



SpecPro in the CERBERO H2020 EU Project

SpecPro is part of the SAGE Verification suite and it is integrated into the CERBERO toolchain to provide requirements verification in the early stage of Cyber-Physical Systems design

It is Open!

SpecPro code is completely open, the repository is available at <https://gitlab.sagelab.it/sage/SpecPro>

Stay Tuned and Contact Us!

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CREDITS: THE TOOL IS A JOINT WORK BETWEEN
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SpecPro

SpecPro is an open-source Java library for supporting analysis and development of formal requirements.

This work has received funding from the EU Commission's H2020 Programme under grant agreement No 732105

Requirements at Work

SpecPro aims at providing solutions to formally evaluate requirements and put them at work to support the system engineer during all the system development life-cycle.

It can handle different input formats, such as Linear Temporal Logic (LTL) formulas or Property Specification Patterns (PSPs) with numerical constraints.

It provides convenient utilities and formatting options to interact with different of-the-shelf tools, such as NuSMV, Aalta and Spot.

One Library, Many Tasks

SpecPro implements state-of-the-art algorithms to perform different tasks



CONSISTENCY

It checks for logical errors inside the specification, considering also the temporal evolution of the system.

MUC EXTRACTION



In case of an inconsistent specification, SpecPro can search for a Minimal Unsatisfiable Core (MUC), namely a minimal set of requirements that can explain the inconsistency.



TESTING

Given a consistent specification, SpecPro can automatically generate a Test Suite for you, execute it on the System Under Test and evaluate the observed behavior

Easy to Use APIs

SpecPro provides a set of Java classes and packages that can be used to easily process a set of requirements. Moreover, it is possible to extend the default interfaces to integrate new algorithms in the existing Framework. SpecPro has been successfully used in other applications, such as ReqV and ReqT.

CLI Client

Some of the SpecPro functionalities can also be easily accessed with a shell by a command line interface (CLI) application. This allows to quickly test its functionality and rapid prototyping new ideas.