded

- SbmlModelFiles unbounded; type *string*
- DataFile type string
- DataColumnNumber optional; type int
- MappingFile optional; type *string*
- MergeMode optional; type MergeModeType type string with restriction enum { 'MAX', 'MIN', 'SUM', 'MEAN', 'MEDIAN', 'CUSTOM' }
- BatchMode optional; type *boolean*

Output: ScaleGlobalParametersBase64EncodedResponse (soap:body, use = literal) Source code

parameters type ScaleGlobalParametersBase64EncodedResponse

- SbmlModelFiles unbounded; type SbmlModelFilesType
 - Name type *string*
 - SbmlModelFile type *string*
- Warnings optional, unbounded; type *string*

Fault: SBMLmodFault (soap:fault, use = literal) Source code

fault type SBMLmodFault

A fault message, contains the type and free text

- FaultEnum type FaultEnum
- FaultMessage type *string*

20. ScaleGlobalParametersGzippedBase64Encoded

Source code

Operation type: Request-response. The endpoint receives a message, and sends a correlated message. **SOAP action:** http://sbmlmod.uit.no:8080/sbmlmod/ScaleGlobalParametersGzippedBase64Encoded

Input: ScaleGlobalParametersGzippedBase64EncodedRequest (soap:body, use = literal) Source code

parameters type ScaleGlobalParametersGzippedBase64Encoded

- SbmlModelFiles unbounded; type *string*
- DataFile type *string*
- DataColumnNumber optional; type int
- MappingFile optional; type *string*
- MergeMode optional; type MergeModeType type string with restriction enum { 'MAX', 'MIN', 'SUM', 'MEAN', 'MEDIAN', 'CUSTOM' }
- BatchMode optional; type boolean

Output: ScaleGlobalParametersGzippedBase64EncodedResponse (soap:body, use = literal) Source code

parameters type ScaleGlobalParametersGzippedBase64EncodedResponse

- SbmlModelFiles unbounded; type SbmlModelFilesType
 - Name type string
 - SbmlModelFile type *string*
- Warnings optional, unbounded; type *string*

Fault: SBMLmodFault (soap:fault, use = literal) Source code

fault type SBMLmodFault

A fault message, contains the type and free text

- FaultEnum type FaultEnum
- FaultMessage type string

21. ScaleGlobalParametersText

Source code

 $\textbf{Operation type:} \ \textit{Request-response}. \ \textbf{The endpoint receives a message, and sends a correlated message}.$

SOAP action: http://sbmlmod.uit.no:8080/sbmlmod/ScaleGlobalParametersText

Input: ScaleGlobalParametersTextRequest (soap:body, use = literal) Source code

parameters type ScaleGlobalParametersText

- SbmlModelFiles unbounded; type string
- DataFile type *string*
- DataColumnNumber optional; type int
- MappingFile optional; type *string*
- MergeMode optional; type MergeModeType type string with restriction enum { 'MAX', 'MIN', 'SUM', 'MEAN', 'MEDIAN', 'CUSTOM' }
- BatchMode optional; type *boolean*

Output: ScaleGlobalParametersTextResponse (soap:body, use = literal) Source code

parameters type ScaleGlobalParametersTextResponse

- SbmlModelFiles unbounded; type SbmlModelFilesType
 - Name type *string*
 - SbmlModelFile type string
- Warnings optional, unbounded; type *string*

Fault: SBMLmodFault (soap:fault, use = literal) Source code

fault type SBMLmodFault

A fault message, contains the type and free text

- FaultEnum type FaultEnum
- FaultMessage type *string*

22. ScaleKineticLawParameter

Source code

Operation type: Request-response. The endpoint receives a message, and sends a correlated message.

SOAP action: http://sbmlmod.uit.no:8080/sbmlmod/ScaleKineticLawParameter

Input: ScaleKineticLawParameterRequest (soap:body, use = literal) Source code

parameters type ScaleKineticLawParameter

Multiplies a kinetic law parameter with supplied columnbased data file (e.g. gene expression data). The mapping file must contain two columns, the first giving the IDs in the SBML model and the second giving the IDs matching the IDs of the DataFile. SBML model file, mapping file and data file must be given as input, as well as the ID of the parameter that will gets its value scaled. The IDs of the data file are expected to be in column 1. By default the IdColumnNumber=2, which means that the data in column 2 of the DataFile will be used by default. Both the MappingFile and DataFile should contain a header

- ParameterId type *string*
- DataColumnNumber optional; type int
- MergeMode type *string*
- SbmlModelFiles unbounded; type string
- DataFile type *string*
- MappingFile optional; type string
- BatchMode optional; type *boolean*

Output: ScaleKineticLawParameterResponse (soap:body, use = literal) Source code

parameters type ScaleKineticLawParameterResponse

- SbmlModelFiles unbounded; type SbmlModelFilesType
 - Name type string
 - SbmlModelFile type string
- Warnings optional, unbounded; type *string*

Fault: SBMLmodFault (soap:fault, use = literal) Source code

fault type SBMLmodFault

A fault message, contains the type and free text

- FaultEnum type FaultEnum
- FaultMessage type *string*

23. ScaleKineticLawParameterBase64Encoded

Source code

Operation type: Request-response. The endpoint receives a message, and sends a correlated message.

 $\textbf{SOAP action:} \ \ http://sbmlmod.uit.no:8080/sbmlmod/ScaleKineticLawParameterBase64Encoded$

Input: ScaleKineticLawParameterBase64EncodedRequest (soap:body, use = literal) Source code

parameters type ScaleKineticLawParameterBase64Encoded

- SbmlModelFiles unbounded; type *string*
- ParameterId type string
- DataFile type *string*
- DataColumnNumber optional; type int
- MappingFile optional; type string
- MergeMode optional; type MergeModeType type string with restriction enum { 'MAX', 'MIN', 'SUM', 'MEAN', 'MEDIAN', 'CUSTOM' }
- BatchMode optional; type *boolean*

Output: ScaleKineticLawParameterBase64EncodedResponse (soap:body, use = literal) Source code

parameters type ScaleKineticLawParameterBase64EncodedResponse

- SbmlModelFiles unbounded; type SbmlModelFilesType
 - Name type string
 - SbmlModelFile type *string*
- Warnings optional, unbounded; type *string*

Fault: SBMLmodFault (soap:fault, use = literal) Source code

fault type SBMLmodFault

A fault message, contains the type and free text

- FaultEnum type FaultEnum
- FaultMessage type *string*

24. ScaleKineticLawParameterGzippedBase64Encoded

Source code

Operation type: Request-response. The endpoint receives a message, and sends a correlated message.

SOAP action: http://sbmlmod.uit.no:8080/sbmlmod/ScaleKineticLawParameterGzippedBase64Encoded

Input: ScaleKineticLawParameterGzippedBase64EncodedRequest (soap:body, use = literal) Source code

parameters type ScaleKineticLawParameterGzippedBase64Encoded

- SbmlModelFiles unbounded; type *string*
- ParameterId type string
- DataFile type string
- DataColumnNumber optional; type int
- MappingFile optional; type string
- MergeMode optional; type MergeModeType type string with restriction enum { 'MAX', 'MIN', 'SUM', 'MEAN', 'MEDIAN', 'CUSTOM' }
- BatchMode optional; type *boolean*

Output: ScaleKineticLawParameterGzippedBase64EncodedResponse (soap:body, use = literal) Source code

parameters type ScaleKineticLawParameterGzippedBase64EncodedResponse

- SbmlModelFiles unbounded; type SbmlModelFilesType
 - Name type string
 - SbmlModelFile type *string*
- Warnings optional, unbounded; type *string*

Fault: SBMLmodFault (soap:fault, use = literal) Source code

fault type SBMLmodFault

A fault message, contains the type and free text

- FaultEnum type *FaultEnum*
- FaultMessage type *string*

25. ScaleKineticLawParameterText

Source code

Operation type: Request-response. The endpoint receives a message, and sends a correlated message.

SOAP action: http://sbmlmod.uit.no:8080/sbmlmod/ScaleKineticLawParameterText

Input: ScaleKineticLawParameterTextRequest (soap:body, use = literal) *Source code*

parameters type ScaleKineticLawParameterText

- SbmlModelFiles unbounded; type string
- ParameterId type *string*
- DataFile type *string*
- DataColumnNumber optional; type int
- MappingFile optional; type string
- MergeMode optional; type MergeModeType type string with restriction enum { 'MAX', 'MIN', 'SUM', 'MEAN', 'MEDIAN', 'CUSTOM' }
- BatchMode optional; type *boolean*

Output: ScaleKineticLawParameterTextResponse (soap:body, use = literal) Source code

parameters type ScaleKineticLawParameterTextResponse

- SbmlModelFiles unbounded; type SbmlModelFilesType
 - Name type string
 - SbmlModelFile type *string*
- Warnings optional, unbounded; type *string*

Fault: SBMLmodFault (soap:fault, use = literal) Source code

 $\textbf{fault} \ \mathsf{type} \ \textit{SBMLmodFault}$

A fault message, contains the type and free text

- FaultEnum type FaultEnum
- FaultMessage type string

26. ValidateSBMLModel

Source code

Operation type: Request-response. The endpoint receives a message, and sends a correlated message.

SOAP action: http://sbmlmod.uit.no:8080/sbmlmod/ValidateSBMLModel

Input: ValidateSBMLModelRequest (soap:body, use = literal) Source code

parameters type ValidateSBMLModel

Validates an SBML model.

SbmlModelFile type string

Output: ValidateSBMLModelResponse (soap:body, use = literal) Source code

parameters type ValidateSBMLModelResponse

Returns true if the SBML model is valid or returns the first error encountered.

- ModellsValid type *boolean*
- ErrorMessages optional, unbounded; type string

Fault: SBMLmodFault (soap:fault, use = literal) Source code

fault type SBMLmodFault

A fault message, contains the type and free text

■ FaultEnum type FaultEnum

27. ValidateSBMLModelBase64Encoded

Source code

Operation type: Request-response. The endpoint receives a message, and sends a correlated message.

SOAP action: http://sbmlmod.uit.no:8080/sbmlmod/ValidateSBMLModelBase64Encoded

Input: ValidateSBMLModelBase64EncodedRequest (soap:body, use = literal) Source code

parameters type ValidateSBMLModelBase64Encoded

■ SbmlModelFile type *string*

Output: ValidateSBMLModelBase64EncodedResponse (soap:body, use = literal) Source code

parameters type ValidateSBMLModelBase64EncodedResponse

■ ModellsValid type boolean

■ ErrorMessages - optional, unbounded; type *string*

Fault: SBMLmodFault (soap:fault, use = literal) Source code

fault type SBMLmodFault

A fault message, contains the type and free text

- FaultEnum type FaultEnum
- FaultMessage type *string*

28. ValidateSBMLModelGzippedBase64Encoded

Source code

Operation type: Request-response. The endpoint receives a message, and sends a correlated message. **SOAP action:** http://sbmlmod.uit.no:8080/sbmlmod/ValidateSBMLModelGzippedBase64Encoded

Input: ValidateSBMLModelGzippedBase64EncodedRequest (soap:body, use = literal) Source code

parameters type ValidateSBMLModelGzippedBase64Encoded

■ SbmlModelFile type string

Output: ValidateSBMLModelGzippedBase64EncodedResponse (soap:body, use = literal) Source code

parameters type ValidateSBMLModelGzippedBase64EncodedResponse

■ ModelIsValid type *boolean*

■ ErrorMessages - optional, unbounded; type *string*

Fault: SBMLmodFault (soap:fault, use = literal) Source code

fault type SBMLmodFault

A fault message, contains the type and free text

■ FaultEnum type FaultEnum

■ FaultMessage type *string*

29. ValidateSBMLModelText

Source code

Operation type: Request-response. The endpoint receives a message, and sends a correlated message.

 $\textbf{SOAP action:} \ \ http://sbmlmod.uit.no:8080/sbmlmod/ValidateSBMLModelText$

Input: ValidateSBMLModelTextRequest (soap:body, use = literal) Source code

parameters type ValidateSBMLModelText

■ SbmlModelFile type *string*

Output: ValidateSBMLModelTextResponse (soap:body, use = literal) Source code

parameters type ValidateSBMLModelTextResponse

■ ModellsValid type boolean

■ ErrorMessages - optional, unbounded; type *string*

Fault: SBMLmodFault (soap:fault, use = literal) Source code

fault type SBMLmodFault

A fault message, contains the type and free text

- FaultEnum type FaultEnum
- FaultMessage type *string*

WSDL source code

<?xml version="1.0"?>

```
xmlns:sawsdl="http://www.w3.org/ns/sawsdl"
xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:wsdl="http://schemas.xmlsoap.org/wsdl/"
xmlns:tns="http://sbmlmod.uit.no:8080/sbmlmod"
xmlns:soap="http://schemas.xmlsoap.org/wsdl/soap/"
<wsdl:types>
       <xsd:schema targetNamespace="http://sbmlmod.uit.no:8080/sbmlmod">
              <xsd:simpleType name="MergeModeType">
                     <xsd:restriction base="xsd:string">
                            <xsd:enumeration value="MAX" />
                            <xsd:enumeration value="MIN" />
                            <xsd:enumeration value="SUM" />
                            <xsd:enumeration value="MEAN" />
                            <xsd:enumeration value="MEDIAN" />
                            <xsd:enumeration value="CUSTOM" />
                     </xsd:restriction>
              </xsd:simpleType>
              <xsd:element name="ReplaceGlobalParameters">
                     <xsd:annotation>
                            <xsd:documentation> Replaces the values of the global parameters in the SBML model with the
                            supplied values from the datafile. The mapping file must contain two columns, the first giving the
                            IDs in the SBML model and the second giving the IDs matching the IDs of the DataFile. SBML
                            model file and data file must be given as input. If mapping file is not given as input, the IDs in the
                            datafile are expected to be the same as in the model. The IDs of the data file are expected to be
                            in column 1 and they must exactly match the id's of the parameters in the SBML file'. By default
                            the IdColumnNumber=2, which means that the data in column 2 of the DataFile will be used by
                            default. The DataFile should contain a header. </xsd:documentation>
                     </xsd:annotation>
                     <xsd:complexType>
                            <xsd:sequence>
                                   <xsd:element name="DataColumnNumber" type="xsd:int" minOccurs="0" maxOccurs="1" />
                                   <xsd:element name="SbmlModelFiles" type="xsd:string"</p>
                                   sawsdl:modelReference="http://edamontology.org/data_0950
                                   http://edamontology.org/format_2585 http://wsio.org/transfer_011 http://wsio.org/compression_022"
                                   maxOccurs="unbounded" minOccurs="1" />
                                   <xsd:element name="DataFile" type="xsd:string"</pre>
                                   sawsdl:modelReference="http://edamontology.org/data 0006 http://filext.com/file-extension/TSV
                                   http://wsio.org/transfer_011 http://wsio.org/compression_022" />
                                   <xsd:element name="MappingFile" type="xsd:string" minOccurs="0" maxOccurs="1"</pre>
                                   sawsdl:modelReference="http://edamontology.org/data_0006 http://filext.com/file-extension/TSV
                                   http://wsio.org/transfer_011 http://wsio.org/compression_022" />
                                   <xsd:element name="MergeMode" type="tns:MergeModeType" maxOccurs="1"</pre>
                                   minOccurs="0" />
                                   <xsd:element name="BatchMode" type="xsd:boolean" maxOccurs="1" minOccurs="0" />
                            </xsd:sequence>
                     </xsd:complexType>
              </r>

<
              <xsd:element name="ReplaceGlobalParametersResponse">
                     <xsd:complexType>
                                   <xsd:element name="SbmlModelFiles" type="tns:SbmlModelFilesType"</pre>
                                   sawsdl:modelReference="http://edamontology.org/data_0950
                                   http://edamontology.org/format_2585_http://wsio.org/transfer_011_http://wsio.org/compression_022"
                                   maxOccurs="unbounded" minOccurs="1" />
                                   <xsd:element name="Warnings" type="xsd:string" minOccurs="0" maxOccurs="unbounded"
sawsdl:modelReference="http://edamontology.org/data_0006 http://purl.org/edam/format/ANY</pre>
                                   http://purl.org/webservices/transfer/INLINE http://purl.org/webservices/archive-
                                   method/PLAIN_TEXT" />
                            </xsd:sequence>
                     </xsd:complexType>
              </xsd:element>
              <xsd:element name="ReplaceKineticLawParameter">
                     <xsd:annotation>
                            xsd:documentation> Maps data between SBML model parameter and some columnbased data
                            (e.g. gene expression data). The mapping file must contain two columns, the first giving the IDs in
                            the SBML model and the second giving the IDs matching the IDs of the DataFile. SBML model file,
                            mapping file and data file must be given as input, as well as the ID of the parameter that will gets
                            its value replaced. The IDs of the data file are expected to be in column 1. By default the
                            IdColumnNumber=2, which means that the data in column 2 of the DataFile will be used by default.
                            Both the MappingFile and DataFile should contain a header. </xsd:documentation>
                     </xsd:annotation>
                     <xsd:complexType>
```

```
<xsd:sequence>
                    <xsd:element name="ParameterId" type="xsd:string" />
                    <xsd:element name="DataColumnNumber" type="xsd:int" minOccurs="0" maxOccurs="1" />
                    <!-- xsd:element name="MergeMode" type="xsd:string" / -->
                    <xsd:element name="MergeMode" type="tns:MergeModeType" minOccurs="0"</pre>
                    maxOccurs="1" />
                    <xsd:element name="SbmlModelFiles" type="xsd:string"</p>
                    sawsdl:modelReference="http://edamontology.org/data_0950
                    http://edamontology.org/format_2585 http://wsio.org/transfer_011 http://wsio.org/compression_022"
                    maxOccurs="unbounded" minOccurs="1" />
                    <xsd:element name="DataFile" type="xsd:string"</pre>
                    sawsdl:modelReference="http://edamontology.org/data_0006 http://filext.com/file-extension/TSV
                    http://wsio.org/transfer_011 http://wsio.org/compression_022" />
                    <xsd:element name="MappingFile" type="xsd:string" minOccurs="0" maxOccurs="1"</p>
                    sawsdl:modelReference="http://edamontology.org/data_0006 http://filext.com/file-extension/TSV
                    http://wsio.org/transfer_011 http://wsio.org/compression_022" />
                    <xsd:element name="BatchMode" type="xsd:boolean" maxOccurs="1" minOccurs="0" />
             </xsd:sequence>
      </xsd:complexType>
</xsd:element>
<xsd:element name="ReplaceKineticLawParameterResponse">
      <xsd:complexType>
             <xsd:sequence>
                    <xsd:element name="SbmlModelFiles" type="tns:SbmlModelFilesType"</p>
                    sawsdl:modelReference="http://edamontology.org/data_0950
                    http://edamontology.org/format 2585 http://wsio.org/transfer 011 http://wsio.org/compression 022"
                    maxOccurs="unbounded" minOccurs="1" />
                    <xsd:element name="Warnings" type="xsd:string" minOccurs="0" maxOccurs="unbounded"</pre>
                    sawsdl:modelReference="http://purl.org/edam/content-type/RAW_FILE
                    http://purl.org/edam/format/ANY http://purl.org/webservices/transfer/INLINE
                    http://purl.org/webservices/archive-method/PLAIN_TEXT" />
             </xsd:sequence>
      </xsd:complexType>
</xsd:element>
<xsd:element name="ScaleKineticLawParameter">
      <xsd:annotation>
             <xsd:documentation> Multiplies a kinetic law parameter with supplied columnbased data file (e.g.
             gene expression data). The mapping file must contain two columns, the first giving the IDs in the
             SBML model and the second giving the IDs matching the IDs of the DataFile. SBML model file,
             mapping file and data file must be given as input, as well as the ID of the parameter that will gets
             its value scaled. The IDs of the data file are expected to be in column 1. By default the
             IdColumnNumber=2, which means that the data in column 2 of the DataFile will be used by default.
             Both the MappingFile and DataFile should contain a header. </xsd:documentation>
      </xsd:annotation>
      <xsd:complexType>
             <xsd:sequence>
                    <xsd:element name="ParameterId" type="xsd:string" />
                    <xsd:element name="DataColumnNumber" type="xsd:int" minOccurs="0" maxOccurs="1" />
                    <!-- xsd:element name="MergeMode" type="xsd:string" / -->
                    <xsd:element name="MergeMode" type="xsd:string" minOccurs="1" maxOccurs="1" />
                    <xsd:element name="SbmlModelFiles" type="xsd:string"</pre>
                    sawsdl:modelReference="http://edamontology.org/data_0950"
                    http://edamontology.org/format_2585 http://wsio.org/transfer_011 http://wsio.org/compression_022"
                    maxOccurs="unbounded" minOccurs="1" />
                    <xsd:element name="DataFile" type="xsd:string"</pre>
                    sawsdl:modelReference="http://edamontology.org/data_0006 http://filext.com/file-extension/TSV
                    http://wsio.org/transfer_011 http://wsio.org/compression_022" />
                    <xsd:element name="MappingFile" type="xsd:string" minOccurs="0" maxOccurs="1" sawsdl:modelReference="http://edamontology.org/data_0006 http://filext.com/file-extension/TSV</p>
                    http://wsio.org/transfer_011 http://wsio.org/compression_022" />
                    <xsd:element name="BatchMode" type="xsd:boolean" maxOccurs="1" minOccurs="0" />
             </xsd:sequence>
      </xsd:complexType>
</xsd:element>
<xsd:element name="ScaleKineticLawParameterResponse">
      <xsd:complexType>
             <xsd:sequence>
                    <xsd:element name="SbmlModelFiles" type="tns:SbmlModelFilesType"</p>
                    sawsdl:modelReference="http://edamontology.org/data_0950 http://edamontology.org/format_2585 http://wsio.org/transfer_011 http://wsio.org/compression_022"
                    maxOccurs="unbounded" minOccurs="1" />
                    <xsd:element name="Warnings" type="xsd:string" minOccurs="0" maxOccurs="unbounded"</pre>
                    sawsdl:modelReference="http://purl.org/edam/content-type/RAW_FILE
```

```
http://purl.org/edam/format/ANY http://purl.org/webservices/transfer/INLINE
                   http://purl.org/webservices/archive-method/PLAIN_TEXT" />
             </xsd:sequence>
      </xsd:complexType>
</xsd:element>
<xsd:element name="AddKineticLawParameter">
      <xsd:annotation>
             (xsd:documentation) Adds a new parameter to a kinetic law. If there is no kinetic law associated
             with the reaction, a kinetic law object will also be added to the reaction, before adding the
             parameter. The values of the new parameter for the different reactions should be in a tab delimited
             text file (Datafile). A mapping is then done between the datafile and the SBML model using the
             supplied mapping file. The mapping file must contain two columns, the first giving the IDs in the
             SBML model and the second giving the IDs matching the IDs of the DataFile. SBML model file,
             mapping file and data file must be given as input, as well as the ID of the parameter will be
             added. The IDs of the data file are expected to be in column 1. By default the IdColumnNumber=2,
             which means that the data in column 2 of the DataFile will be used by default values for the new
             parameter. Both the MappingFile and DataFile should contain a header. </xsd:documentation>
      </xsd:annotation>
      <xsd:complexType>
             <xsd:sequence>
                   <xsd:element name="SbmlModelFiles" type="xsd:string"</pre>
                   sawsdl:modelReference="http://edamontology.org/data_0950
                   http://edamontology.org/format_2585 http://wsio.org/transfer_011 http://wsio.org/compression_022"
                   maxOccurs="unbounded" minOccurs="1" />
                   <xsd:element name="ParameterId" type="xsd:string" />
                   <xsd:element name="DefaultValue" type="xsd:int" minOccurs="0" maxOccurs="1" />
                   <xsd:sequence minOccurs="0" maxOccurs="1">
                          <xsd:element name="DataColumnNumber" type="xsd:int" minOccurs="0"</pre>
                          maxOccurs="1" />
                          <!-- xsd:element name="MergeMode" type="xsd:string" / -->
                          <xsd:element name="MergeMode" type="tns:MergeModeType" minOccurs="0"</pre>
                          maxOccurs="1" />
                          cxsd:element name="MappingFile" type="xsd:string" minOccurs="0" maxOccurs="1"
                          sawsdl:modelReference="http://edamontology.org/data_0006 http://filext.com/file-
extension/TSV http://wsio.org/transfer_011 http://wsio.org/compression_022" />
                          <xsd:element name="DataFile" type="xsd:string"</pre>
                          sawsdl:modelReference="http://edamontology.org/data_0006 http://filext.com/file-
                          extension/TSV http://wsio.org/transfer_011 http://wsio.org/compression_022" />
                   </xsd:sequence>
                   <xsd:element name="BatchMode" type="xsd:boolean" maxOccurs="1" minOccurs="0" />
             </xsd:sequence>
      </xsd:complexType>
</xsd:element>
<xsd:element name="AddKineticLawParameterResponse">
      <xsd:complexType>
             <xsd:sequence>
                   <xsd:element name="SbmlModelFiles" type="tns:SbmlModelFilesType"</pre>
                   sawsdl:modelReference="http://edamontology.org/data_0950
                   http://edamontology.org/format 2585 http://wsio.org/transfer 011 http://wsio.org/compression 022"
                   maxOccurs="unbounded" minOccurs="1" />
                   <xsd:element name="Warnings" type="xsd:string" minOccurs="0" maxOccurs="unbounded"</p>
                   sawsdl:modelReference="http://purl.org/edam/content-type/RAW_FILE
                   http://purl.org/edam/format/ANY http://purl.org/webservices/transfer/INLINE
                   http://purl.org/webservices/archive-method/PLAIN_TEXT" />
             </xsd:sequence>
      </xsd:complexType>
</xsd:element>
<xsd:element name="AddBoundsToKineticLaw">
      <xsd:annotation>
             <xsd:documentation> Adds UPPER BOUND and LOWER BOUND to a kinetic law. If there is no
             kinetic law associated with the reaction, a kinetic law object will also be added to the reaction,
             before adding the bounds. DefaultUpperBound is by default set to 1000. It is also possible to use
             different upper bounds for each reaction, e.g. by using gene expression data. These upper bounds
             can be supplied in the DataFile, and the DataColumnNumber (default=2) will specifies which column
             in the data file should be used. If a data file is used, then a mapping file must also be supplied.
             The mapping file must contain two columns, the first giving the IDs in the SBML model and the
             second giving the IDs matching the data file. The IDs of the data file are expected to be in column
             1. Both the MappingFile and DataFile should contain a header. </xsd:documentation>
      </xsd:annotation>
      <xsd:complexType>
             <xsd:sequence>
                   xsd:element name="SbmlModelFiles" type="xsd:string"
                   sawsdl:modelReference="http://edamontology.org/data_0950"
                   http://edamontology.org/format_2585 http://wsio.org/transfer_011 http://wsio.org/compression_022"
```

```
maxOccurs="unbounded" minOccurs="1" />
                     <xsd:element name="DefaultValue" type="xsd:int" minOccurs="0" maxOccurs="1" />
                     <xsd:sequence minOccurs="0" maxOccurs="1">
                            <xsd:element name="DataColumnNumber" type="xsd:int" minOccurs="0"</pre>
                            maxOccurs="1" />
                            <!-- xsd:element name="MergeMode" type="xsd:string" / -->
                            <xsd:element name="MergeMode" type="tns:MergeModeType" minOccurs="0"</pre>
                            <xsd:element name="MappingFile" type="xsd:string" minOccurs="0" maxOccurs="1"</pre>
                            sawsdl:modelReference="http://edamontology.org/data_0006 http://filext.com/file-
                            extension/TSV http://wsio.org/transfer_011 http://wsio.org/compression_022" />
                            <xsd:element name="DataFile" type="xsd:string"</pre>
                            sawsdl:modelReference="http://edamontology.org/data_0006 http://filext.com/file-
                            extension/TSV http://wsio.org/transfer_011 http://wsio.org/compression_022" />
                     <xsd:element name="BatchMode" type="xsd:boolean" maxOccurs="1" minOccurs="0" />
              </xsd:sequence>
      </xsd:complexType>
</xsd:element
<xsd:element name="AddBoundsToKineticLawResponse">
       <xsd:complexType>
              <xsd:sequence>
                     <xsd:element name="SbmlModelFiles" type="tns:SbmlModelFilesType"</pre>
                     sawsdl:modelReference="http://edamontology.org/data 0950
                     http://edamontology.org/format 2585 http://wsio.org/transfer 011 http://wsio.org/compression 022"
                     maxOccurs="unbounded" minOccurs="1" />
                     <xsd:element name="Warnings" type="xsd:string" minOccurs="0" maxOccurs="unbounded"</pre>
                     sawsdl:modelReference="http://purl.org/edam/content-type/RAW_FILE http://purl.org/edam/format/ANY http://purl.org/webservices/transfer/INLINE
                     http://purl.org/webservices/archive-method/PLAIN_TEXT" />
              </xsd:sequence>
      </xsd:complexType>
</xsd:element>
<xsd:element name="ReplaceInitialConcentrationsOfSpecies">
      <xsd:annotation>
              <xsd:documentation> Edits the initial concentrations of species. Input is the SBML file and a file
              containing two columns, the first giving the Species ID and the second giving the new
             concentration value. </xsd:documentation>
      </xsd:annotation>
       <xsd:complexType>
              <xsd:sequence>
                     <xsd:element name="SbmlModelFiles" type="xsd:string"</p>
                     sawsdl:modelReference="http://edamontology.org/data_0950
                     http://edamontology.org/format_2585 http://wsio.org/transfer_011 http://wsio.org/compression_022"
                     maxOccurs="unbounded" minOccurs="1" />
                     <xsd:element name="DataFile" type="xsd:string"</pre>
                     sawsdl:modelReference="http://edamontology.org/data_0006 http://filext.com/file-extension/TSV
                     http://wsio.org/transfer_011 http://wsio.org/compression_022" maxOccurs="1" minOccurs="1" />
                     <xsd:element name="MappingFile" type="xsd:string" maxOccurs="1" minOccurs="0" />
                     <xsd:element name="DataColumnNumber" type="xsd:int" maxOccurs="1" minOccurs="0" />
                     <xsd:element name="BatchMode" type="xsd:boolean" maxOccurs="1" minOccurs="0" />
              </xsd:sequence>
       </xsd:complexType>
</xsd:element>
<xsd:element name="ReplaceInitialConcentrationsOfSpeciesResponse">
       <xsd:complexType>
              <xsd:sequence>
                     <u><xsd:element name="SbmlModelFiles"</u> <u>type="tns:SbmlModelFilesType"</u>
                     sawsdl:modelReference="http://edamontology.org/data_0950
                     http://edamontology.org/format 2585 http://wsio.org/transfer 011 http://wsio.org/compression 022"
                     maxOccurs="unbounded" minOccurs="1" />
                     <xsd:element name="Warnings" type="xsd:string" minOccurs="0" maxOccurs="unbounded"</pre>
                     sawsdl:modelReference="http://purl.org/edam/content-type/RAW_FILE
                     http://purl.org/edam/format/ANY http://purl.org/webservices/transfer/INLINE
                     http://purl.org/webservices/archive-method/PLAIN_TEXT" />
              </xsd:sequence>
       </xsd:complexType>
</r>

<
<xsd:element name="ValidateSBMLModel">
              <xsd:documentation> Validates an SBML model. </xsd:documentation>
      </xsd:annotation>
```

```
<xsd:complexType>
            <xsd:sequence>
                  <xsd:element name="SbmlModelFile" type="xsd:string"</p>
                  sawsdl:modelReference="http://edamontology.org/data_0950
                  http://edamontology.org/format_2585 http://wsio.org/transfer_011 http://wsio.org/compression_022"
            </xsd:sequence>
      </xsd:complexType>
</xsd:element>
<xsd:element name="ValidateSBMLModelResponse">
      <xsd:annotation>
            <xsd:documentation> Returns true if the SBML model is valid or returns the first error
            encountered. </xsd:documentation>
      </xsd:annotation>
      <xsd:complexType>
            <xsd:sequence>
                  <xsd:element name="ModellsValid" type="xsd:boolean" />
                  <xsd:element name="ErrorMessages" type="xsd:string" minOccurs="0"</pre>
                  maxOccurs="unbounded" />
            </xsd:sequence>
      </xsd:complexType>
</xsd:element>
<xsd:element name="SBMLmodFault" type="tns:FaultType" />
<xsd:complexType name="FaultType">
      <xsd:annotation>
            <xsd:documentation> A fault message, contains the type and free text </xsd:documentation>
      </xsd:annotation>
      <xsd:sequence>
            <xsd:element ref="tns:FaultEnum" />
            <xsd:element name="FaultMessage" type="xsd:string" />
      </xsd:sequence>
</xsd:complexType>
<xsd:element name="FaultEnum" type="tns:FaultEnumType" />
<xsd:simpleType name="FaultEnumType">
      <xsd:annotation>
            <xsd:documentation> Error types to expect from the system </xsd:documentation>
      </xsd:annotation>
      <xsd:restriction base="xsd:string">
            <xsd:enumeration value="FILE HANDLING ERROR" />
            <xsd:enumeration value="MISSING_ELEMENT" />
            <xsd:enumeration value="INTERNAL ERROR" />
      </xsd:restriction>
</xsd:simpleType>
<xsd:complexType name="SbmlModelFilesType">
      <xsd:sequence>
            <xsd:element name="Name" type="xsd:string" />
            <xsd:element name="SbmlModelFile" type="xsd:string" />
      </xsd:sequence>
</xsd:complexType>
<xsd:complexType name="ListSbmlModelFiles" />
<xsd:element name="GetVersion">
      <xsd:annotation>
            <xsd:documentation> Returns the webservice version. </xsd:documentation>
      </xsd:annotation>
      <xsd:complexType>
            <xsd:sequence />
      </xsd:complexType>
</xsd:element>
<xsd:element name="GetVersionResponse">
      <xsd:complexType>
            <xsd:sequence>
                  <xsd:element name="Version" type="xsd:string" />
            </xsd:sequence>
      </xsd:complexType>
</xsd:element>
<xsd:element name="ValidateSBMLModelText">
      <xsd:complexType>
```

```
<xsd:sequence>
                    <xsd:element name="SbmlModelFile" type="xsd:string"</p>
                    sawsdl:modelReference="http://edamontology.org/data_0950"
                    http://edamontology.org/format_2585 http://wsio.org/transfer_011" />
             </xsd:sequence>
      </xsd:complexType>
</r>

<
<xsd:element name="ValidateSBMLModelTextResponse">
      <xsd:complexType>
             <xsd:sequence>
                    <xsd:element name="ModellsValid" type="xsd:boolean" />
                    <xsd:element name="ErrorMessages" type="xsd:string" minOccurs="0"</pre>
                    maxOccurs="unbounded" />
             </xsd:sequence>
      </xsd:complexType>
<xsd:element name="ValidateSBMLModelBase64Encoded">
      <xsd:complexType>
             <xsd:sequence>
                    <xsd:element name="SbmlModelFile" type="xsd:string"</p>
                    sawsdl:modelReference="http://edamontology.org/data_0950
                    http://edamontology.org/format_2585 http://wsio.org/transfer_011 " />
             </xsd:sequence>
      </xsd:complexType>
</xsd:element>
<xsd:element name="ValidateSBMLModelBase64EncodedResponse">
      <xsd:complexType>
             <xsd:sequence>
                    <xsd:element name="ModellsValid" type="xsd:boolean" />
                    <xsd:element name="ErrorMessages" type="xsd:string" minOccurs="0"</pre>
                    maxOccurs="unbounded" />
             </xsd:sequence>
      </xsd:complexType>
</xsd:element>
<xsd:element name="ValidateSBMLModelGzippedBase64Encoded">
      <xsd:complexType>
             <xsd:sequence>
                    <xsd:element name="SbmlModelFile" type="xsd:string"</pre>
                    sawsdl:modelReference="http://edamontology.org/data_0950
                    http://edamontology.org/format_2585 http://wsio.org/transfer_011 " />
             </xsd:sequence>
      </xsd:complexType>
</xsd:element>
<xsd:element name="ValidateSBMLModelGzippedBase64EncodedResponse">
      <xsd:complexType>
             <xsd:sequence>
                    <xsd:element name="ModellsValid" type="xsd:boolean" />
                    <xsd:element name="ErrorMessages" type="xsd:string" minOccurs="0"</pre>
                    maxOccurs="unbounded" />
             </xsd:sequence>
      </xsd:complexType>
</xsd:element>
<xsd:element name="ReplaceGlobalParametersText">
      <xsd:complexType>
             <xsd:sequence>
                    <xsd:element name="SbmlModelFiles" type="xsd:string" minOccurs="1"</pre>
                    maxOccurs="unbounded" />
                    <xsd:element name="DataFile" type="xsd:string" minOccurs="1" maxOccurs="1" />
                    <xsd:element name="DataColumnNumber" type="xsd:int" minOccurs="0" maxOccurs="1" />
                    <xsd:element name="MergeMode" type="tns:MergeModeType" maxOccurs="1"</pre>
                    minOccurs="0" />
                    <xsd:element name="MappingFile" type="xsd:string" minOccurs="0" maxOccurs="1" />
                    <xsd:element name="BatchMode" type="xsd:boolean" minOccurs="0" maxOccurs="1" />
             </xsd:sequence>
      </xsd:complexType>
</xsd:element>
<xsd:element name="ReplaceGlobalParametersTextResponse">
      <xsd:complexType>
             <xsd:sequence>
```

```
<xsd:element name="SbmlModelFiles" type="tns:SbmlModelFilesType" minOccurs="1"</pre>
                    maxOccurs="unbounded" />
                    <xsd:element name="Warnings" type="xsd:string" maxOccurs="unbounded" minOccurs="0" />
             </xsd:sequence>
      </xsd:complexType>
</xsd:element>
<xsd:element name="ReplaceGlobalParametersTextFault">
      <xsd:complexType>
             <xsd:sequence>
                    <xsd:element name="ReplaceGlobalParametersTextFault" type="xsd:string" />
             </xsd:sequence>
      </xsd:complexType>
</xsd:element>
<xsd:element name="ReplaceGlobalParametersBase64Encoded">
      <xsd:complexType>
             <xsd:sequence>
                    <xsd:element name="SbmlModelFiles" type="xsd:string" maxOccurs="unbounded"</pre>
                    minOccurs="1" />
                    <xsd:element name="DataFile" type="xsd:string" maxOccurs="1" minOccurs="1" />
                    <xsd:element name="DataColumnNumber" type="xsd:int" maxOccurs="1" minOccurs="0" />
                    <xsd:element name="MergeMode" type="tns:MergeModeType" maxOccurs="1"</p>
                    minOccurs="0" />
                    <xsd:element name="MappingFile" type="xsd:string" maxOccurs="1" minOccurs="0" />
                    <xsd:element name="BatchMode" type="xsd:boolean" maxOccurs="1" minOccurs="0" />
             </xsd:sequence>
      </xsd:complexType>
</xsd:element>
<xsd:element name="ReplaceGlobalParametersBase64EncodedResponse">
      <xsd:complexType>
             <xsd:sequence>
                    <xsd:element name="SbmlModelFiles" type="tns:SbmlModelFilesType" minOccurs="1"</pre>
                    maxOccurs="unbounded" />
                    <xsd:element name="Warnings" type="xsd:string" maxOccurs="unbounded" minOccurs="0" />
             </xsd:sequence>
      </xsd:complexType>
</r>

<
<xsd:element name="ReplaceGlobalParametersBase64EncodedFault">
      <xsd:complexType>
             <xsd:sequence>
                    <xsd:element name="ReplaceGlobalParametersBase64EncodedFault" type="xsd:string" />
             </xsd:sequence>
      </xsd:complexType>
</xsd:element>
<xsd:element name="ReplaceGlobalParametersGzippedBase64Encoded">
      <xsd:complexType>
             <xsd:sequence>
                    <xsd:element name="SbmlModelFiles" type="xsd:string" maxOccurs="unbounded"</pre>
                    minOccurs="1" />
                    <xsd:element name="DataFile" type="xsd:string" maxOccurs="1" minOccurs="1" />
                    <xsd:element name="DataColumnNumber" type="xsd:int" maxOccurs="1" minOccurs="0" />
                    <xsd:element name="MergeMode" type="tns:MergeModeType" maxOccurs="1"</pre>
                    minOccurs="0" />
                    <xsd:element name="MappingFile" type="xsd:string" maxOccurs="1" minOccurs="0" />
                    <xsd:element name="BatchMode" type="xsd:boolean" maxOccurs="1" minOccurs="0" />
             </xsd:sequence>
      </xsd:complexType>
</xsd:element>
<xsd:element name="ReplaceGlobalParametersGzippedBase64EncodedResponse">
      <xsd:complexType>
             <xsd:sequence>
                    <xsd:element name="SbmlModelFiles" type="tns:SbmlModelFilesType"</pre>
                    maxOccurs="unbounded" minOccurs="1" />
                    <xsd:element name="Warnings" type="xsd:string" maxOccurs="unbounded" minOccurs="0" />
             </xsd:sequence>
      </xsd:complexType>
</xsd:element>
<xsd:element name="ReplaceGlobalParametersGzippedBase64EncodedFault">
      <xsd:complexType>
```

```
<xsd:sequence>
                  <xsd:element name="ReplaceGlobalParametersGzippedBase64EncodedFault" type="xsd:string"</p>
            </xsd:sequence>
      </xsd:complexType>
</xsd:element>
<xsd:element name="ReplaceKineticLawParameterText">
      <xsd:complexType>
            <xsd:sequence>
                  <xsd:element name="SbmlModelFiles" type="xsd:string" maxOccurs="unbounded"</pre>
                  minOccurs="1" />
                  <xsd:element name="ParameterId" type="xsd:string" maxOccurs="1" minOccurs="1" />
                  <xsd:element name="DataFile" type="xsd:string" maxOccurs="1" minOccurs="1" />
                  <xsd:element name="DataColumnNumber" type="xsd:int" maxOccurs="1" minOccurs="0" />
                  <xsd:element name="MappingFile" type="xsd:string" maxOccurs="1" minOccurs="0" />
                  <xsd:element name="MergeMode" type="tns:MergeModeType" maxOccurs="1"</pre>
                  minOccurs="0" />
                  <xsd:element name="BatchMode" type="xsd:boolean" maxOccurs="1" minOccurs="0" />
            </xsd:sequence>
      </xsd:complexType>
</xsd:element>
<xsd:element name="ReplaceKineticLawParameterTextResponse">
      <xsd:complexType>
            <xsd:sequence>
                  <xsd:element name="SbmlModelFiles" type="tns:SbmlModelFilesType"</p>
                  maxOccurs="unbounded" minOccurs="1" />
                  <xsd:element name="Warnings" type="xsd:string" maxOccurs="unbounded" minOccurs="0" />
            </xsd:sequence>
      </xsd:complexType>
</xsd:element>
<xsd:element name="ReplaceKineticLawParameterBase64Encoded">
      <xsd:complexType>
            <xsd:sequence>
                  <xsd:element name="SbmlModelFiles" type="xsd:string" maxOccurs="unbounded"</pre>
                  <xsd:element name="ParameterId" type="xsd:string" maxOccurs="1" minOccurs="1" />
                  <xsd:element name="DataFile" type="xsd:string" maxOccurs="1" minOccurs="1" />
                  <xsd:element name="DataColumnNumber" type="xsd:int" maxOccurs="1" minOccurs="0" />
                  <xsd:element name="MappingFile" type="xsd:string" maxOccurs="1" minOccurs="0" />
                  <xsd:element name="MergeMode" type="tns:MergeModeType" maxOccurs="1"</p>
                  minOccurs="0" />
                  <xsd:element name="BatchMode" type="xsd:boolean" maxOccurs="1" minOccurs="0" />
            </xsd:sequence>
      </xsd:complexType>
</xsd:element>
<xsd:element name="ReplaceKineticLawParameterBase64EncodedResponse">
      <xsd:complexType>
                  <xsd:element name="SbmlModelFiles" type="tns:SbmlModelFilesType"</pre>
                  maxOccurs="unbounded" minOccurs="1" />
                  <xsd:element name="Warnings" type="xsd:string" maxOccurs="unbounded" minOccurs="0" />
            </xsd:sequence>
      </xsd:complexType>
</xsd:element>
<xsd:element name="ReplaceKineticLawParameterGzippedBase64Encoded">
      <xsd:complexType>
            <xsd:sequence>
                  <xsd:element name="SbmlModelFiles" type="xsd:string" maxOccurs="unbounded"</pre>
                  minOccurs="1" />
                  <xsd:element name="ParameterId" type="xsd:string" maxOccurs="1" minOccurs="1" />
                  <xsd:element name="DataFile" type="xsd:string" maxOccurs="1" minOccurs="1" />
                  <xsd:element name="DataColumnNumber" type="xsd:int" maxOccurs="1" minOccurs="0" />
                  <xsd:element name="MappingFile" type="xsd:string" maxOccurs="1" minOccurs="0" />
                  <xsd:element name="MergeMode" type="tns:MergeModeType" maxOccurs="1"</pre>
                  minOccurs="0" />
                  <xsd:element name="BatchMode" type="xsd:boolean" maxOccurs="1" minOccurs="0" />
            </xsd:sequence>
      </xsd:complexType>
```

```
</xsd:element>
<xsd:element name="ReplaceKineticLawParameterGzippedBase64EncodedResponse">
      <xsd:complexType>
            <xsd:sequence>
                  <xsd:element name="SbmlModelFiles" type="tns:SbmlModelFilesType"</pre>
                  maxOccurs="unbounded" minOccurs="1" />
                  <xsd:element name="Warnings" type="xsd:string" maxOccurs="unbounded" minOccurs="0" />
            </xsd:sequence>
      </xsd:complexType>
</xsd:element>
<xsd:element name="ReplaceKineticLawParameterTextFault">
      <xsd:complexType>
            <xsd:sequence>
                  <xsd:element name="ReplaceKineticLawParameterTextFault" type="xsd:string" />
            </xsd:sequence>
      </xsd:complexType>
</xsd:element>
<xsd:element name="ReplaceKineticLawParameterBase64EncodedFault">
      <xsd:complexType>
            <xsd:sequence>
                  <xsd:element name="ReplaceKineticLawParameterBase64EncodedFault" type="xsd:string" />
            </xsd:sequence>
      </xsd:complexType>
</xsd:element>
<xsd:element name="ReplaceKineticLawParameterGzippedBase64EncodedFault">
      <xsd:complexType>
            <xsd:sequence>
                  <xsd:element name="ReplaceKineticLawParameterGzippedBase64EncodedFault"</p>
                  type="xsd:string" />
            </xsd:sequence>
      </xsd:complexType>
</xsd:element>
<xsd:element name="ReplaceGlobalParamtersBase64EncodedFault">
      <xsd:complexType>
            <xsd:sequence>
                  <xsd:element name="ReplaceGlobalParamtersBase64EncodedFault" type="xsd:string" />
            </xsd:sequence>
      </xsd:complexType>
//ysd-element>
<xsd:element name="ScaleKineticLawParameterText">
      <xsd:complexType>
            <xsd:sequence>
                  <xsd:element name="SbmlModelFiles" type="xsd:string" maxOccurs="unbounded"</pre>
                  minOccurs="1" />
                  <xsd:element name="ParameterId" type="xsd:string" maxOccurs="1" minOccurs="1" />
                  <xsd:element name="DataFile" type="xsd:string" maxOccurs="1" minOccurs="1" />
                  <xsd:element name="DataColumnNumber" type="xsd:int" maxOccurs="1" minOccurs="0" />
                  <xsd:element name="MappingFile" type="xsd:string" maxOccurs="1" minOccurs="0" />
                  <xsd:element name="MergeMode" type="tns:MergeModeType" maxOccurs="1"</pre>
                  minOccurs="0" />
                  <xsd:element name="BatchMode" type="xsd:boolean" maxOccurs="1" minOccurs="0" />
            </xsd:sequence>
      </xsd:complexType>
</xsd:element>
<xsd:element name="ScaleKineticLawParameterTextResponse">
      <xsd:complexType>
            <xsd:sequence>
                  <xsd:element name="SbmlModelFiles" type="tns:SbmlModelFilesType"</p>
                  maxOccurs="unbounded" minOccurs="1" />
                  <xsd:element name="Warnings" type="xsd:string" maxOccurs="unbounded" minOccurs="0" />
            </xsd:sequence>
      </xsd:complexType>
</xsd:element>
<xsd:element name="ScaleKineticLawParameterBase64Encoded">
      <xsd:complexType>
            <xsd:sequence>
                  <xsd:element name="SbmlModelFiles" type="xsd:string" maxOccurs="unbounded"</p>
                  minOccurs="1" />
```

```
<xsd:element name="ParameterId" type="xsd:string" maxOccurs="1" minOccurs="1" />
                  <xsd:element name="DataFile" type="xsd:string" maxOccurs="1" minOccurs="1" />
                  <xsd:element name="DataColumnNumber" type="xsd:int" maxOccurs="1" minOccurs="0" />
                  <xsd:element name="MappingFile" type="xsd:string" maxOccurs="1" minOccurs="0" />
                  <xsd:element name="MergeMode" type="tns:MergeModeType" maxOccurs="1"</p>
                  minOccurs="0" />
                  <xsd:element name="BatchMode" type="xsd:boolean" maxOccurs="1" minOccurs="0" />
            </xsd:sequence>
     </xsd:complexType>
</xsd:element>
<xsd:element name="ScaleKineticLawParameterBase64EncodedResponse">
     <xsd:complexType>
                  <xsd:element name="SbmlModelFiles" type="tns:SbmlModelFilesType"</p>
                  maxOccurs="unbounded" minOccurs="1" />
                  <xsd:element name="Warnings" type="xsd:string" maxOccurs="unbounded" minOccurs="0" />
            </xsd:sequence>
     </xsd:complexType>
</xsd:element>
<xsd:element name="ScaleKineticLawParameterGzippedBase64Encoded">
     <xsd:complexType>
            <xsd:sequence>
                  <xsd:element name="SbmlModelFiles" type="xsd:string" maxOccurs="unbounded"</pre>
                  minOccurs="1" />
                  <xsd:element name="ParameterId" type="xsd:string" maxOccurs="1" minOccurs="1" />
                  <xsd:element name="DataFile" type="xsd:string" maxOccurs="1" minOccurs="1" />
                  <xsd:element name="DataColumnNumber" type="xsd:int" maxOccurs="1" minOccurs="0" />
                  <xsd:element name="MappingFile" type="xsd:string" maxOccurs="1" minOccurs="0" />
                  <xsd:element name="MergeMode" type="tns:MergeModeType" maxOccurs="1"</pre>
                  minOccurs="0" />
                  <xsd:element name="BatchMode" type="xsd:boolean" maxOccurs="1" minOccurs="0" />
            </xsd:sequence>
     </xsd:complexType>
</xsd:element>
<xsd:element name="ScaleKineticLawParameterGzippedBase64EncodedResponse">
     <xsd:complexType>
            <xsd:sequence>
                  <xsd:element name="SbmlModelFiles" type="tns:SbmlModelFilesType"</p>
                  maxOccurs="unbounded" minOccurs="1" />
                  <xsd:element name="Warnings" type="xsd:string" maxOccurs="unbounded" minOccurs="0" />
            </xsd:sequence>
     </xsd:complexType>
</xsd:element>
<xsd:element name="ScaleKineticLawParameterTextFault">
     <xsd:complexType>
            <xsd:sequence>
                  <xsd:element name="ScaleKineticLawParameterTextFault" type="xsd:string" />
            </xsd:sequence>
     </xsd:complexType>
</xsd:element>
<xsd:element name="ScaleKineticLawParameterBase64EncodedFault">
     <xsd:complexType>
            <xsd:sequence>
                  <xsd:element name="ScaleKineticLawParameterBase64EncodedFault" type="xsd:string" />
            </xsd:sequence>
     </xsd:complexType>
</xsd:element>
<xsd:element name="ScaleKineticLawParameterGzippedBase64EncodedFault">
      <xsd:complexType>
            <xsd:sequence>
                  <xsd:element name="ScaleKineticLawParameterGzippedBase64EncodedFault" type="xsd:string"</p>
            </xsd:sequence>
     </xsd:complexType>
</xsd:element>
<xsd:element name="AddBoundsToKineticLawText">
      <xsd:complexType>
            <xsd:sequence>
```

```
<xsd:element name="SbmlModelFiles" type="xsd:string" maxOccurs="unbounded"</pre>
                  minOccurs="1" />
                  <xsd:element name="DefaultValue" type="xsd:int" maxOccurs="1" minOccurs="1" />
                  <xsd:element name="DataFile" type="xsd:string" maxOccurs="1" minOccurs="0" />
                  <xsd:element name="DataColumnNumber" type="xsd:int" maxOccurs="1" minOccurs="0" />
                  <xsd:element name="MappingFile" type="xsd:string" maxOccurs="1" minOccurs="0" />
                  <xsd:element name="MergeMode" type="tns:MergeModeType" maxOccurs="1"</pre>
                  minOccurs="0" />
                  <xsd:element name="BatchMode" type="xsd:boolean" maxOccurs="1" minOccurs="0" />
            </xsd:sequence>
      </xsd:complexType>
</xsd:element>
<xsd:element name="AddBoundsToKineticLawTextResponse">
     <xsd:complexType>
            <xsd:sequence>
                  <xsd:element name="SbmlModelFiles" type="tns:SbmlModelFilesType"</pre>
                  maxOccurs="unbounded" minOccurs="1" />
                  <xsd:element name="Warnings" type="xsd:string" maxOccurs="unbounded" minOccurs="0" />
            </xsd:sequence>
     </xsd:complexType>
</xsd:element>
<xsd:element name="AddBoundsToKineticLawBase64Encoded">
     <xsd:complexType>
            <xsd:sequence>
                  <xsd:element name="SbmlModelFiles" type="xsd:string" maxOccurs="unbounded"</pre>
                  minOccurs="1" />
                  <xsd:element name="DefaultValue" type="xsd:int" maxOccurs="1" minOccurs="1" />
                  <xsd:element name="DataFile" type="xsd:string" maxOccurs="1" minOccurs="0" />
                  <xsd:element name="DataColumnNumber" type="xsd:int" maxOccurs="1" minOccurs="0" />
                  <xsd:element name="MappingFile" type="xsd:string" maxOccurs="1" minOccurs="0" />
                  <xsd:element name="MergeMode" type="tns:MergeModeType" maxOccurs="1"</p>
                  minOccurs="0" />
                  <xsd:element name="BatchMode" type="xsd:boolean" maxOccurs="1" minOccurs="0" />
            </xsd:sequence>
     </xsd:complexType>
</xsd:element>
<xsd:element name="AddBoundsToKineticLawBase64EncodedResponse">
     <xsd:complexType>
            <xsd:sequence>
                  <xsd:element name="SbmlModelFiles" type="tns:SbmlModelFilesType"</p>
                  maxOccurs="unbounded" minOccurs="1" />
                  <xsd:element name="Warnings" type="xsd:string" maxOccurs="unbounded" minOccurs="0" />
            </xsd:sequence>
     </xsd:complexType>
</xsd:element>
<xsd:element name="AddBoundsToKineticLawGzippedBase64Encoded">
      <xsd:complexType>
                  <xsd:element name="SbmlModelFiles" type="xsd:string" maxOccurs="unbounded"</pre>
                  minOccurs="1" />
                  <xsd:element name="DefaultValue" type="xsd:int" maxOccurs="1" minOccurs="1" />
                  <xsd:element name="DataFile" type="xsd:string" maxOccurs="1" minOccurs="0" />
                  <xsd:element name="DataColumnNumber" type="xsd:int" maxOccurs="1" minOccurs="0" />
                  <xsd:element name="MappingFile" type="xsd:string" maxOccurs="1" minOccurs="0" />
                  <xsd:element name="MergeMode" type="tns:MergeModeType" maxOccurs="1"</pre>
                  minOccurs="0" />
                  <xsd:element name="BatchMode" type="xsd:boolean" maxOccurs="1" minOccurs="0" />
            </xsd:sequence>
     </xsd:complexType>
</xsd:element>
<xsd:element name="AddBoundsToKineticLawGzippedBase64EncodedResponse">
      <xsd:complexType>
            <xsd:sequence>
                  <xsd:element name="SbmlModelFiles" type="tns:SbmlModelFilesType"</pre>
                  maxOccurs="unbounded" minOccurs="1" />
                  <xsd:element name="Warnings" type="xsd:string" maxOccurs="unbounded" minOccurs="0" />
            </xsd:sequence>
      </xsd:complexType>
```

```
</xsd:element>
<xsd:element name="AddBoundsToKineticLawTextFault">
      <xsd:complexType>
            <xsd:sequence>
                  <xsd:element name="AddBoundsToKineticLawTextFault" type="xsd:string" />
            </xsd:sequence>
      </xsd:complexType>
</xsd:element>
<xsd:element name="AddBoundsToKineticLawBase64EncodedFault">
      <xsd:complexType>
                  <xsd:element name="AddBoundsToKineticLawBase64EncodedFault" type="xsd:string" />
      </xsd:complexType>
</xsd:element>
<xsd:element name="AddBoundsToKineticLawGzippedBase64EncodedFault">
      <xsd:complexType>
            <xsd:sequence>
                  <xsd:element name="AddBoundsToKineticLawGzippedBase64EncodedFault" type="xsd:string"</p>
            </xsd:sequence>
      </xsd:complexType>
</xsd:element>
<xsd:element name="ReplaceInitialConcentrationsOfSpeciesText">
      <xsd:complexType>
            <xsd:sequence>
                  <xsd:element name="SbmlModelFiles" type="xsd:string" maxOccurs="unbounded"</pre>
                  minOccurs="1" />
                  <xsd:element name="DataFile" type="xsd:string" maxOccurs="1" minOccurs="1" />
                  <xsd:element name="DataColumnNumber" type="xsd:int" maxOccurs="1" minOccurs="0" />
                  <xsd:element name="MappingFile" type="xsd:string" maxOccurs="1" minOccurs="0" />
                  <xsd:element name="BatchMode" type="xsd:boolean" maxOccurs="1" minOccurs="0" />
            </xsd:sequence>
      </xsd:complexType>
</xsd:element>
<xsd:element name="ReplaceInitialConcentrationsOfSpeciesTextResponse">
      <xsd:complexType>
            <xsd:sequence>
                  <xsd:element name="SbmlModelFiles" type="tns:SbmlModelFilesType"</p>
                  maxOccurs="unbounded" minOccurs="1" />
                  <xsd:element name="Warnings" type="xsd:string" maxOccurs="unbounded" minOccurs="0" />
            </xsd:sequence>
      </xsd:complexType>
</xsd:element>
<xsd:element name="ReplaceInitialConcentrationsOfSpeciesBase64Encoded">
      <xsd:complexType>
            <xsd:sequence>
                  <xsd:element name="SbmlModelFiles" type="xsd:string" maxOccurs="unbounded"</pre>
                  minOccurs="1" />
                  <xsd:element name="DataFile" type="xsd:string" maxOccurs="1" minOccurs="1" />
                  <xsd:element name="DataColumnNumber" type="xsd:int" maxOccurs="1" minOccurs="0" />
                  <xsd:element name="MappingFile" type="xsd:string" maxOccurs="1" minOccurs="0" />
                  <xsd:element name="BatchMode" type="xsd:boolean" maxOccurs="1" minOccurs="0" />
            </xsd:sequence>
      </xsd:complexType>
</xsd:element>
<xsd:element name="ReplaceInitialConcentrationsOfSpeciesBase64EncodedResponse">
      <xsd:complexType>
            <xsd:sequence>
                  <xsd:element name="SbmlModelFiles" type="tns:SbmlModelFilesType"</pre>
                  maxOccurs="unbounded" minOccurs="1" />
                  <xsd:element name="Warnings" type="xsd:string" maxOccurs="unbounded" minOccurs="0" />
            </xsd:sequence>
      </xsd:complexType>
</xsd:element>
<xsd:element name="ReplaceInitialConcentrationsOfSpeciesGzippedBase64Encoded">
      <xsd:complexType>
            <xsd:sequence>
```

```
<xsd:element name="SbmlModelFiles" type="xsd:string" maxOccurs="unbounded"</pre>
                  minOccurs="1" />
                  <xsd:element name="DataFile" type="xsd:string" maxOccurs="1" minOccurs="1" />
                  <xsd:element name="DataColumnNumber" type="xsd:int" maxOccurs="1" minOccurs="0" />
                  <xsd:element name="MappingFile" type="xsd:string" maxOccurs="1" minOccurs="0" />
                  <xsd:element name="BatchMode" type="xsd:boolean" maxOccurs="1" minOccurs="0" />
            </xsd:sequence>
      </xsd:complexType>
</xsd:element>
<xsd:element name="ReplaceInitialConcentrationsOfSpeciesGzippedBase64EncodedResponse">
      <xsd:complexType>
            <xsd:sequence>
                  <xsd:element name="SbmlModelFiles" type="tns:SbmlModelFilesType"</pre>
                  maxOccurs="unbounded" minOccurs="1" />
                  <xsd:element name="Warnings" type="xsd:string" maxOccurs="unbounded" minOccurs="0" />
            </xsd:sequence>
      </xsd:complexType>
</xsd:element>
<xsd:element name="ReplaceInitialConcentrationsOfSpeciesTextFault">
      <xsd:complexType>
                  <xsd:element name="ReplaceInitialConcentrationsOfSpeciesTextFault" type="xsd:string" />
            </xsd:sequence>
      </xsd:complexType>
</xsd:element>
<xsd:element name="ReplaceInitialConcentrationsOfSpeciesBase64EncodedFault">
      <xsd:complexType>
            <xsd:sequence>
                  <xsd:element name="ReplaceInitialConcentrationsOfSpeciesBase64EncodedFault"</p>
                  type="xsd:string" />
            </xsd:sequence>
      </xsd:complexType>
</xsd:element>
<xsd:element name="ReplaceInitialConcentrationsOfSpeciesGzippedBase64EncodedFault">
      <xsd:complexType>
            <xsd:sequence>
                  <xsd:element name="ReplaceInitialConcentrationsOfSpeciesGzippedBase64EncodedFault"</p>
                  type="xsd:string" />
            </xsd:sequence>
      </xsd:complexType>
</xsd:element>
<xsd:element name="ScaleGlobalParametersText">
      <xsd:complexType>
            <xsd:sequence>
                  <xsd:element name="SbmlModelFiles" type="xsd:string" maxOccurs="unbounded"</pre>
                  minOccurs="1" />
                  <xsd:element name="DataFile" type="xsd:string" maxOccurs="1" minOccurs="1" />
                  <xsd:element name="DataColumnNumber" type="xsd:int" maxOccurs="1" minOccurs="0" />
                  <xsd:element name="MappingFile" type="xsd:string" maxOccurs="1" minOccurs="0" />
                  <xsd:element name="MergeMode" type="tns:MergeModeType" maxOccurs="1"</pre>
                  minOccurs="0" />
                  <xsd:element name="BatchMode" type="xsd:boolean" maxOccurs="1" minOccurs="0" />
            </xsd:sequence>
      </xsd:complexType>
</xsd:element>
<xsd:element name="ScaleGlobalParametersTextResponse">
      <xsd:complexType>
                  <xsd:element name="SbmlModelFiles" type="tns:SbmlModelFilesType"</p>
                  maxOccurs="unbounded" minOccurs="1" />
                  <xsd:element name="Warnings" type="xsd:string" maxOccurs="unbounded" minOccurs="0" />
            </xsd:sequence>
      </xsd:complexType>
<xsd:element name="ScaleGlobalParametersBase64Encoded">
      <xsd:complexType>
            <xsd:sequence>
                  <xsd:element name="SbmlModelFiles" type="xsd:string" maxOccurs="unbounded"</pre>
```

```
minOccurs="1" />
                              <xsd:element name="DataFile" type="xsd:string" maxOccurs="1" minOccurs="1" />
                              <xsd:element name="DataColumnNumber" type="xsd:int" maxOccurs="1" minOccurs="0" />
                              <xsd:element name="MappingFile" type="xsd:string" maxOccurs="1" minOccurs="0" />
                              <xsd:element name="MergeMode" type="tns:MergeModeType" maxOccurs="1"</p>
                              minOccurs="0" />
                              <xsd:element name="BatchMode" type="xsd:boolean" maxOccurs="1" minOccurs="0" />
                        </xsd:sequence>
                  </xsd:complexType>
            </xsd:element>
            <xsd:element name="ScaleGlobalParametersBase64EncodedResponse">
                  <xsd:complexType>
                              <xsd:element name="SbmlModelFiles" type="tns:SbmlModelFilesType"</p>
                              maxOccurs="unbounded" minOccurs="1" />
                              <xsd:element name="Warnings" type="xsd:string" maxOccurs="unbounded" minOccurs="0" />
                        </xsd:sequence>
                  </xsd:complexType>
            </xsd:element>
            <xsd:element name="ScaleGlobalParametersGzippedBase64Encoded">
                  <xsd:complexType>
                        <xsd:sequence>
                              <xsd:element name="SbmlModelFiles" type="xsd:string" maxOccurs="unbounded"</pre>
                              minOccurs="1" />
                              <xsd:element name="DataFile" type="xsd:string" maxOccurs="1" minOccurs="1" />
                              <xsd:element name="DataColumnNumber" type="xsd:int" maxOccurs="1" minOccurs="0" />
                              <xsd:element name="MappingFile" type="xsd:string" maxOccurs="1" minOccurs="0" />
                              <xsd:element name="MergeMode" type="tns:MergeModeType" maxOccurs="1"</p>
                              minOccurs="0" />
                              <xsd:element name="BatchMode" type="xsd:boolean" maxOccurs="1" minOccurs="0" />
                        </xsd:sequence>
                  </xsd:complexType>
            </xsd:element>
            <xsd:element name="ScaleGlobalParametersGzippedBase64EncodedResponse">
                  <xsd:complexType>
                        <xsd:sequence>
                              <xsd:element name="SbmlModelFiles" type="tns:SbmlModelFilesType"</pre>
                              maxOccurs="unbounded" minOccurs="1" />
                              <xsd:element name="Warnings" type="xsd:string" maxOccurs="unbounded" minOccurs="0" />
                        </xsd:sequence>
                  </xsd:complexType>
            </xsd:element>
            <xsd:element name="ScaleGlobalParametersTextFault">
                  <xsd:complexType>
                        <xsd:sequence>
                              <xsd:element name="ScaleGlobalParametersTextFault" type="xsd:string" />
                        </xsd:sequence>
                  </xsd:complexType>
            </xsd:element>
            <xsd:element name="ScaleGlobalParametersBase64EncodedFault">
                  <xsd:complexType>
                        <xsd:sequence>
                              <xsd:element name="ScaleGlobalParametersBase64EncodedFault" type="xsd:string" />
                        </xsd:sequence>
                  </xsd:complexType>
            </xsd:element>
            <xsd:element name="ScaleGlobalParametersGzippedBase64EncodedFault">
                  <xsd:complexType>
                        <xsd:sequence>
                              <xsd:element name="ScaleGlobalParametersGzippedBase64EncodedFault" type="xsd:string" />
                        </xsd:sequence>
                  </xsd:complexType>
            </xsd:element>
     </xsd:schema>
</wsdl:types>
<wsdl:message name="ReplaceGlobalParametersRequest">
     <wsdl:part name="parameters" element="tns:ReplaceGlobalParameters" />
```

```
</wsdl:message>
<wsdl:message name="ReplaceGlobalParametersResponse">
     <wsdl:part element="tns:ReplaceGlobalParametersResponse" name="parameters" />
<wsdl:message name="ReplaceKineticLawParameterRequest">
      <wsdl:part_element="tns:ReplaceKineticLawParameter"_name="parameters"_/>
</wsdl:message>
<wsdl:message name="ReplaceKineticLawParameterResponse">
     <wsdl:part_element="tns:ReplaceKineticLawParameterResponse"_name="parameters"_/>
</wsdl:message>
<wsdl:message name="ValidateSBMLModelRequest">
     <wsdl:part name="parameters" element="tns:ValidateSBMLModel" />
<wsdl:message name="ValidateSBMLModelResponse">
      <wsdl:part name="parameters" element="tns:ValidateSBMLModelResponse" />
</wsdl:message>
<wsdl:message name="ScaleKineticLawParameterRequest">
     <wsdl:part name="parameters" element="tns:ScaleKineticLawParameter" />
</wsdl:message>
<wsdl:message name="ScaleKineticLawParameterResponse">
     <wsdl:part name="parameters" element="tns:ScaleKineticLawParameterResponse" />
</wsdl:message>
<wsdl:message name="ReplaceInitialConcentrationsOfSpeciesRequest">
     <wsdl:part name="parameters" element="tns:ReplaceInitialConcentrationsOfSpecies" />
</wsdl:message>
<wsdl:message name="ReplaceInitialConcentrationsOfSpeciesResponse">
      <wsdl:part_name="parameters" element="tns:ReplaceInitialConcentrationsOfSpeciesResponse" />
<wsdl:message name="AddKineticLawParameterRequest">
     <wsdl:part name="parameters" element="tns:AddKineticLawParameter" />
</wsdl:message>
<wsdl:message name="AddKineticLawParameterResponse">
     <wsdl:part name="parameters" element="tns:AddKineticLawParameterResponse" />
</wsdl:message>
<wsdl:message name="AddBoundsToKineticLawRequest">
     <wsdl:part name="parameters" element="tns:AddBoundsToKineticLaw" />
<wsdl:message name="AddBoundsToKineticLawResponse">
     <wsdl:part name="parameters" element="tns:AddBoundsToKineticLawResponse" />
</wsdl:message>
<wsdl:message name="SBMLmodFault">
     <wsdl:part name="fault" element="tns:SBMLmodFault" />
</wsdl:message>
<wsdl:message name="GetVersionRequest">
     <wsdl:part name="parameters" element="tns:GetVersion" />
</wsdl:message>
<wsdl:message name="GetVersionResponse">
      <wsdl:part name="parameters" element="tns:GetVersionResponse" />
</wsdl:message>
<wsdl:message name="ValidateSBMLModelTextRequest">
     <wsdl:part name="parameters" element="tns:ValidateSBMLModelText" />
</wsdl:message>
<wsdl:message name="ValidateSBMLModelTextResponse">
      <wsdl:part name="parameters" element="tns:ValidateSBMLModelTextResponse" />
</wsdl:message>
<wsdl:message name="ValidateSBMLModelBase64EncodedRequest">
     <wsdl:part name="parameters" element="tns:ValidateSBMLModelBase64Encoded" />
<wsdl:message name="ValidateSBMLModelBase64EncodedResponse">
     <wsdl:part_name="parameters"_element="tns:ValidateSBMLModelBase64EncodedResponse"_/>
</wsdl:message>
<wsdl:message name="ValidateSBMLModelGzippedBase64EncodedReguest">
     <wsdl:part name="parameters" element="tns:ValidateSBMLModelGzippedBase64Encoded" />
</wsdl:message>
<wsdl:message name="ValidateSBMLModelGzippedBase64EncodedResponse">
     <wsdl:part name="parameters" element="tns:ValidateSBMLModelGzippedBase64EncodedResponse" />
```

```
</wsdl:message>
<wsdl:message name="ReplaceGlobalParametersTextRequest">
     <wsdl:part name="parameters" element="tns:ReplaceGlobalParametersText" />
<wsdl:message name="ReplaceGlobalParametersTextResponse">
      <wsdl:part name="parameters" element="tns:ReplaceGlobalParametersTextResponse" />
</wsdl:message>
<wsdl:message name="ReplaceGlobalParametersTextFault">
      <wsdl:part name="parameters" element="tns:ReplaceGlobalParametersTextFault" />
</wsdl:message>
<wsdl:message name="ReplaceGlobalParametersBase64EncodedRequest">
     <wsdl:part_name="parameters"_element="tns:ReplaceGlobalParametersBase64Encoded"_/>
<wsdl:message name="ReplaceGlobalParametersBase64EncodedResponse">
      <wsdl:part name="parameters" element="tns:ReplaceGlobalParametersBase64EncodedResponse" />
</wsdl:message>
<wsdl:message name="ReplaceGlobalParametersBase64EncodedFault">
     <wsdl:part name="parameters" element="tns:ReplaceGlobalParametersBase64EncodedFault" />
</wsdl:message>
<wsdl:message name="ReplaceGlobalParametersGzippedBase64EncodedRequest">
     <wsdl:part_name="parameters" element="tns:ReplaceGlobalParametersGzippedBase64Encoded" />
<wsdl:message name="ReplaceGlobalParametersGzippedBase64EncodedResponse">
     <wsdl:part name="parameters" element="tns:ReplaceGlobalParametersGzippedBase64EncodedResponse" />
</wsdl:message>
<wsdl:message name="ReplaceGlobalParametersGzippedBase64EncodedFault">
      <wsdl:part name="parameters" element="tns:ReplaceGlobalParametersGzippedBase64EncodedFault" />
<wsdl:message name="ReplaceKineticLawParameterTextRequest">
     <wsdl:part name="parameters" element="tns:ReplaceKineticLawParameterText" />
</wsdl:message>
<wsdl:message name="ReplaceKineticLawParameterTextResponse">
     <wsdl:part_name="parameters" element="tns:ReplaceKineticLawParameterTextResponse" />
</wsdl:message>
<wsdl:message name="ReplaceKineticLawParameterBase64EncodedRequest">
     <wsdl:part name="parameters" element="tns:ReplaceKineticLawParameterBase64Encoded" />
<wsdl:message name="ReplaceKineticLawParameterBase64EncodedResponse">
     <wsdl:part name="parameters" element="tns:ReplaceKineticLawParameterBase64EncodedResponse" />
</wsdl:message>
<wsdl:message name="ReplaceKineticLawParameterGzippedBase64EncodedRequest">
     <wsdl:part name="parameters"_element="tns:ReplaceKineticLawParameterGzippedBase64Encoded"_/>
<wsdl:message name="ReplaceKineticLawParameterGzippedBase64EncodedResponse">
      <wsdl:part name="parameters" element="tns:ReplaceKineticLawParameterGzippedBase64EncodedResponse" />
</wsdl:message>
<wsdl:message name="ReplaceKineticLawParameterTextFault">
      <wsdl:part name="parameters" element="tns:ReplaceKineticLawParameterTextFault" />
</wsdl:message>
<wsdl:message name="ReplaceKineticLawParameterBase64EncodedFault">
     <wsdl:part_name="parameters"_element="tns:ReplaceKineticLawParameterBase64EncodedFault"_/>
</wsdl:message>
<wsdl:message name="ReplaceKineticLawParameterGzippedBase64EncodedFault">
      <wsdl:part name="parameters" element="tns:ReplaceKineticLawParameterGzippedBase64EncodedFault" _/>
</wsdl:message>
<wsdl:message name="ReplaceGlobalParamtersBase64EncodedFault">
     <wsdl:part_name="parameters" element="tns:ReplaceGlobalParamtersBase64EncodedFault" />
<wsdl:message name="ScaleKineticLawParameterTextRequest">
     <wsdl:part name="parameters" element="tns:ScaleKineticLawParameterText" />
</wsdl:message>
wsdl:message name="ScaleKineticLawParameterTextResponse">
     <wsdl:part name="parameters" element="tns:ScaleKineticLawParameterTextResponse" />
</wsdl:message>
<wsdl:message name="ScaleKineticLawParameterBase64EncodedRequest">
     <wsdl:part name="parameters" element="tns:ScaleKineticLawParameterBase64Encoded" />
```

```
</wsdl:message>
<wsdl:message name="ScaleKineticLawParameterBase64EncodedResponse">
     <wsdl:part name="parameters" element="tns:ScaleKineticLawParameterBase64EncodedResponse" />
<wsdl:message name="ScaleKineticLawParameterGzippedBase64EncodedRequest">
     <wsdl:part_name="parameters" element="tns:ScaleKineticLawParameterGzippedBase64Encoded" />
<wsdl:message name="ScaleKineticLawParameterGzippedBase64EncodedResponse">
     <wsdl:part name="parameters" element="tns:ScaleKineticLawParameterGzippedBase64EncodedResponse" />
</wsdl:message>
<wsdl:message name="ScaleKineticLawParameterTextFault">
     <wsdl:part name="parameters" element="tns:ScaleKineticLawParameterTextFault" />
<wsdl:message name="ScaleKineticLawParameterBase64EncodedFault">
     <wsdl:part name="parameters" element="tns:ScaleKineticLawParameterBase64EncodedFault" />
</wsdl:message>
<wsdl:message name="ScaleKineticLawParameterGzippedBase64EncodedFault">
     <wsdl:part name="parameters" element="tns:ScaleKineticLawParameterGzippedBase64EncodedFault" />
</wsdl:message>
<wsdl:message name="AddBoundsToKineticLawTextRequest">
     <wsdl:part name="parameters" element="tns:AddBoundsToKineticLawText" />
<wsdl:message name="AddBoundsToKineticLawTextResponse">
     <wsdl:part name="parameters" element="tns:AddBoundsToKineticLawTextResponse" />
</wsdl:message>
<wsdl:message name="AddBoundsToKineticLawBase64EncodedRequest">
     <wsdl:part_name="parameters"_element="tns:AddBoundsToKineticLawBase64Encoded"_/>
<wsdl:message name="AddBoundsToKineticLawBase64EncodedResponse">
     <wsdl:part name="parameters" element="tns:AddBoundsToKineticLawBase64EncodedResponse" />
</wsdl:message>
<wsdl:message name="AddBoundsToKineticLawGzippedBase64EncodedRequest">
     <wsdl:part name="parameters" element="tns:AddBoundsToKineticLawGzippedBase64Encoded" />
</wsdl:message>
<wsdl:message name="AddBoundsToKineticLawGzippedBase64EncodedResponse">
     <wsdl:part name="parameters" element="tns:AddBoundsToKineticLawGzippedBase64EncodedResponse" />
<wsdl:message name="AddBoundsToKineticLawTextFault">
     <wsdl:part name="parameters" element="tns:AddBoundsToKineticLawTextFault" />
</wsdl:message>
<wsdl:message name="AddBoundsToKineticLawBase64EncodedFault">
     <wsdl:part name="parameters" element="tns:AddBoundsToKineticLawBase64EncodedFault" />
<wsdl:message name="AddBoundsToKineticLawGzippedBase64EncodedFault">
     <wsdl:part name="parameters" element="tns:AddBoundsToKineticLawGzippedBase64EncodedFault" />
</wsdl:message>
<wsdl:message name="ReplaceInitialConcentrationsOfSpeciesTextRequest">
     <wsdl:part name="parameters" element="tns:ReplaceInitialConcentrationsOfSpeciesText" />
</wsdl:message>
<wsdl:message name="ReplaceInitialConcentrationsOfSpeciesTextResponse">
     <wsdl:part name="parameters" element="tns:ReplaceInitialConcentrationsOfSpeciesTextResponse" />
</wsdl:message>
<wsdl:message name="ReplaceInitialConcentrationsOfSpeciesBase64EncodedRequest">
     <wsdl:part name="parameters" element="tns:ReplaceInitialConcentrationsOfSpeciesBase64Encoded" />
</wsdl:message>
<wsdl:message name="ReplaceInitialConcentrationsOfSpeciesBase64EncodedResponse">
     <wsdl:part name="parameters" element="tns:ReplaceInitialConcentrationsOfSpeciesBase64EncodedResponse" />
<wsdl:message name="ReplaceInitialConcentrationsOfSpeciesGzippedBase64EncodedRequest">
     <wsdl:part name="parameters" element="tns:ReplaceInitialConcentrationsOfSpeciesGzippedBase64Encoded" />
</wsdl:message>
<wsdl:message name="ReplaceInitialConcentrationsOfSpeciesGzippedBase64EncodedResponse">
     </wsdl:message>
<wsdl:message name="ReplaceInitialConcentrationsOfSpeciesTextFault">
     <wsdl:part name="parameters" element="tns:ReplaceInitialConcentrationsOfSpeciesTextFault" />
```

```
</wsdl:message>
<wsdl:message name="ReplaceInitialConcentrationsOfSpeciesBase64EncodedFault">
     <wsdl:part_name="parameters"_element="tns:ReplaceInitialConcentrationsOfSpeciesBase64EncodedFault"_/>
<wsdl:message name="ReplaceInitialConcentrationsOfSpeciesGzippedBase64EncodedFault">
      <wsdl:part name="parameters" element="tns:ReplaceInitialConcentrationsOfSpeciesGzippedBase64EncodedFault" />
<wsdl:message name="ScaleGlobalParametersTextRequest">
      <wsdl:part name="parameters" element="tns:ScaleGlobalParametersText" />
</wsdl:message>
<wsdl:message name="ScaleGlobalParametersTextResponse">
     <wsdl:part name="parameters" element="tns:ScaleGlobalParametersTextResponse" />
<wsdl:message name="ScaleGlobalParametersBase64EncodedRequest">
      <wsdl:part name="parameters" element="tns:ScaleGlobalParametersBase64Encoded" />
</wsdl:message>
<wsdl:message name="ScaleGlobalParametersBase64EncodedResponse">
     <wsdl:part name="parameters" element="tns:ScaleGlobalParametersBase64EncodedResponse" />
</wsdl:message>
<wsdl:message name="ScaleGlobalParametersGzippedBase64EncodedRequest">
     <wsdl:part_name="parameters" element="tns:ScaleGlobalParametersGzippedBase64Encoded" />
<wsdl:message name="ScaleGlobalParametersGzippedBase64EncodedResponse">
     <wsdl:part name="parameters" element="tns:ScaleGlobalParametersGzippedBase64EncodedResponse" />
</wsdl:message>
<wsdl:message name="ScaleGlobalParametersTextFault">
      <wsdl:part name="fault" element="tns:SBMLmodFault" />
<wsdl:message name="ScaleGlobalParametersBase64EncodedFault">
     cwsdl:part name="parameters" element="tns:ScaleGlobalParametersBase64EncodedFault" />
</wsdl:message>
<wsdl:message name="ScaleGlobalParametersGzippedBase64EncodedFault">
     <wsdl:part name="parameters" element="tns:ScaleGlobalParametersGzippedBase64EncodedFault" />
</wsdl:message>
<wsdl:portType name="SBMLmod">
      <wsdl:operation name="ReplaceGlobalParameters">
            <wsdl:input message="tns:ReplaceGlobalParametersRequest" />
            <wsdl:output message="tns:ReplaceGlobalParametersResponse" />
            <wsdl:fault name="ReplaceGlobalParametersFault" message="tns:SBMLmodFault" />
      </wsdl:operation>
      <wsdl:operation name="ReplaceKineticLawParameter">
            <wsdl:input message="tns:ReplaceKineticLawParameterRequest" />
            <wsdl:output message="tns:ReplaceKineticLawParameterResponse" />
            <wsdl:fault name="ReplaceKineticLawParameterFault" message="tns:SBMLmodFault" />
      </wsdl:operation>
      <wsdl:operation name="ValidateSBMLModel">
            <wsdl:input message="tns:ValidateSBMLModelRequest" />
            <wsdl:output message="tns:ValidateSBMLModelResponse" />
            <wsdl:fault name="ValidateSBMLModelFault" message="tns:SBMLmodFault" />
      </wsdl:operation>
      <wsdl:operation name="ScaleKineticLawParameter">
            <wsdl:input message="tns:ScaleKineticLawParameterRequest" />
            <wsdl:output message="tns:ScaleKineticLawParameterResponse" />
            <wsdl:fault name="ScaleKineticLawParameterFault" message="tns:SBMLmodFault" />
      </wsdl:operation>
      <wsdl:operation name="AddKineticLawParameter">
            <wsdl:input message="tns:AddKineticLawParameterRequest" />
            <wsdl:output message="tns:AddKineticLawParameterResponse" />
            <wsdl:fault name="AddKineticLawParameterFault" message="tns:SBMLmodFault" />
      </wsdl:operation>
      <wsdl:operation name="AddBoundsToKineticLaw">
            <wsdl:input message="tns:AddBoundsToKineticLawRequest" />
            <wsdl:output message="tns:AddBoundsToKineticLawResponse" />
            <wsdl:fault name="AddBoundsToKineticLawFault" message="tns:SBMLmodFault" />
      </wsdl:operation>
```

```
<wsdl:operation name="ReplaceInitialConcentrationsOfSpecies">
     <wsdl:input message="tns:ReplaceInitialConcentrationsOfSpeciesRequest" />
     <wsdl:output message="tns:ReplaceInitialConcentrationsOfSpeciesResponse" />
      <wsdl:fault_name="ReplaceInitialConcentrationsOfSpeciesFault" message="tns:SBMLmodFault" />
</wsdl:operation>
<wsdl:operation name="GetVersion">
     <wsdl:input message="tns:GetVersionRequest" />
     <wsdl:output message="tns:GetVersionResponse" />
</wsdl:operation>
<wsdl:operation name="ValidateSBMLModelText">
      <wsdl:input message="tns:ValidateSBMLModelTextRequest"_/>
      <wsdl:output message="tns:ValidateSBMLModelTextResponse" />
      <wsdl:fault name="ValidateSBMLTextFault" message="tns:SBMLmodFault" />
</wsdl:operation>
<wsdl:operation name="ValidateSBMLModelBase64Encoded">
     <wsdl:input message="tns:ValidateSBMLModelBase64EncodedRequest"_/>
      <wsdl:output message="tns:ValidateSBMLModelBase64EncodedResponse"_/>
      <wsdl:fault name="ValidateSBMLbase64encodedFault" message="tns:SBMLmodFault" />
</wsdl:operation>
<wsdl:operation name="ValidateSBMLModelGzippedBase64Encoded">
     <wsdl:input message="tns:ValidateSBMLModelGzippedBase64EncodedRequest"_/>
     <wsdl:output message="tns:ValidateSBMLModelGzippedBase64EncodedResponse" />
      <wsdl:fault name="ValidateSBMLbase64encodedGzippedFault" message="tns:SBMLmodFault" />
</wsdl:operation>
<wsdl:operation name="ReplaceGlobalParametersText">
     <wsdl:input message="tns:ReplaceGlobalParametersTextRequest" />
     <wsdl:output message="tns:ReplaceGlobalParametersTextResponse" />
      <wsdl:fault name="ReplaceGlobalParamtersTextFault" message="tns:SBMLmodFault" />
</wsdl:operation>
<wsdl:operation name="ReplaceGlobalParametersGzippedBase64Encoded">
      <wsdl:input message="tns:ReplaceGlobalParametersGzippedBase64EncodedRequest" />
     <wsdl:output message="tns:ReplaceGlobalParametersGzippedBase64EncodedResponse"_/>
     <wsdl:fault name="ReplaceGlobalParametersGzippedBase64EncodedFault" message="tns:SBMLmodFault" />
</wsdl:operation>
<wsdl:operation name="ReplaceKineticLawParameterText">
      <wsdl:input message="tns:ReplaceKineticLawParameterTextRequest" />
     <wsdl:output message="tns:ReplaceKineticLawParameterTextResponse"_/>
      <wsdl:fault name="ReplaceKineticLawParameterTextFault" message="tns:SBMLmodFault" />
</wsdl:operation>
<wsdl:operation name="ReplaceKineticLawParameterBase64Encoded">
     <wsdl:input message="tns:ReplaceKineticLawParameterBase64EncodedRequest"_/>
      <wsdl:output message="tns:ReplaceKineticLawParameterBase64EncodedResponse" />
      <wsdl:fault name="ReplaceKineticLawParamterBase64EncodedFault" message="tns:SBMLmodFault" />
</wsdl:operation>
<wsdl:operation name="ReplaceKineticLawParameterGzippedBase64Encoded">
      <wsdl:input message="tns:ReplaceKineticLawParameterGzippedBase64EncodedRequest"_/>
     <wsdl:output message="tns:ReplaceKineticLawParameterGzippedBase64EncodedResponse" />
      </wsdl:operation>
<wsdl:operation name="ReplaceGlobalParametersBase64Encoded">
     <wsdl:input message="tns:ReplaceGlobalParametersBase64EncodedRequest" />
     <wsdl:output message="tns:ReplaceGlobalParametersBase64EncodedResponse" />
      <wsdl:fault name="ReplaceGlobalParametersBase64EncodedFault" message="tns:SBMLmodFault" />
</wsdl:operation>
<wsdl:operation name="ScaleKineticLawParameterText">
     <wsdl:input message="tns:ScaleKineticLawParameterTextRequest" />
     <wsdl:output message="tns:ScaleKineticLawParameterTextResponse" />
     <wsdl:fault name="fault" message="tns:SBMLmodFault" />
</wsdl:operation>
<wsdl:operation name="ScaleKineticLawParameterBase64Encoded">
      <wsdl:input message="tns:ScaleKineticLawParameterBase64EncodedRequest"_ />
      <wsdl:output message="tns:ScaleKineticLawParameterBase64EncodedResponse" />
      <wsdl:fault name="fault" message="tns:SBMLmodFault" />
</wsdl:operation>
```

```
<wsdl:operation name="ScaleKineticLawParameterGzippedBase64Encoded">
            <wsdl:input message="tns:ScaleKineticLawParameterGzippedBase64EncodedRequest" />
            <wsdl:output message="tns:ScaleKineticLawParameterGzippedBase64EncodedResponse" />
            <wsdl:fault name="fault" message="tns:SBMLmodFault" />
      </wsdl:operation>
      <wsdl:operation name="AddBoundsToKineticLawText">
            <wsdl:input message="tns:AddBoundsToKineticLawTextRequest" />
            <wsdl:output message="tns:AddBoundsToKineticLawTextResponse"_/>
            <wsdl:fault name="fault" message="tns:SBMLmodFault" />
      </wsdl:operation>
      <wsdl:operation name="AddBoundsToKineticLawBase64Encoded">
            <wsdl:input message="tns:AddBoundsToKineticLawBase64EncodedRequest"_/>
            <wsdl:output message="tns:AddBoundsToKineticLawBase64EncodedResponse"_/>
            <wsdl:fault name="fault" message="tns:SBMLmodFault" />
      </wsdl:operation>
      <wsdl:operation name="AddBoundsToKineticLawGzippedBase64Encoded">
            <wsdl:input message="tns:AddBoundsToKineticLawGzippedBase64EncodedReguest"_/>
            <wsdl:output message="tns:AddBoundsToKineticLawGzippedBase64EncodedResponse" />
            <wsdl:fault name="fault" message="tns:SBMLmodFault" />
      </wsdl:operation>
      <wsdl:operation name="ReplaceInitialConcentrationsOfSpeciesText">
            <wsdl:input message="tns:ReplaceInitialConcentrationsOfSpeciesTextRequest"_/>
            <wsdl:output message="tns:ReplaceInitialConcentrationsOfSpeciesTextResponse" />
            <wsdl:fault name="fault" message="tns:SBMLmodFault" />
      </wsdl:operation>
      <wsdl:operation name="ReplaceInitialConcentrationsOfSpeciesBase64Encoded">
            <wsdl:input message="tns:ReplaceInitialConcentrationsOfSpeciesBase64EncodedRequest" />
            <wsdl:output message="tns:ReplaceInitialConcentrationsOfSpeciesBase64EncodedResponse" />
            <wsdl:fault name="fault" message="tns:SBMLmodFault" />
      </wsdl:operation>
      <wsdl:operation name="ReplaceInitialConcentrationsOfSpeciesGzippedBase64Encoded">
            <wsdl:input message="tns:ReplaceInitialConcentrationsOfSpeciesGzippedBase64EncodedRequest" />
            <wsdl:output message="tns:ReplaceInitialConcentrationsOfSpeciesGzippedBase64EncodedResponse" />
            <wsdl:fault name="fault" message="tns:SBMLmodFault" />
      </wsdl:operation>
      <wsdl:operation name="ScaleGlobalParametersText">
            <wsdl:input message="tns:ScaleGlobalParametersTextRequest" />
            <wsdl:output message="tns:ScaleGlobalParametersTextResponse" />
            <wsdl:fault name="fault" message="tns:SBMLmodFault" />
      </wsdl:operation>
      <wsdl:operation name="ScaleGlobalParametersBase64Encoded">
            <wsdl:input message="tns:ScaleGlobalParametersBase64EncodedRequest"_/>
            <wsdl:output message="tns:ScaleGlobalParametersBase64EncodedResponse" />
            <wsdl:fault name="fault" message="tns:SBMLmodFault" />
      </wsdl:operation>
      <wsdl:operation name="ScaleGlobalParametersGzippedBase64Encoded">
            <wsdl:input message="tns:ScaleGlobalParametersGzippedBase64EncodedRequest" />
            <wsdl:output_message="tns:ScaleGlobalParametersGzippedBase64EncodedResponse"_/>
            <wsdl:fault name="fault" message="tns:SBMLmodFault" />
      </wsdl:operation>
</wsdl:portType>
<wsdl:binding name="SBMLmodSOAP" type="tns:SBMLmod">
      <soap:binding style="document" transport="http://schemas.xmlsoap.org/soap/http" />
      <wsdl:operation name="ReplaceGlobalParameters">
            <soap:operation soapAction="http://sbmlmod.uit.no:8080/sbmlmod/ReplaceGlobalParameters" />
            <wsdl:input>
                  <soap:body use="literal" />
            </wsdl:input>
            <wsdl:output>
                  <soap:body use="literal" />
            </wsdl:output>
            <wsdl:fault name="ReplaceGlobalParametersFault">
                  <soap:fault use="literal" name="ReplaceGlobalParametersFault" />
            </wsdl:fault>
      </wsdl:operation>
```

```
<wsdl:operation name="ReplaceKineticLawParameter">
      <soap:operation soapAction="http://sbmlmod.uit.no:8080/sbmlmod/ReplaceKineticLawParameter" />
      <wsdl:input>
            <soap:body use="literal" />
      </wsdl:input>
      <wsdl:output>
            <soap:body use="literal" />
      </wsdl:output>
      <wsdl:fault name="ReplaceKineticLawParameterFault">
            <soap:fault use="literal" name="ReplaceKineticLawParameterFault" />
      </wsdl:fault>
</wsdl:operation>
<wsdl:operation name="ValidateSBMLModel">
      <soap:operation soapAction="http://sbmlmod.uit.no:8080/sbmlmod/ValidateSBMLModel" />
      <wsdl:input>
            <soap:body use="literal" />
      </wsdl:input>
      <wsdl:output>
            <soap:body use="literal" />
      </wsdl:output>
      <wsdl:fault name="ValidateSBMLModelFault">
            <soap:fault use="literal" name="ValidateSBMLModelFault" />
      </wsdl:fault>
</wsdl:operation>
<wsdl:operation name="ScaleKineticLawParameter">
      <soap:operation soapAction="http://sbmlmod.uit.no:8080/sbmlmod/ScaleKineticLawParameter" />
      <wsdl:input>
            <soap:body use="literal" />
      </wsdl:input>
      <wsdl:output>
            <soap:body use="literal" />
      </wsdl:output>
      <wsdl:fault name="ScaleKineticLawParameterFault">
            <soap:fault use="literal" name="ScaleKineticLawParameterFault" />
      </wsdl:fault>
</wsdl:operation>
<wsdl:operation name="AddKineticLawParameter">
      <soap:operation soapAction="http://sbmlmod.uit.no:8080/sbmlmod/AddKineticLawParameter" />
      <wsdl:input>
            <soap:body use="literal" />
      </wsdl:input>
      <wsdl:output>
            <soap:body use="literal" />
      </wsdl:output>
      <wsdl:fault name="AddKineticLawParameterFault">
             <soap:fault use="literal" name="AddKineticLawParameterFault" />
      </wsdl:fault>
</wsdl:operation>
<wsdl:operation name="AddBoundsToKineticLaw">
      <soap:operation soapAction="http://sbmlmod.uit.no:8080/sbmlmod/AddBoundsToKineticLaw" />
      <wsdl:input>
            <soap:body use="literal" />
      </wsdl:input>
      <wsdl:output>
            <soap:body use="literal" />
      </wsdl:output>
      <wsdl:fault name="AddBoundsToKineticLawFault">
            csoap:fault use="literal" name="AddBoundsToKineticLawFault" />
      </wsdl:fault>
</wsdl:operation>
<wsdl:operation name="ReplaceInitialConcentrationsOfSpecies">
      <soap:operation soapAction="http://sbmlmod.uit.no:8080/sbmlmod/ReplaceInitialConcentrationsOfSpecies" />
      <wsdl:input>
            <soap:body use="literal" />
      </wsdl:input>
      <wsdl:output>
```

```
<soap:body use="literal" />
      </wsdl:output>
      <wsdl:fault name="ReplaceInitialConcentrationsOfSpeciesFault">
            <soap:fault use="literal" name="ReplaceInitialConcentrationsOfSpeciesFault" />
      </wsdl:fault>
</wsdl:operation>
<wsdl:operation name="GetVersion">
      <soap:operation soapAction="http://sbmlmod.uit.no:8080/sbmlmod/GetVersion" />
      <wsdl:input>
            <soap:body use="literal" />
      </wsdl:input>
      <wsdl:output>
            <soap:body use="literal" />
      </wsdl:output>
</wsdl:operation>
<wsdl:operation name="ValidateSBMLModelText">
      <soap:operation soapAction="http://sbmlmod.uit.no:8080/sbmlmod/ValidateSBMLModelText" />
      <wsdl:input>
            <soap:body use="literal" />
      </wsdl:input>
      <wsdl:output>
            <soap:body use="literal" />
      </wsdl:output>
      <wsdl:fault name="ValidateSBMLTextFault">
            <soap:fault use="literal" name="ValidateSBMLTextFault" />
      </wsdl:fault>
</wsdl:operation>
<wsdl:operation name="ValidateSBMLModelBase64Encoded">
      <soap:operation soapAction="http://sbmlmod.uit.no:8080/sbmlmod/ValidateSBMLModelBase64Encoded" />
      <wsdl:input>
            <soap:body use="literal" />
      </wsdl:input>
      <wsdl:output>
            <soap:body use="literal" />
      </wsdl:output>
      <wsdl:fault name="ValidateSBMLbase64encodedFault">
             <soap:fault use="literal" name="ValidateSBMLbase64encodedFault" />
      </wsdl:fault>
</wsdl:operation>
<wsdl:operation name="ValidateSBMLModelGzippedBase64Encoded">
      <soap:operation soapAction="http://sbmlmod.uit.no:8080/sbmlmod/ValidateSBMLModelGzippedBase64Encoded" />
      <wsdl:input>
            <soap:body use="literal" />
      </wsdl:input>
      <wsdl:output>
            <soap:body use="literal" />
      </wsdl:output>
      <wsdl:fault name="ValidateSBMLbase64encodedGzippedFault">
            soap:fault use="literal" name="ValidateSBMLbase64encodedGzippedFault" />
      </wsdl:fault>
</wsdl:operation>
<wsdl:operation name="ReplaceGlobalParametersText">
      <soap:operation soapAction="http://sbmlmod.uit.no:8080/sbmlmod/ReplaceGlobalParametersText" />
      <wsdl:input>
            <soap:body use="literal" />
      </wsdl:input>
      <wsdl:output>
            <soap:body use="literal" />
      </wsdl:output>
      <wsdl:fault name="ReplaceGlobalParamtersTextFault">
            <soap:fault use="literal" name="ReplaceGlobalParamtersTextFault" />
      </wsdl:fault>
</wsdl:operation>
<wsdl:operation name="ReplaceGlobalParametersBase64Encoded">
      <soap:operation soapAction="http://sbmlmod.uit.no:8080/sbmlmod/ReplaceGlobalParametersBase64Encoded" />
      <wsdl:input>
```

```
<soap:body use="literal" />
      </wsdl:input>
      <wsdl:output>
            <soap:body use="literal" />
      </wsdl:output>
      <wsdl:fault name="ReplaceGlobalParametersBase64EncodedFault">
             <soap:fault use="literal" name="ReplaceGlobalParametersBase64EncodedFault" />
      </wsdl:fault>
</wsdl:operation>
<wsdl:operation name="ReplaceGlobalParametersGzippedBase64Encoded">
      <soap:operation
      soapAction="http://sbmlmod.uit.no:8080/sbmlmod/ReplaceGlobalParametersGzippedBase64Encoded" />
            <soap:body use="literal" />
      </wsdl:input>
      <wsdl:output>
            <soap:body use="literal" />
      </wsdl:output>
      <wsdl:fault name="ReplaceGlobalParametersGzippedBase64EncodedFault">
             <soap:fault use="literal" name="ReplaceGlobalParametersGzippedBase64EncodedFault" />
      </wsdl:fault>
</wsdl:operation>
<wsdl:operation name="ReplaceKineticLawParameterText">
      <soap:operation soapAction="http://sbmlmod.uit.no:8080/sbmlmod/ReplaceKineticLawParameterText" />
      <wsdl:input>
            <soap:body use="literal" />
      </wsdl:input>
      <wsdl:output>
            <soap:body use="literal" />
      </wsdl:output>
      <wsdl:fault name="ReplaceKineticLawParameterTextFault">
             <soap:fault use="literal" name="ReplaceKineticLawParameterTextFault" />
      </wsdl:fault>
</wsdl:operation>
<wsdl:operation name="ReplaceKineticLawParameterBase64Encoded">
      <soap:operation soapAction="http://sbmlmod.uit.no:8080/sbmlmod/ReplaceKineticLawParameterBase64Encoded" />
            <soap:body use="literal" />
      </wsdl:input>
      <wsdl:output>
            <soap:body use="literal" />
      </wsdl:output>
      <wsdl:fault name="ReplaceKineticLawParamterBase64EncodedFault">
            <soap:fault use="literal" name="ReplaceKineticLawParamterBase64EncodedFault" />
      </wsdl:fault>
</wsdl:operation>
<wsdl:operation name="ReplaceKineticLawParameterGzippedBase64Encoded">
      <soap:operation
      soapAction="http://sbmlmod.uit.no:8080/sbmlmod/ReplaceKineticLawParameterGzippedBase64Encoded" />
      <wsdl:input>
            <soap:body use="literal" />
      </wsdl:input>
      <wsdl:output>
            <soap:body use="literal" />
      </wsdl:output>
      <wsdl:fault name="ReplaceKineticLawParamterGzippedBase64Encoded">
            <soap:fault use="literal" name="ReplaceKineticLawParamterGzippedBase64Encoded" />
      </wsdl:fault>
</wsdl:operation>
<wsdl:operation name="ScaleKineticLawParameterText">
      <soap:operation soapAction="http://sbmlmod.uit.no:8080/sbmlmod/ScaleKineticLawParameterText" />
      <wsdl:input>
            <soap:body use="literal" />
      </wsdl:input>
      <wsdl:output>
            <soap:body use="literal" />
      </wsdl:output>
```

```
<wsdl:fault name="fault">
            <soap:fault use="literal" name="fault" />
      </wsdl:fault>
</wsdl:operation>
<wsdl:operation name="ScaleKineticLawParameterBase64Encoded">
      <soap:operation soapAction="http://sbmlmod.uit.no:8080/sbmlmod/ScaleKineticLawParameterBase64Encoded" />
            <soap:body use="literal" />
      </wsdl:input>
      <wsdl:output>
            <soap:body use="literal" />
      </wsdl:output>
      <wsdl:fault name="fault">
            <soap:fault use="literal" name="fault" />
      </wsdl:fault>
</wsdl:operation>
<wsdl:operation name="ScaleKineticLawParameterGzippedBase64Encoded">
      <soap:operation
      soapAction="http://sbmlmod.uit.no:8080/sbmlmod/ScaleKineticLawParameterGzippedBase64Encoded" />
      <wsdl:input>
            <soap:body use="literal" />
      </wsdl:input>
      <wsdl:output>
            <soap:body use="literal" />
      </wsdl:output>
      <wsdl:fault name="fault">
            <soap:fault use="literal" name="fault" />
      </wsdl:fault>
</wsdl:operation>
<wsdl:operation name="AddBoundsToKineticLawText">
      <soap:operation soapAction="http://sbmlmod.uit.no:8080/sbmlmod/AddBoundsToKineticLawText" />
            <soap:body use="literal" />
      </wsdl:input>
      <wsdl:output>
            <soap:body use="literal" />
      </wsdl:output>
      <wsdl:fault name="fault">
            <soap:fault use="literal" name="fault" />
      </wsdl:fault>
</wsdl:operation>
<wsdl:operation name="AddBoundsToKineticLawBase64Encoded">
      <soap:operation soapAction="http://sbmlmod.uit.no:8080/sbmlmod/AddBoundsToKineticLawBase64Encoded" />
      <wsdl:input>
            <soap:body use="literal" />
      </wsdl:input>
      <wsdl:output>
            <soap:body use="literal" />
      </wsdl:output>
      <wsdl:fault name="fault">
            <soap:fault use="literal" name="fault" />
      </wsdl:fault>
</wsdl:operation>
<wsdl:operation name="AddBoundsToKineticLawGzippedBase64Encoded">
      <soap:operation soapAction="http://sbmlmod.uit.no:8080/sbmlmod/AddBoundsToKineticLawGzippedBase64Encoded"
      <wsdl:input>
            <soap:body use="literal" />
      </wsdl:input>
      <wsdl:output>
            <soap:body use="literal" />
      </wsdl:output>
      <wsdl:fault name="fault">
            <soap:fault use="literal" name="fault" />
      </wsdl:fault>
</wsdl:operation>
<wsdl:operation name="ReplaceInitialConcentrationsOfSpeciesText">
```

```
<soap:operation soapAction="http://sbmlmod.uit.no:8080/sbmlmod/ReplaceInitialConcentrationsOfSpeciesText" />
      <wsdl:input>
             <soap:body use="literal" />
      </wsdl:input>
      <wsdl:output>
             <soap:body use="literal" />
      </wsdl:output>
      <wsdl:fault name="fault">
             <soap:fault use="literal" name="fault" />
      </wsdl:fault>
</wsdl:operation>
<wsdl:operation name="ReplaceInitialConcentrationsOfSpeciesBase64Encoded">
      soapAction="http://sbmlmod.uit.no:8080/sbmlmod/ReplaceInitialConcentrationsOfSpeciesBase64Encoded" />
      <wsdl:input>
             <soap:body use="literal" />
      </wsdl:input>
      <wsdl:output>
             <soap:body use="literal" />
      </wsdl:output>
      <wsdl:fault name="fault">
             <soap:fault use="literal" name="fault" />
      </wsdl:fault>
</wsdl:operation>
<wsdl:operation name="ReplaceInitialConcentrationsOfSpeciesGzippedBase64Encoded">
      <soap:operation
      soapAction="http://sbmlmod.uit.no:8080/sbmlmod/ReplaceInitialConcentrationsOfSpeciesGzippedBase64Encoded" />
      <wsdl:input>
             <soap:body use="literal" />
      </wsdl:input>
      <wsdl:output>
             <soap:body use="literal" />
      </wsdl:output>
      <wsdl:fault name="fault">
             <soap:fault use="literal" name="fault" />
      </wsdl:fault>
</wsdl:operation>
<wsdl:operation name="ScaleGlobalParametersText">
      <soap:operation soapAction="http://sbmlmod.uit.no:8080/sbmlmod/ScaleGlobalParametersText" />
      <wsdl:input>
             <soap:body use="literal" />
      </wsdl:input>
      <wsdl:output>
             <soap:body use="literal" />
      </wsdl:output>
      <wsdl:fault name="fault">
             <soap:fault use="literal" name="fault" />
      </wsdl:fault>
</wsdl:operation>
<wsdl:operation name="ScaleGlobalParametersBase64Encoded">
      <soap:operation soapAction="http://sbmlmod.uit.no:8080/sbmlmod/ScaleGlobalParametersBase64Encoded" />
      <wsdl:input>
             <soap:body use="literal" />
      </wsdl:input>
      <wsdl:output>
             <soap:body use="literal" />
      </wsdl:output>
      <wsdl:fault name="fault">
             <soap:fault use="literal" name="fault" />
      </wsdl:fault>
</wsdl:operation>
<wsdl:operation name="ScaleGlobalParametersGzippedBase64Encoded">
      <soap:operation soapAction="http://sbmlmod.uit.no:8080/sbmlmod/ScaleGlobalParametersGzippedBase64Encoded"
      <wsdl:input>
             <soap:body use="literal" />
      </wsdl:input>
```

About wsdl-viewer.xsl

This page has been generated by wsdl-viewer.xsl, version 3.1.01

Author: tomi vanek

Download at http://tomi.vanek.sk/xml/wsdl-viewer.xsl.

The transformation was inspired by the article Uche Ogbuji: <u>WSDL processing with XSLT</u>

This document was generated by <u>libxslt</u> XSLT engine. The engine processed the WSDL in XSLT 1.0 compliant mode.

This page was generated by wsdl-viewer.xsl (http://tomi.vanek.sk)