

*SILcal X is developed by
exida Development S.r.l Italy*

The main logo for SILcal x. "SIL" is in large red capital letters, "cal" is in large yellow lowercase letters, and "x" is in large red lowercase letters. A small "exida" logo is positioned above the "cal" part.

Fully Integrated Safety Analysis Tool

SILcal is an integrated tool suite designed to perform all the **Safety Analyses** required by ISO-26262 and IEC-61508 for the development of **safety critical systems** and their **hardware** and **software** components.

KEY FEATURES DESCRIPTION

FMEA – Full support to Failure Mode Effects Analysis, including process management support, compliant with VDA-AIAG 2019 standard.

FTA – Automatic generation of Fault Tree Analysis from FMEA failure model, cut-set analysis.

DFA –Exida DFA guideline.

FMEDA – Integration with FMEA, compliant with ISO-26262 and IEC-61508 recommendations.

Failure rates and failure mode distribution from industry standards (SN 29500, IEC TR 62380, etc.) and exida hardware component database.

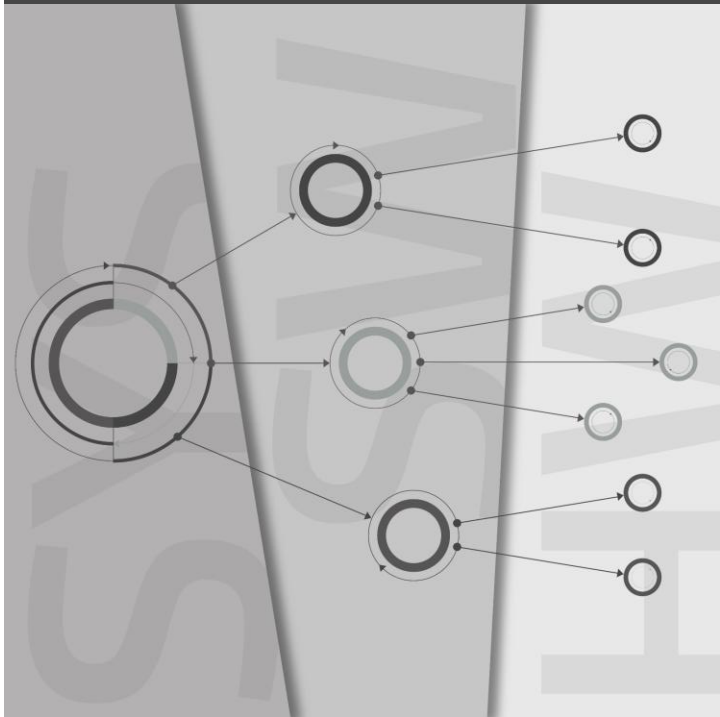
Consistency – Internal consistency between all safety analyses is guaranteed thanks to common data structure and aligned analyses methodologies.

(*) Database provided by SILcal X is based on Siemens SN29500 failure rate and stress profiles, considering fixed self-heating (see 'information' field for each component). Failure modes and distributions provided by exida Electronic DB, derived from recognized industry sources.



PACKAGES

- **SILcal X Q**
qualitative FMEA, no DBs
- **SILcal X QS**
qualitative FMEA + FMEDA + Siemens SN-29500 DB (*)
- **SILcal X QS+**
qualitative FMEA + FMEDA + FTA + DFA + Siemens SN-29500 DB (*)



INPUT

- Custom BOM import: possibility to import a customized HW component list to support FMEDA starting from an excel file
- Import from MSR-xml standard (FMEA only)

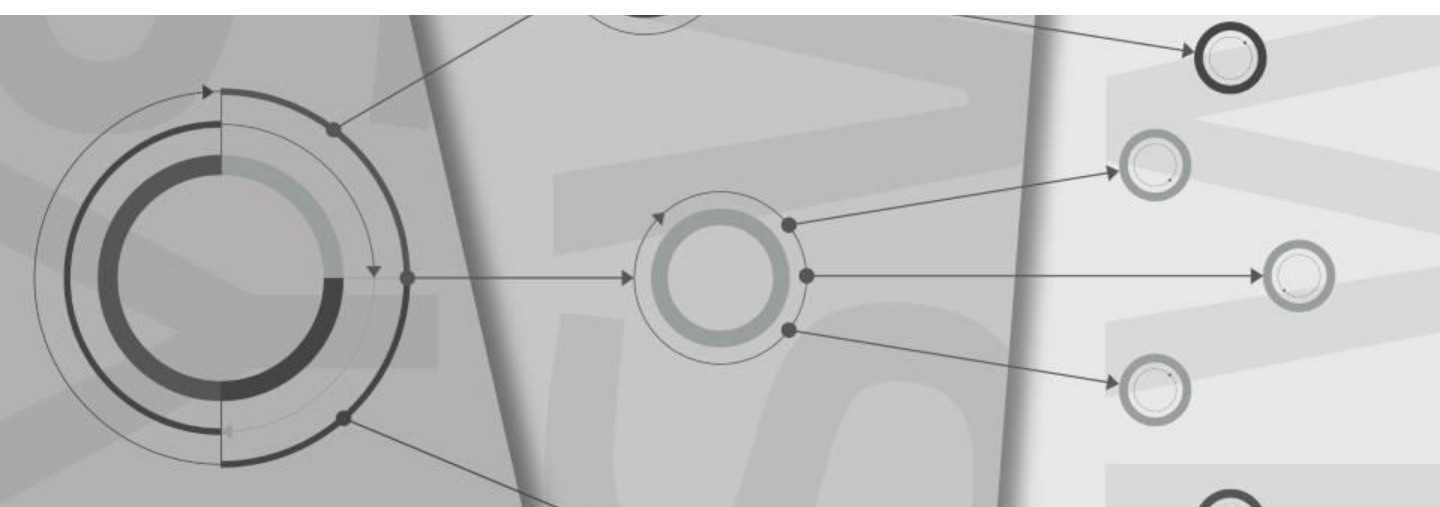
OUTPUT

- Safety Analysis Reports (format .xlsx): FMEA, FMEDA, DFA
- Export to MSR-xml standard (FMEA only)

MAIN IMPROVEMENTS VERSUS V9

As SILcal v9, **SILcal X** is a tool that supports you in the realization of all the Quality and Functional Safety analyses, and additionally:

- **SILcal X** is faster! The data elaboration was speeded up.
- **SILcal X** is simpler! New useful features are available while other operations were automated, making the work easier.
- **SILcal X** is VDA-AIAG compliant! It provides all the Optimization Steps and the FMEA- MSR as recommended by VDA-AIAG 2019. From now on, **SILcal** can be considered as a complete service platform that assists you in managing your projects. In an easy way, you may collect all the relevant information it needs to keep track of team members registrations, description of the planned actions and the defined timelines, project-related relevant documents and meeting minutes. The FMEA report includes both, the technical analysis and the project related plan and information, ensuring a full compliance with the VDA-AIAG standard.
- Due to the deep changes in the internal data structures, **SILcal X** can't directly upload the analyses generated by **SILcal v9**: to guarantee the operational continuity, a conversion tool is provided.



FUTURE EVOLUTIONS

SILcal X is growing. Our tool is constantly being improved.

We believe the SW solutions should meet the needs of users in the best way possible. This is reason why all the requests and the suggestions of our Customers are always taken into consideration, and if consistent with the aims of the tool, inserted in the development plan, with a priority normalized to the concurrent planned ones.