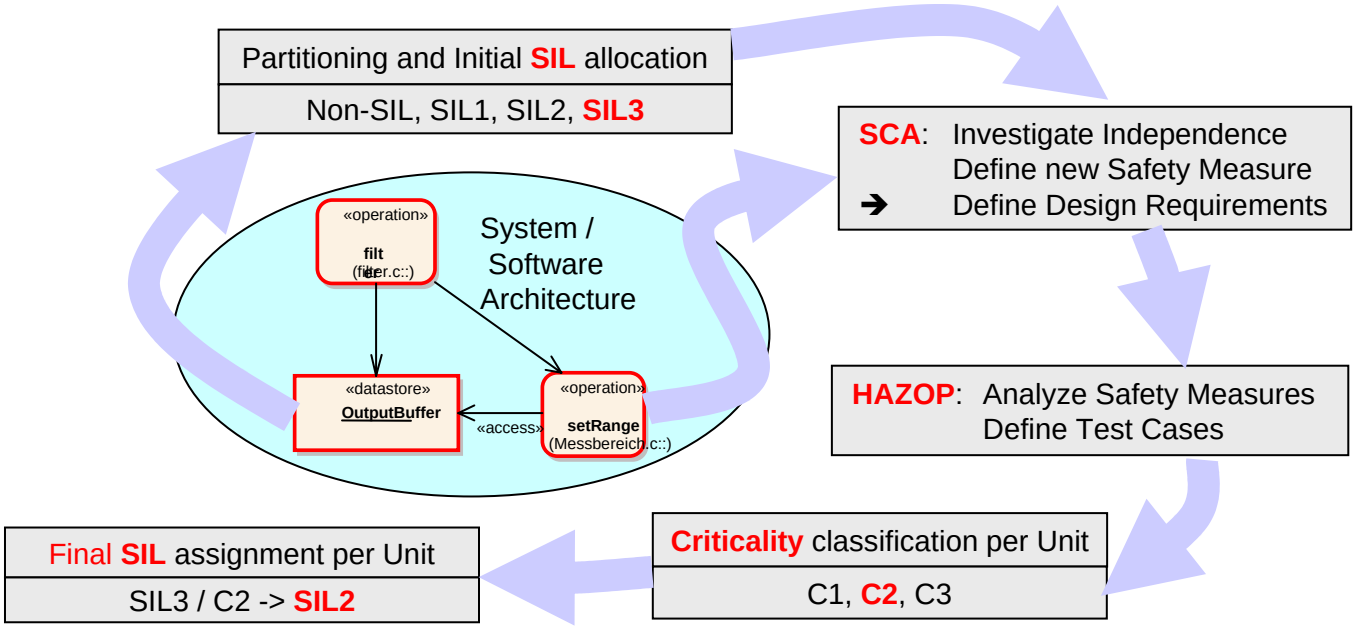
# Safety Criticality Analysis / System FMEA / and Software HAZOP in compliance with EN / IEC 61508

**SILcap is an analysis tool guiding through the Safety Criticality Analysis / System FMEA and the subsequent Software HAZOP of an (programmable) electronic system or sub-system according to the requirements of EN / IEC 61508-2 / -3.**
**Using this verification methods helps focusing your development effort to the most safety critical parts of the device.**

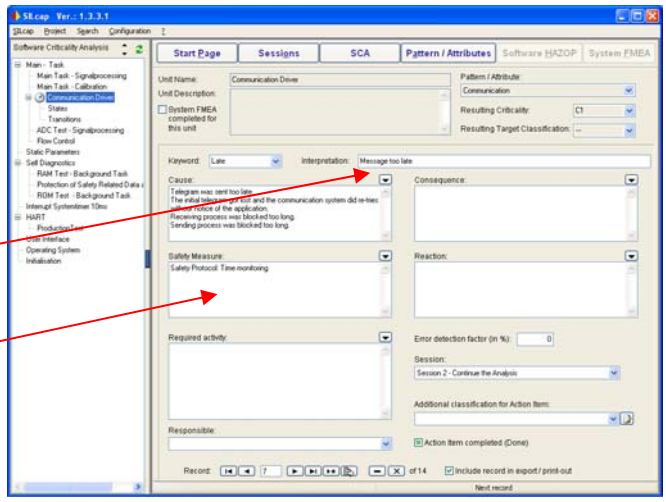


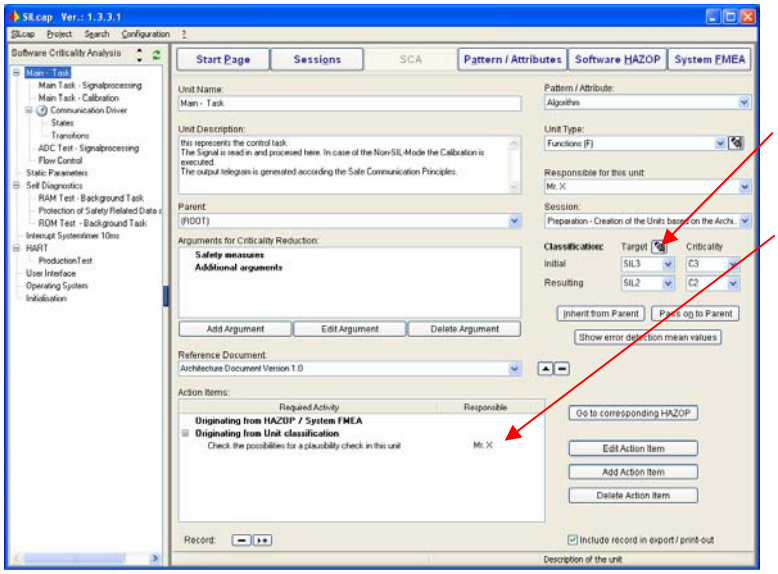

**The SILcap tool** helps safety system- and software designers to:

1. Carry out a Safety Criticality Analysis / System FMEA and Software HAZOP according to IEC 61508 with:
   - Traceable failure modes;
   - Detailed allocation of Safety Measures to system components;
   - Detailed allocation of criticality classes and Safety Integrity Levels to system components.
2. Verify the achievable SIL capability of the system components / software.
3. Find potential weaknesses in the System and in the Software.
4. Provide one SCA / FMEA report for the complete system and software.
5. Concentrate on the analysis work by offloading the development team from searching and selecting failure modes.

## Key Features

- **Keyword Database** – for typical components the HAZOP Keywords are already pre-defined in patterns which can be selected.
- **Database** – With every project the database is growing and speeds up future analyses.
- **Failure Mode** – failure modes of specific components are systematically determined by the use of standardized Keywords.
- **Safety Measures** – To each failure mode the typical safety measures can be allocated and stored.
- **Reporting** – Reports based on templates will be automatically generated by SILcap to document this verification activity.




- **Allocation of the SIL capability** – for each architectural component the related SIL capability is determined and documented.
- **Action items** – for each component under investigation it is possible to define Action Items, which can be traced in the further development steps.
- **HAZOP** – for each architectural component it is possible to analyze the completeness and the effectiveness of the allocated safety measures.

**Current Version:** V1.3

**Platform:**
Windows™ XP, 2000

**Related Products:**
SafetyCaseDB:
EN/IEC 61508 Safety Case Knowledge Tool

FMEDA Tool
Classified failure rate and SFF calculation tool

SILver / exSILentia:
SIL Calculation and Verification Tool

## Related Services:

**Design Reviews** – independent execution and report by *exida* on the System FMEA / Safety Criticality Analysis for customer specific system architecture.

**Moderate HAZOP Meetings** – independent guidance and report of Software HAZOP meetings together with the customers system / software developers.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