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FAQ

General

Introductory Questions – General

Will there be any connection from UML design to TTCN-3 test specification?

An OMG work group has been formed which will propose a UML testing profile that uses TTCN-3 as back-end. If approved, this testing profile will be supported by IBM Rational.

Detailed Questions – General

Can a workspace file created in Rational Systems Tester be opened in Microsoft Visual Studio, or the other way around?

No, this is not supported. It is possible to edit and compile C/C++ files within Rational Systems Tester, for example if you are required to make small modifications to source files. It is not intended to give a C/C++ development environment. IBM Rational recommends that TTCN-3 development is done within Rational Systems Tester and C/C++ development is done in another tool.

I want to convert my TTCN-3 files to HTML or XML, is this possible?

There is a command-line tool called `t3doc` that you can use for converting TTCN-3 files to XML. For more information, see “Converting TTCN-3 to XML” on page 80 in Chapter 7, *Editing Abstract Test Suites*.

Another possibility is to use the **Report on TTCN-3 objects** button to create an HTML report including all TTCN-3 objects in the active project. It is also possible to create customized reports in HTML by using the Script Wizard. For more information, see “Project Reports” on page 59 in Chapter 6, *Working with Projects*.

What is the best method for working with Rational Systems Tester?

Please refer to *Rational Systems Tester Tutorial*. If you require training courses, all available courses are described on the IBM Rational web site: <http://www.ibm.com/software/rational/education/>.

Project Management

Introductory Questions – Project Management

Do I have to develop a control mechanism to execute my tests when I have already bought the test development environment?

By using Rational Systems Tester, you can have your tests visualized and executed in the same environment. For more information, see “Execution Settings” on page 138 in Chapter 11, *User Interface Execution*.

When I work in a team environment, how do I manage dependencies between test artefacts?

Rational Systems Tester provides an environment for teams to work with one or many projects within a collective workspace, and control this with an underlying configuration management system such as CM Synergy. These projects tie together all files required for test, rather than just the test itself. For more information, see “Setting Up Your Work Environment” on page 51 in Chapter 6, *Working with Projects* and “Source Control” on page 54 in Chapter 6, *Working with Projects*.

How can I maintain a balance between test readability and test automation?

Rational Systems Tester combines the ability to develop abstract tests in TTCN-3 – as defined in ETSI ES 201 873-1 V2.2.1 – with an environment for compiling your tests into complete executables. For more information, see “Telelogic Tau/Tester Overview” on page 1.

Detailed Questions – Project Management

In the Options dialog box, I have set the option Connect to the Source Control System at Startup. This seems to have not effect, what is wrong?

Naturally, it is only possible to connect to a source control system if you have one installed.

On Windows, the source control system that will be used is specified in the system registry key `SourceCodeControlProvider`. The value of this key should be set automatically during installation of a source control system. You should not edit the value manually. If you are using IBM Rational CM Synergy, make sure you have installed the CM Synergy pcint171 integration, otherwise this system key will not be updated. For more information, see “Source Control Integration Limitations” on page 549.

Test Suite Development

Introductory Questions – Test Suite Development

Do I have to wait until execution to find syntactic errors in my tests?

Tests can be analyzed at the time they are created. For more information, see “Analysis Settings” on page 79 in Chapter 7, *Editing Abstract Test Suites*.

Detailed Questions – Test Suite Development

Can I use another text editor in Rational Systems Tester, for example Emacs?

Although it is not possible to integrate Emacs directly inside of Rational Systems Tester, it is possible to link to external tools and use them to perform operations within the project. For more information, see “Customize the Tools menu” on page 12 in Chapter 1, *Working with Windows and Menus*.

Where can I find more information about TTCN-3?

You may download the TTCN-3 standard, ETSI ES 201 873-1 V2.2.1 from the download area of the ETSI web site: <http://www.ttcn-3.org/StandardSuite.htm>. Anyone may download ETSI publications, free of charge, and non-ETSI members can request a user name and password to access standards.

See also “About TTCN-3” on page 19 in Chapter 2, *Supported Languages*.

Do I need to have a C compiler on my computer to be able to compile an abstract test suite to an executable test suite?

The Compiler included in Rational Systems Tester is used for generating C code, based on abstract test suites. You will need these C files, the integration files and a makefile, as well as a third-party C compiler to be able to build an ETS. For more information, see “Creating an ETS” on page 107, and the *Technical Integration Documentation*.

Can I use signatures in message based communication?

No, it is not possible in message based communication. Signatures are only used in procedure based communication.

Can I set “error” as verdict in my test case?

No, you cannot. The error verdict value is used with runtime errors when running the tests.

I would like to say that a test case is run twice after which another test case is run. Should I define that in TRI?

No, you do not. Use the test module control part for controlling test case execution.

Is it possible to re-use type definitions included in one module in another module?

You can import a module in full to another module, or import only those definitions that you would like to use.

How can I define values and matching rules for messages and signatures in TTCN-3?

You do this by using templates.

Integration Development

Introductory Questions – Integration Development

Why has TRI been designed to allow for ATS-generated code to be interchanged?

In order not to get a user stuck with the tool he originally selected. Also, TRI integrations could this way be implemented and sold off-the-shelf in the same manner as test specifications in order to reduce time-to-market. For more information about TRI, see the *Technical Integration Documentation*.

Is proprietary encoding supported in TTCN-3 and Rational Systems Tester?

Yes, you can link the generated code with your encoder/decoder implementation. The generated code would then call your proprietary encoder/decoder as specified by the encoding attributes. For more information, see the *Technical Integration Documentation*.

Detailed Questions – Integration Development

What will the value representation of the signals be if no encoding has been specified?

Rational Systems Tester specific. TRI does not have a value representation. It is up to the user/vendor to define what should be used. For more information, see “Predefined Configuration Keys” on page 141 in Chapter 11, *Configuration Keys and Files*.

Test Execution

Introductory Questions – Test Execution

When performing test execution, do you lose sight of what is really happening?

The test execution will be logged in the output window, and possibly saved to a text file and MSC files. From the text log, you can navigate to the source in the abstract test suite. For more information, see “Execute a Test Suite” on page 140 in Chapter 11, *User Interface Execution*, “Built-In Log” on page 149, and “MSC File Log” on page 150.

Do I have to view the execution results in a format specified by Rational Systems Tester?

With both a selection of logging mechanisms and a complete open interface to develop new representations, Rational Systems Tester provides the means for you to log the information that is relevant to your particular project. For more information, see *Technical Integration Documentation*.

When performing test execution, there is no point in finding an error if I am unable to recreate the error in future. For this I need to know all of the components and their versions that were involved in the original test. Is this possible?

Rational Systems Tester provides full support for the Source Code Configuration Interface (SCCI). This interface enables complete change control support from all leading vendors, including Rational CM Synergy, Rational ClearCase and CVS.

For more information, see “Source Control” on page 54 in Chapter 6, *Working with Projects*.

I find it expensive to integrate my existing project environments with new tools whilst also having to develop many different integrations to the same product line when in fact I would prefer to do the work once. How can this be solved?

Rational Systems Tester provides a complete open interface to integrate legacy applications both into the development environment and as a control mechanism for the executable test. IBM Rational's goal is to provide fully integrated best of breed products whilst maintaining an open architecture to other applications.

TTCN-2 and TTCN-3

Introductory Questions – TTCN-2 and TTCN-3

What is the advantage of TTCN-3 as opposed to conventional programming languages?

TTCN-3 is designed for test and nothing else. TTCN-3 is a test notation designed to provide both maintainable and portable tests. For more information, see “About TTCN-3” on page 19 in Chapter 2, *Supported Languages*.

Detailed Questions – TTCN-2 and TTCN-3

Can I open or import a TTCN-2 file in Rational Systems Tester?

No, you cannot open or import a TTCN-2 file directly in Rational Systems Tester. You may use `t2tot3` converter provided with Rational Systems Tester to translate your TTCN-2 test suites into TTCN-3 language.

How do I migrate from TTCN-2 to TTCN-3?

You have to either manually or using `t2tot3` converter provided with Rational Systems Tester convert your TTCN-2 test suites into TTCN-3 ones. See previous question.

Can I re-use my target adaptations for TTCN-2 tests?

IBM Rational is committed to providing migration tools in a future version of Rational Systems Tester. IBM Rational will provide a mechanism to migrate the GCI value interface from IBM Rational TTCN Suite into Rational Systems Tester. It is not recommended that you use GCI values if you have no existing interface to migrate.

I used to co-simulate my test suites against SDL systems. Is this possible with Rational Systems Tester?

It is of course possible to test an SDL system with Rational Systems Tester, but a communication layer will need to be provided in the TRI interface. Discrete time simulation is not yet possible.

I am used to the table view of TTCN (TTCN-GR). Is it possible to edit, view and print TTCN-3 that way?

No, Rational Systems Tester does not yet support this.

What can TTCN-3 do that was not possible with TTCN-2?

TTCN-3 has been improved to fit better into the areas where TTCN-2 failed to perform. These new areas include better support for testing outside the traditional black box testing, and support for real time testing and testing of dynamically configurable platforms. TTCN-3 also opens the possibility to create different views for test data and the test cases specified by the user.

Procedure-based communication and dynamic test system configuration opens up new areas of applications, for example service testing (including supplementary services), module testing, testing of CORBA based platforms, and APIs etc.

Are there any limitations in TTCN-3 compared to TTCN-2?

TTCN-3 has been designed to be a superset of the functionality provided by TTCN-2. Some telecommunication specific notation has been removed, for example PDU and ASP, but a clear mapping onto the new notation has been defined, for example the struct type.

I cannot find a way to define a PDU or an ASP in TTCN-3 like it was in TTCN-2. What should I do?

TTCN-3 does not contain “hard-coded” PDU/ASP concepts. You can define a record type, name it as you want, and use fields as in your PDU/ASP definitions. See also the previous question.

How can I define constraints in TTCN-3?

Message templates are the same as constraints in TTCN-2. You can also use templates for defining procedure calls.

About the FAQ

The FAQ Does Not Answer My Questions

- Try to search for one or more terms, or use the index or the table of contents to find what you are looking for.
- The `\Locale\En` directory in the Rational Systems Tester installation directory contains more user documentation.
- Other information sources:
 - <http://www.ibm.com/software/rational/support/telelogic/>
 - <http://www.ibm.com/software/awdtools/ttester/support/>

