

Introduction to Cameo Safety and Reliability Analyzer

The Cameo Safety and Reliability Analyzer Plugin provides risk analysis during the entire product modeling process. For now, the plugin is designed to analyze risks in the modeling of medical devices and is build on the **Medical devices – Application of risk management to medical devices (ISO 14971:2007, Corrected version 2007-10-01)** standard.

Risk analysis adds the following value:

- **Ability to demonstrate** that risks are addressed by safety requirements/risk control measures.
- **Increased agility** between Risk/Hazard Analysis, Design, and FMEA: a frequent exchange of information between risks/hazards and FMEA cross-functional teams, along with shorter development cycles followed by shorter risk analysis and FMEA.
- **Ensured traceability** of risks to requirements, design elements, critical quality attributes (CQA) and other artifacts, traceability from design elements to FMEA, two-way traceability between FMEA and risks/hazard analysis.
- **Performing** safety analysis: automatic Risk Score Number calculations, and risk reduction analysis.
- **Impact Analysis:** validation rules highlight risks with high or medium risk score, risks without risk control measures, failure modes that need attention from hazard analysis cross-functional team and have not been addressed yet, etc.

The Cameo Safety and Reliability Analyzer Plugin can be used together with the [ISO 26262 Functional Safety Plugin](#). The plugin supports the ISO 26262 standard which is derived from IEC 61508. ISO 26262 is intended for electric and/or electronic systems in production vehicles. This includes driver assistance, propulsion, and vehicle dynamics control systems. The goal of ISO 26262 is to ensure safety throughout the lifecycle of automotive systems and equipment.

[Risk Analysis and Assessment Modeling Language \(RAAML\)](#) is an extension of SysML that supports safety and reliability analysis. RAAML is a set of 7 profiles and 6 libraries. These profiles and libraries are divided mainly into 4 separate domains: FMEA, FTA, ISO 26262, and STPA. There are also sets of Core and General profiles and libraries. These sets can be used as they are or you can derive your own set of safety and reliability methodologies and stereotypes based on the domain and usage. For example, the Systems Cybersecurity Designer plugin is based on RAAML, but stereotypes and methodologies are created with the help of available profiles and libraries. The three plugins present in this guide, ISO 26262, Systems Cybersecurity Designer, and Fault Tree Analysis, are based on the RAAML 1.0 standard.

To learn more about the product, see:

- [2024x Version News](#)
- [Introduction to Cameo Safety and Reliability Analyzer](#)
- [Installation, licensing, and system requirements](#)
- [Getting started](#)
- [Reliability analysis using FMEA](#)
- [Safety analysis](#)
- [Additional features](#)
- [Customizing Safety Analysis and FMEA configurations](#)
- [ISO 26262 Functional Safety](#)
- [Fault Tree Analysis](#)
- [Systems Cybersecurity Designer](#)

Docs of other versions

- [Cameo Safety and Reliability Analyzer 2022x](#)
- [Cameo Safety and Reliability Analyzer 2021x Refresh2](#)
- [Cameo Safety and Reliability Analyzer 2021x Refresh1](#)
- [Cameo Safety and Reliability Analyzer 2021x](#)
- [Cameo Safety and Reliability Analyzer 19.0 SP4](#)
- [Cameo Safety and Reliability Analyzer 19.0 SP3](#)
- [Cameo Safety and Reliability Analyzer 19.0 SP2](#)
- [Cameo Safety and Reliability Analyzer 19.0 SP1](#)
- [Cameo Safety and Reliability Analyzer 19.0](#)