

The objectives of the RAMS Frame Contract are:

- More extensive validation of Safety and Dependability techniques for Software.
- Provide valuable results to improve the quality of the Software thus promoting the application of Dependability and Safety methods and techniques.

This is performed through a number of "call-off orders" which each validate one or more safety and dependability techniques. At this Final Presentation there are two activities to be presented:

1. The execution of a SW FMECA on the SCOS2000 system together with a code inspection on selected modules. The SFMECA is a bottom-up approach starting from the possible failure modes of low-level components and identifying possible consequences at upper level. This is done to support the assessment of the software architecture as regards the effects of potential software failures.
2. The definition and execution of robustness and stress testing on the RTEMS OTS (off the shelf) kernel. The purpose with the Robustness testing is to define test cases that are on or outside specification boundaries and monitor the result when executing. The objective with the stress testing is to create test cases in such way that an exceptional high workload is achieved.

For both activities the presentation will describe how the Safety and Dependability techniques have been applied and the findings and suggestions on how the software can be improved. The presentation will also discuss ideas on how the Safety and Dependability techniques can be improved.