

# Software verification for MATLAB® Simulink® projects with RVS

RVS helps you supplement the evidence you need to verify critical software developed using MATLAB® Simulink® models. RVS supports the verification of software developed using a MATLAB® Simulink® workflow to achieve DO-178C objectives, and enables on-target verification in PIL and HIL testing environments as well as on-host and on-target verification for additional code introduced into a project.

## On-target verification (PIL and HIL)

To support on-target verification in PIL and HIL environments, model-based code must be able to run on the target platform or a representative test environment. Common ways of achieving this include through a Simulink target integration (available from Mathworks), or using the Speedgoat™ hardware.

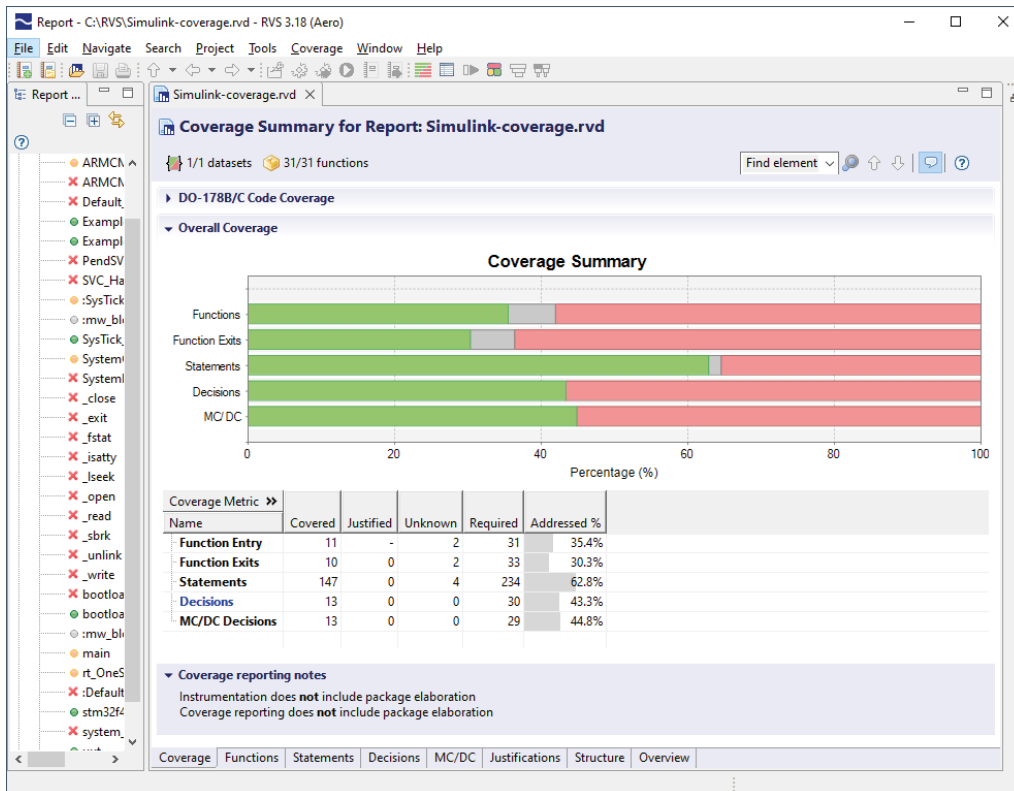
With the software running on a suitable platform, RVS tools can be integrated with the test environment to support the following during on-target testing:

- Rapi**Cover** can measure the structural coverage achieved through testing
- Rapi**Time** can support the calculation of software worst-case execution time (WCET)

## Verification of additional code

Rapi**Cover** can provide structural coverage metrics for model-based and non-model-based code for on-host testing through a standard integration.

Additional code can be verified on-target in PIL and HIL environments assuming that the software runs on-target (see *On-target verification*).



Structural coverage results up to MC/DC collected by Rapi**Cover** by running Simulink model-based code on-target

