



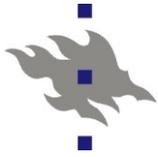
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Documentation of SIMO system

9.3.2006

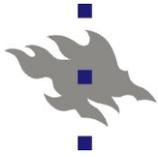
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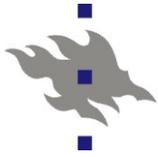
What kind of documentation SIMO has?

- Documents for users
 - Description of simulation system
 - Overall description of the system
 - Functionality of simulator module
 - Descriptions of XML-files (Data-XML, Model-XML, Lexicon-XML, Model chain-XML, ...)
 - Descriptions of simulations
 - Descriptions of Model chains
- Documents for developers
 - API (application programming interface)



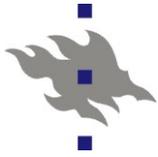
Description of SIMO system

- Overall description of the system
 - Introduction
 - Objectives
 - System components
 - List of other available documents
- Functionality of the simulator module
 - Introduction
 - Objectives
 - Terminology
 - Data, which are needed for the simulator module: Simulation control-XML, Model chain-XML ...
 - Use cases for the simulator module: create Data-XML, create Model-XML, ..., simulate



Description of SIMO system continues

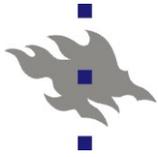
- Descriptions of XML-files
 - Introduction
 - XLM-file
 - Introduction
 - XSD (XML Schema Definition Language)
 - XML Schema describes the structure of the XLM-file
 - A verbal description of the structure
 - XML examples
 - Parts of XML-file in text format
 - To clarify the content of the file, a verbal description of the XML-file is often needed
- All the XML-documents are described in [SIMO_XML-file](#)



Implementation of models: Model Library

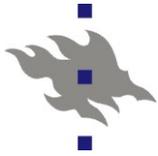
- Includes C implementations of all models used in the simulator
- There is documentation on how a new model library can be made and introduced
- For example: the implementation of

[Dominant height growth pine VuokilaValiaho](#)



API documentation for developers

- Includes all the functions used in the system modules
- Generated from the source code
- [SIMO-API](#)



Descriptions of Model chains, XML to HTML

- Simulations consist of groups of model chains
- Model chains include the knowledge how to use the forest models together to get the best possible solution to a certain task
- One alternative to describe the content of XML-file is to convert XML to another format, which is more readable
- Using XSL-transformation (Extensible Stylesheet Language Transformation) a XML-file can be converted for example to HTML-file
- XML Schema is needed to do XSL-transformation
- For example:
 - Model_chain: [Generate trees in original format](#)
 - Model_chain: [Generate trees in HTML-format](#)