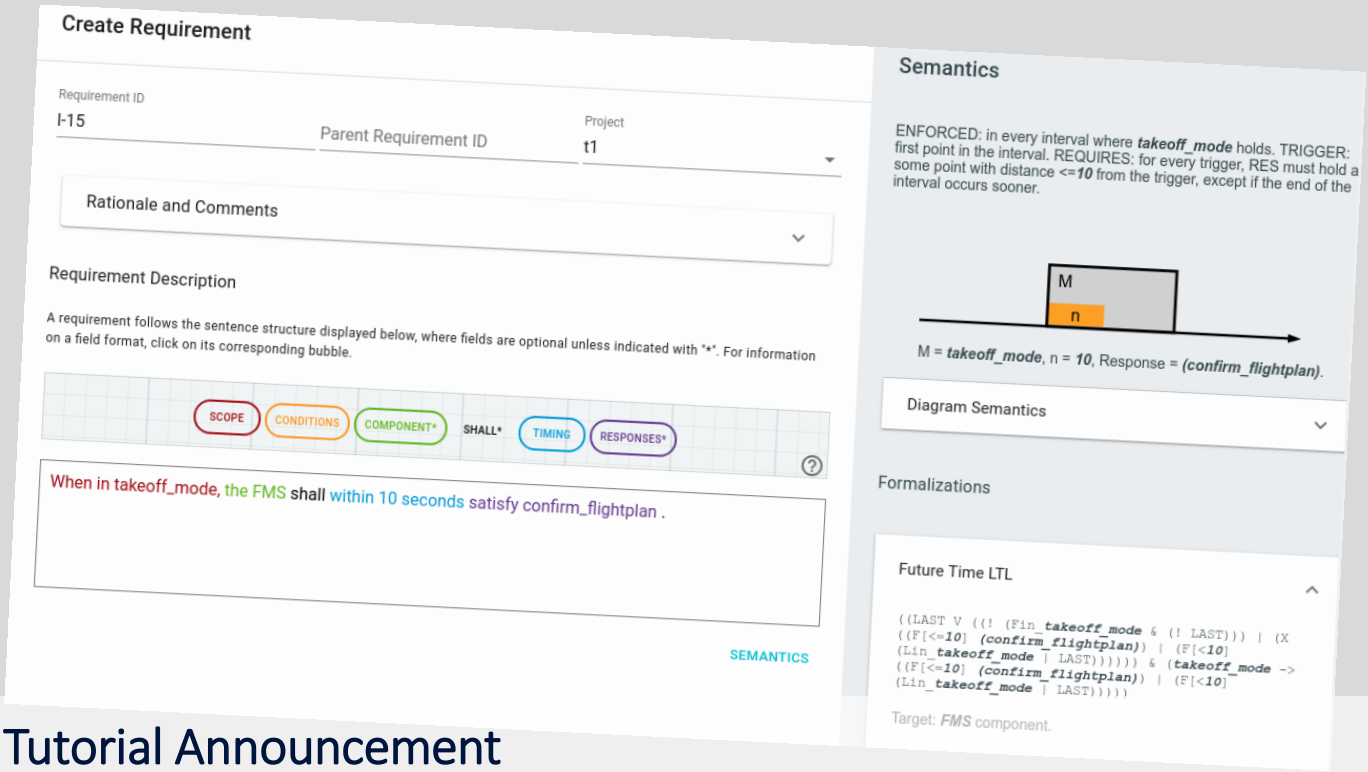

Tutorial Announcement

Requirements in Structured Natural Language with FRET

Abstract: The formulation of requirements in natural language usually leads to highly ambiguous representations, whereas formal notations (e.g., temporal logics, state machines) are often unintuitive. In this hands-on tutorial, we present FRET, a novel open-source tool developed by NASA. FRET uses structured natural language, which can be automatically translated to temporal logic formulas that can be processed by a variety of analysis tools. It thereby ensures that the formulas always conform to the underlying language semantics.

This tutorial will present a short introduction into past- and future-time metric logic and then will focus on FRETISH, the tool's structured natural input language. With relevant examples from the aerospace domain, we will demonstrate the tool's capabilities, user support, as well as connection to powerful analysis tools.

During the tutorial, the participant will install and run FRET on her/his own computer and hands-on examples and a homework assignment will enable the participant to master the FRET tool.

Contact & Registration: julian.rhein@tum.de

When:

Jan 23, 15:00 – 17:00 and
Jan 24, 14:00 – 16:00

Where:

MW 3618 (FSD Seminar Room)

Who:

Dr. Johann Schumann (SGT/NASA) and Julian Rhein, M.Sc. (TUM-FSD)

What:

- Learn how to use FRET
- Learn how to write and debug requirements
- Learn about interfaces to analysis tools
- **BYOR (Bring your own requirements)**

FRET Features:

- Structured natural language
- Semantics conformance checks
- Intuitive user Interface
- Visualization and interactive help
- Interfaces to analysis tools