

SimEx

Conversion of Simulink® / Stateflow® data into XML format

Overview

A lot of development tools used in the various phases of software development do not have an interface to the Simulink/Stateflow model data. Therefore, it is not possible to use the same model data in all the different phases of software development.

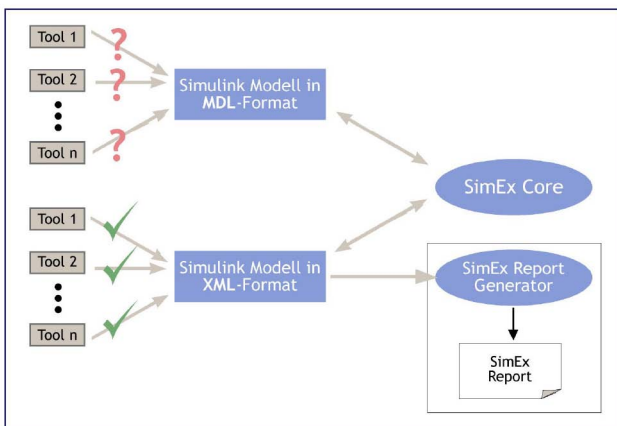
This circumstance is a big disadvantage with regard to the method of model-based software development increasingly used.

SimEx supports the deployment of an integrated tool environment by means of XML. XML can be used universally and enables developers to easily access the model data by XML parsers.

SimEx converts software model data from Simulink/Stateflow into the XML format. Furthermore, SimEx comprises a module for the retranslation of XML model data into the original MDL format. With this two-way conversion SimEx closes the gap between the development tools which do not have an interface to the Simulink/Stateflow model data.

Benefits of SimEx

- **Structure preserving conversion** of model and XML data in two directions
- **Integration of development tools** by XML interface
- **All over availability** of model data in XML format
- Choose between **universal** and **minimal DTD** for XML format
- Supports **XML format with and without attributes**
- **Report generation** from XML data without modelling tool
- Optional **batch mode** for converting several models simultaneously
- **Platform independence; easy installation**
- Intuitive **graphical user interface**

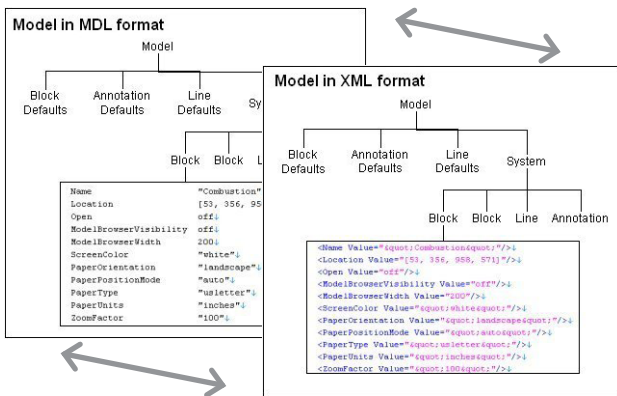


Structure preserving transformation of model data

The structure of the XML file generated by SimEx corresponds completely to the structure of the Simulink/Stateflow model data. There are two options for XML conversion: a minimal DTD and an universal, meta-model based DTD usable for all Simulink/Stateflow models. The user can choose between two versions of XML format: XML elements with or without attributes.

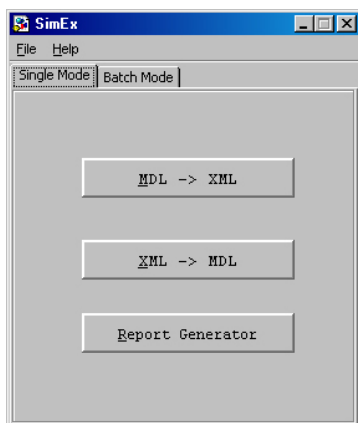
Retranslation from XML to MDL

SimEx features a function for retranslation of the XML model data into the MDL format. Thus, an extension or a modification of the model by external tools can be integrated into Simulink/Stateflow.



Graphical user interface

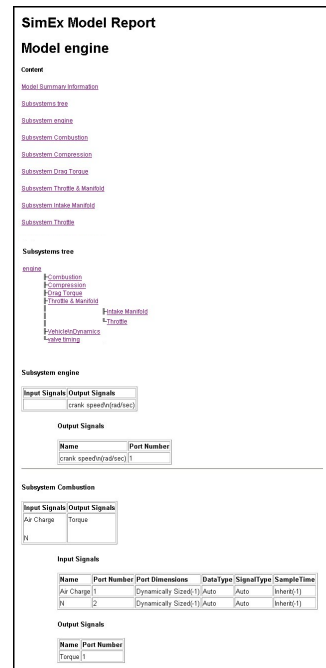
SimEx offers an intuitive and easy-to-use graphical user interface where the transformation into the XML format, the retranslation into the MDL format and the report generator can be chosen from.



Integrated Report Generator

SimEx's Report Generator extracts raw data from the XML data and thus demonstrates the capabilities of SimEx in a comprising report. The report will be generated in either XML format or HTML format.

The XML report can be displayed by means of style sheets with an XML browser. The user can choose between predefined or user-defined style sheets. The advantages of userdefined style sheets are an individual configuration as well as an individual report layout.



Platform independence

SimEx was implemented in Java. Therefore, SimEx runs on any platform.

System requirements

- Java Run Time Environment (JRE) or
- Java 2 Development Kit (JDK) version 1.4.2 or higher.

JRE is available for free at www.java.com.

Contact

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