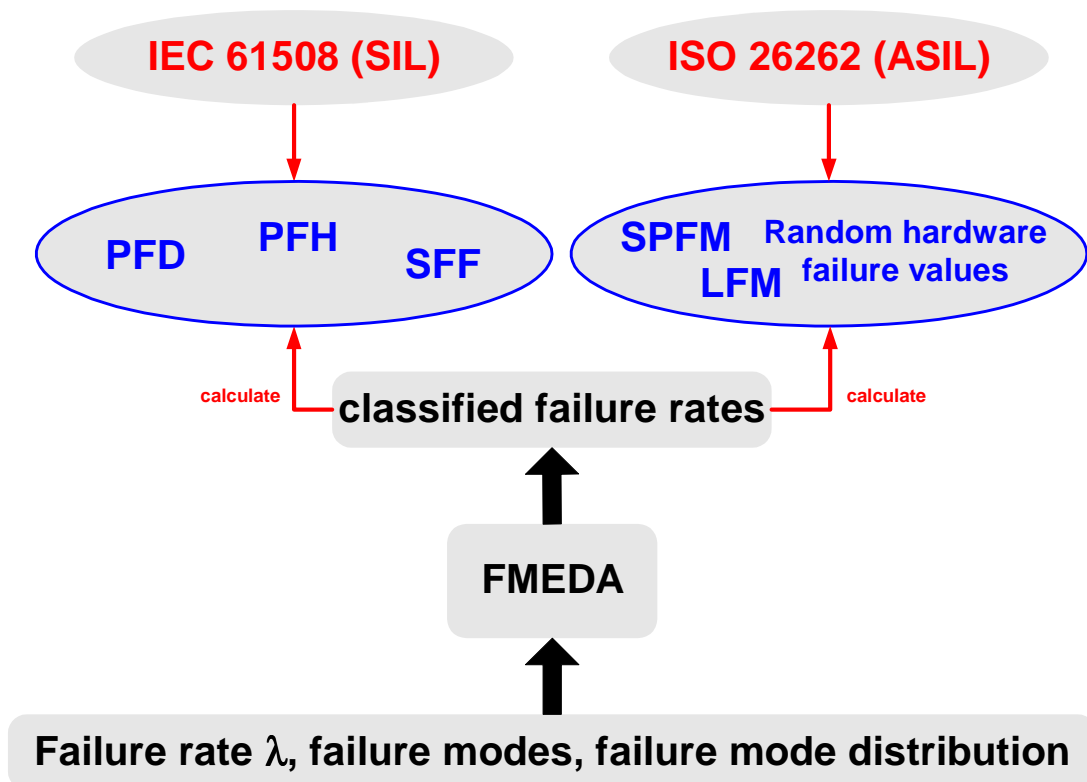


# SILcal

## Failure Modes, Effects and Diagnostics Analysis in compliance with EN/IEC 61508 and ISO 26262

SILcal is an analysis tool guiding through the FMEDA process and calculating classified failure rates and the Safe Failure Fraction (SFF) of an electronic or mechanical device according to the requirements of EN / IEC 61508-2 or the required safety metrics according to ISO 26262.

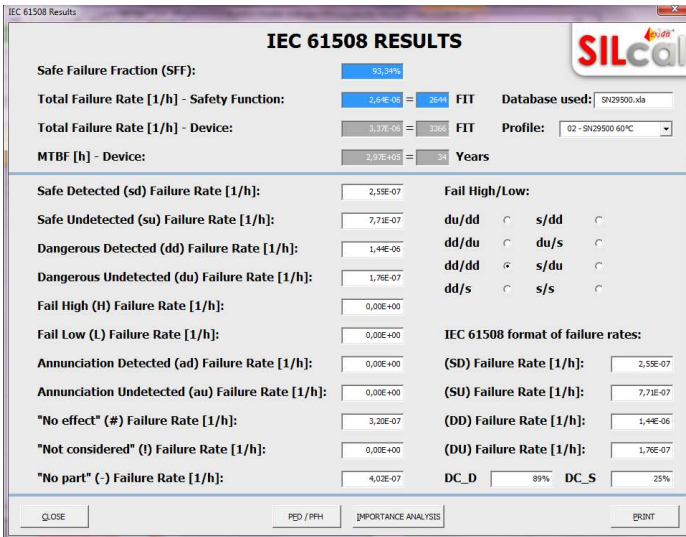
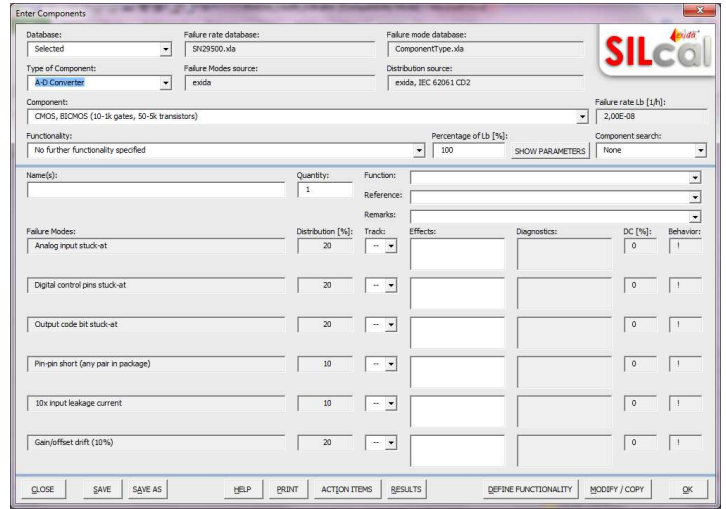


The FMEDA tool helps safety hardware designers to:

1. Carry out a FMEDA according to IEC 61508 or ISO 26262 with:
  - Traceable failure modes and rates;
  - Traceable distribution of the failure rates for the different failure modes;
  - Automatic calculation of the SFF or SPFM and LFM;
2. Verify the achievable Safety Integrity Level (SIL or ASIL) of the Hardware;
3. Provide one FMEDA report for each subsystem.
4. Concentrate on the analysis work by offloading the development team from searching and selecting failure rates and failure modes.

## Key Features

- **Calculation** – Fast and accurate calculation of classified failure rates and other safety metrics.
- **Database** – Extensive built-in database of standard failure modes (RAC, IEC 62061, EN 954-2) and failure rates (SN29500, IEC62380) and corresponding distribution with regard to the failure modes.
- **Failure Effect** – Analysis of electronic and mechanical devices with regard to the failure effect on system level.
- **Allocation** – Allocation to the failure behavior “safe” and “dangerous” of the complete system.
- **Reporting** – FMEDA report to fulfill the requirements of EN/IEC 61508-2 or ISO 26262 for this verification activity.



## Related Services:

**FMEDA** – independent execution and report by *exida* on the FMEDA and the safety metrics calculation to show compliance to EN/IEC 61508-2 and/or ISO 26262 for this verification activity.

**SILver / exSILentia** – independent calculation of PFD or PFH (Probability of dangerous failure per Hour) by *exida* for your specific system architecture.

### Current Version: V8

requires a legal copy of Siemens standard SN 29500

### Platform:

Microsoft Excel™ on Windows™

### Related Products:

*SILver* / *exSILentia*:

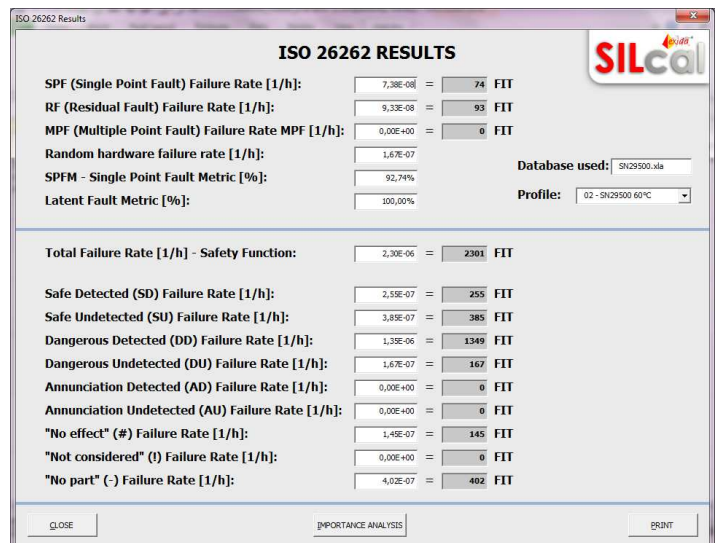
SIL Calculation and Verification Tool

*SafetyCaseDB*:

EN/IEC 61508 Safety Case Knowledge Tool

*SILcap*:

Safety Criticality Analysis / System FMEA



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Version February 2013