RAPITA
SYSTEMS
A DANLAW COMPANY

Safety through quality

PRODUCT BRIEF

Training courses

Product brief: Training courses

Introduction

We provide training courses that teach the fundamentals of efficient verification of critical software and how to use Rapita solutions to verify software efficiently.

Standard courses

We provide standard training courses, which cover introductory and intermediate concepts. Our typical training courses are 2 days long and can be assembled from the list of modules below to best suit your needs.

Custom courses

We provide custom Advanced training courses to cover the specific topics that best meet your training needs.

Delivery

We are flexible and can accommodate training in a variety of formats in order to best meet your needs, including:

- *Online training*, where we provide training through an online platform.

- *On-site training*, where we provide training at your site.

- *Local workshop training*, where we provide training at a public venue.

Where training courses include a practical component, we provide tool licenses and project materials for trainees to perform practical aspects of the training under the guidance of our trainers.

We provide electronic copies of our training materials, which trainees can keep.

We provide certificates to trainees that complete our training courses on request.

R**VS** tool training courses

Our R**VS** tool training courses teach everything needed to understand how to use R**VS** tools to verify critical software. We also teach fundamental concepts of verification.

Topics

We provide training on various elements of R**VS** usage and verification in general. For more information, see each training course.

Practical training

Our Advanced R**VS** tool training modules include practical components so trainees can put what they learn into practice. We provide licenses and materials to support practical components of the training.

Dynamic analysis and zero-footprint training

We provide both Dynamic analysis (e.g. Rapi**Cover**) and Zero-footprint (e.g. Rapi**Cover**^{Zero}) versions of our training modules depending on your needs.

Trainers

Our R**VS** tool training courses are delivered by specialist Rapita Field Application Engineers, who provide support services related to using R**VS** daily.

Delivery

- Online, On-site (preferred) or Local workshop

Duration

- Introductory and Intermediate training – 2 day course, 1 day per module
- Advanced training – 2 day course customized to best meet your needs

Functional and requirements-based testing

Introductory training module (1 day)

- Introduction to Rapi**Test**
- Introduction to functional testing concepts
- Writing spreadsheet tests
- How to run an integration
- Understanding and analyzing results
- Exporting results

Intermediate training module (1 day)

- Intermediate functional testing concepts (stubbing, fault injection)
- Writing tests in the Rapi**Test** Scripting Language (RTS)
- Target integration
- Interfacing with other R**VS** plugins (Rapi**Cover** and Rapi**Time**)
- Customizing the Rapi**Test** workflow
- Integrating Rapi**Test** with requirements management software
- Continuous integration and Rapi**Test**

Advanced training (2 days)

Custom training modules including practical components. A wide range of advanced Rapi**Test** concepts can be covered, including:

- Advanced functional testing concepts (stub sequences, multi-threaded testing)
- Importing test vectors from third-party tools
- Batching and parallelizing testing
- Interfacing with test bench hardware
- Advanced integration concepts
- Optimizing data collection
- Scripting the analysis
- Preparation for qualification

Structural coverage analysis

Introductory training module (1 day)

- Introduction to Rapi**Cover**
- How to run an integration
- Understanding and analyzing results
- Exporting results

Intermediate training module (1 day)

- Target integration
- Selecting instrumentation
- Creating justifications
- Merging coverage from multiple runs and/or builds
- Customizing the Rapi**Cover** workflow
- Integrating Rapi**Cover** with requirements management software
- Continuous integration and Rapi**Cover**

Advanced training (2 days)

Custom training modules including practical components. A wide range of advanced Rapi**Cover** concepts can be covered, including:

- Managing resource limitations
- Advanced integration concepts
- Optimizing data collection
- Scripting the analysis
- Preparation for qualification
- Zero-footprint structural coverage analysis

Execution time analysis and scheduling visualization

Introductory training module (1 day)

- Introduction to Rapi**Time** and Rapi**Task**
- Principles of execution time analysis
- How to run an integration
- Understanding and analyzing results
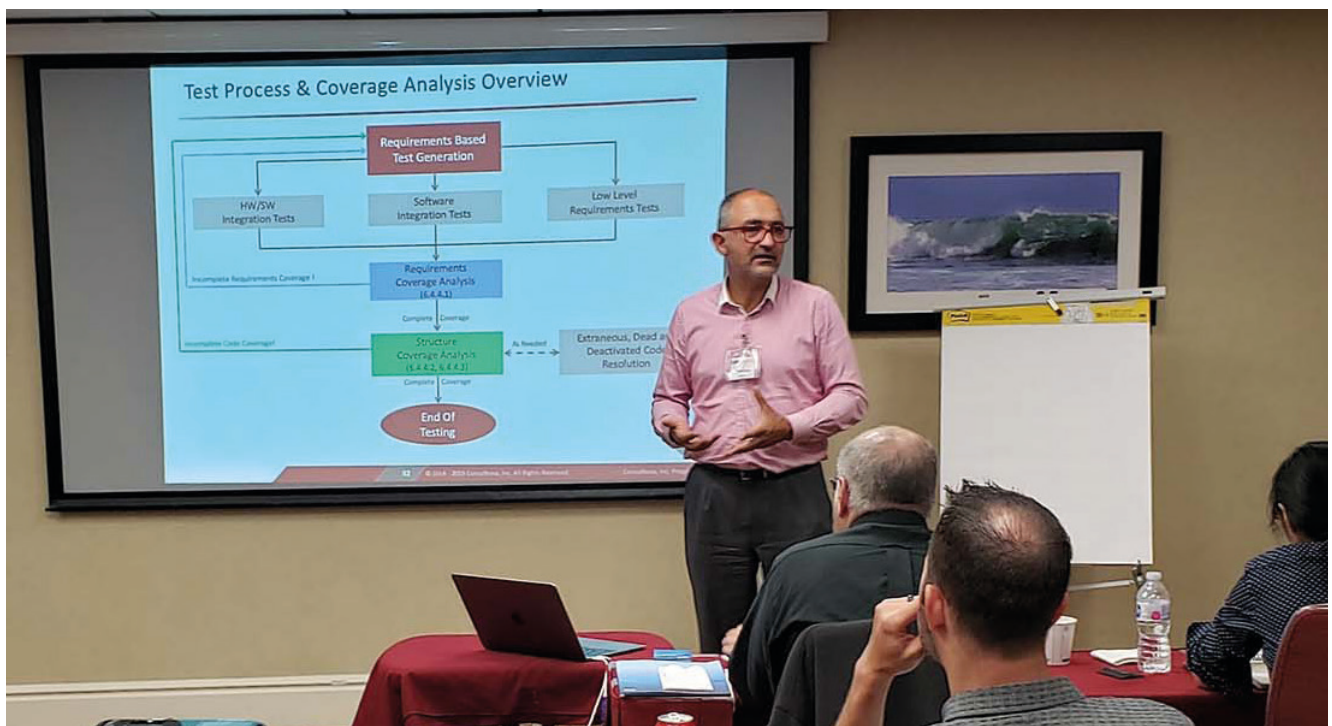- Exporting results

Intermediate training module (1 day)

- Target integration
- Selecting instrumentation
- Customizing the R**VS** workflow
- Refining Rapi**Time** analysis
- Continuous integration and Rapi**Time**

Advanced training (2 days)

Custom training modules including practical components. A wide range of advanced Rapi**Time** and Rapi**Task** concepts can be covered, including:

- Managing resource limitations
- Advanced integration concepts
- Optimizing data collection
- Scripting the analysis
- Optimizing code for worst-case behavior
- Handling indirect calls
- Calibrating execution time impact from instrumentation
- Preparing for qualification
- Zero-footprint execution time analysis

RAPITA Systems
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About Rapita

Rapita Systems provides on-target software verification tools and services globally to the embedded aerospace and automotive electronics industries.

Our solutions help to increase software quality, deliver evidence to meet safety and certification objectives and reduce costs.

Find out more

A range of free high-quality materials are available at:
rapitasystems.com/downloads

SUPPORTING CUSTOMERS WITH:

Tools	Engineering Services	Multicore verification
Rapita **Verification Suite**:	V&V Services	**MACH**[178]
Rapi**Test**	Integration Services	Multicore Timing Solution
Rapi**Cover**	Qualification	
Rapi**Time**	SW/HW Engineering	
Rapi**Task**	Compiler Verification	

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