



SOX

The Engineering Workbench



What makes SOX different



MULTI USER



UML / SYSML



SERVER / DATABASE



TOOL QUALIFICATION

The SOX Modules

Requirements, Design, HARA, TARA, ATA, Safety Concept
FMEA, FMEDA, FTA, BOM, Test, Review, Documents, Server



Requirements

Baselining, versioning, import of MS Excel, MS Word & ReqIF Merge data files, workflow support, reporting, safety traceability, user administration, history and compare functions, test case analysis, interfaces such as to IBM DOORS and more.



Design (SYSML / UML)

SOX comprises the full UML notation and supports SYSML 1.4 as well as UML 2.5 by powerful interfaces such as Enterprise Architect and connects its elements to all other modules.



HARA

Use the SOX HARA module to create your individual situation catalogues, determine ASIL levels as well as SIL levels (in accordance with ISO26262) and derive safety goals for your projects.



TARA

With the TARA module you analyze damage and threat scenarios related to the cybersecurity assets of your item. Rate the impact and attack feasibility in accordance with ISO 21434 to assess the risk and derive corresponding risks values (HEAVENS method also available). Finally decide about risk treatment and phrase your security goals. Asset identification can be done based on your UML/SYSML system design, supported by powerful SOX interfaces.



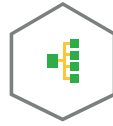
ATA

Assess the attack feasibility of a threat scenario by analyzing individual attack paths and identifying elements like attack goal, attack objective, attack method and asset attack. Create an ATA document from threat identified in TARA. Calculate attack feasibility, propagate it to the threat and pass over the rating to threat scenario in TARA. You may also connect requirements to gates in ATA.



Safety Concept

SOX provides different SYSML/UML diagrams and layers to model safety concepts in synchronization with SOX Requirements, SOX HARA and further SOX analysis modules like FMEA, FTA, FMEDA and Test Cases.



FMEA

Oriented towards VDA/AIAG, SOX provides a high performance FMEA module including synchronizing features to SYSML, SOX Requirements or SOX FMEDA. This is supported by powerful interfaces such as to MS Excel, APIS IQ FMEA (VDA/AIAG).



FMEDA

This SOX module calculates the metrics required for the verification of the obtained ASIL / SIL level with state machine support and synchronization features towards the SOX FMEA module



FTA

The FTA module enables the user to transform and edit fault tree analyses using previously created data out of other modules like e.g. SOX FMEA (various gates / events / simulations, variety of calculation methods, components catalogue).



BOM (Prediction)

Import or create your MS Excel Bill of Materials (BOM) file in the SOX BOM module to calculate effective FIT values based on standards like IEC 62380 and/or SN 29500.



Test & Validation

Use the SOX module Test Cases to create test suites, test cases & steps within a powerful workflow support, linkage to requirements and use the roundtrip to automatic testing tools such as Vector or dSPACE.



Review

In direct relation with each activity's extend of completion, you can allocate responsibilities for the tasks yet to be done (configurable rule wizards, extensive catalogue functions and workflow support).



Documents / Dashboard

Generate specific documents or use the web-based SOX dashboard to display project specific information like status of test cases and/or safety requirements, status of project tasks, and much more.



Server

The SOX Server architecture allows multi-user access in real time, versioning, user administration, rights and rules management and workflow support. Your data is stored on a centralized database and is available for all team members of your project.

Full integrations with:



ptc



jama
software®



IBM
Rational



Jira

The Main SOX USPs:

Server, versioning, multi-user access (1 to n user at the same time in the same document), UML/SYSML notation, TCL2 tool qualification, automatic safety traces, interfaces like ReqIF, MSR FMEA, MS Excel, XML, XMI and catalogue management.

Some of our satisfied customers:



BOSCH

OTIS



LG



embitel



AUTOMOTIVE
LIGHTING



KNORR-BREMSE



Melexis
INSPIRED. ENGINEERING



MAGNA
MAGNA POWERTRAIN



KTM TECHNOLOGIES