

## Tessy V2.6 Features

***Preliminary!***

### ***Enhanced Coverage Visualization and Reporting***

In addition to the existing coverage reports, Tessy will provide graphical visualization and reporting for coverage measures. This will take the form of a flowchart.

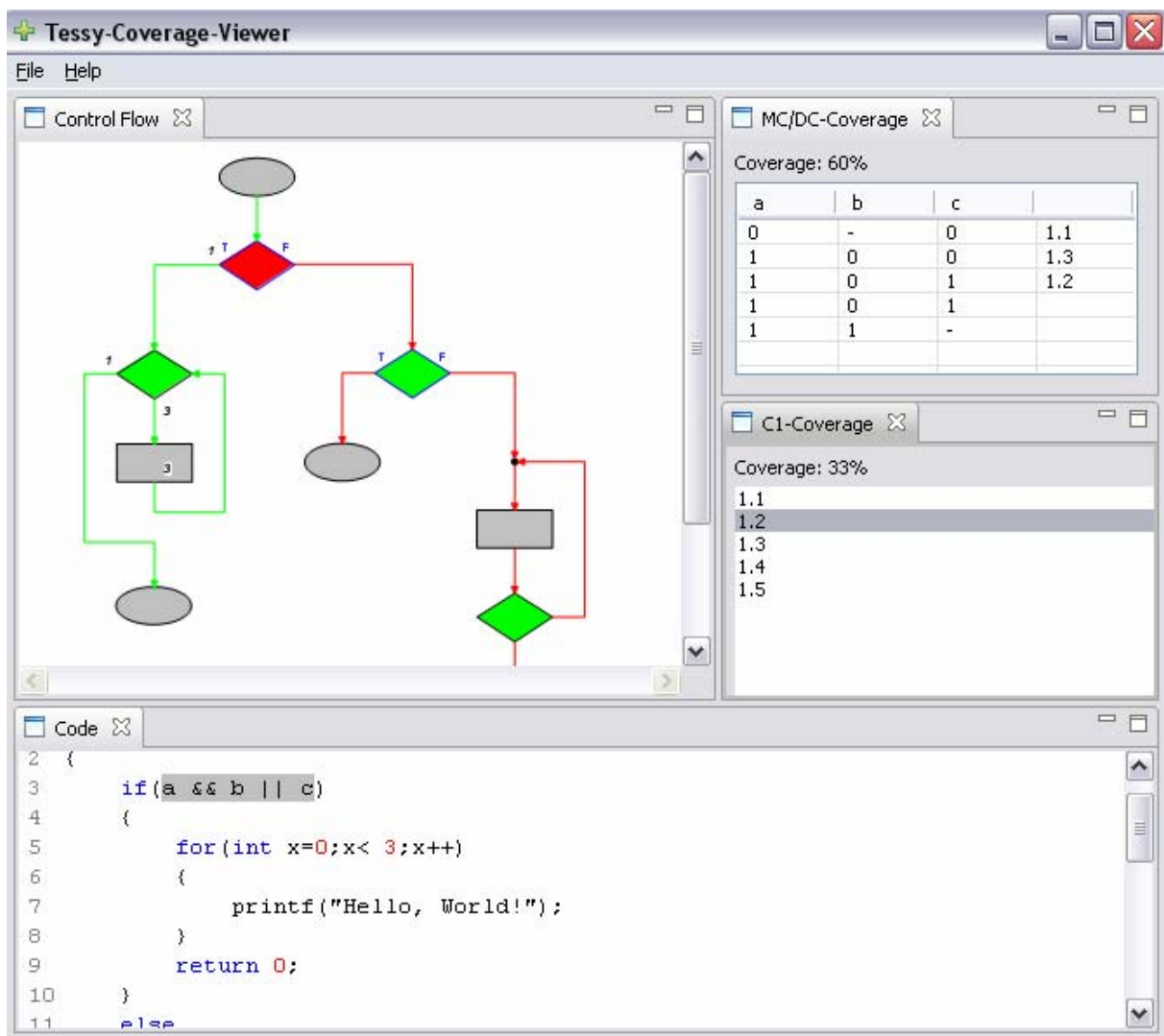


Fig: Coverage Viewer

## Automatic Test Data Generation

A context menu in the Test Data Editor (TDE) will allow automatic generation of test data. The test data manifests in the test steps of a single test case. The test steps are generated by combination of values for the variables in the interface of the test object. The user may simply specify to use minimum and maximum values; alternatively, the user may specify a list of values to be used for the combinations. Tessy calculates the number of test steps resulting from the current settings. This allows the user to avoid inflation of test steps by adjusting the settings. Eventually, the user may append the generated test steps to existing test steps of this test case or the user may create a test case consisting purely of generated test data.

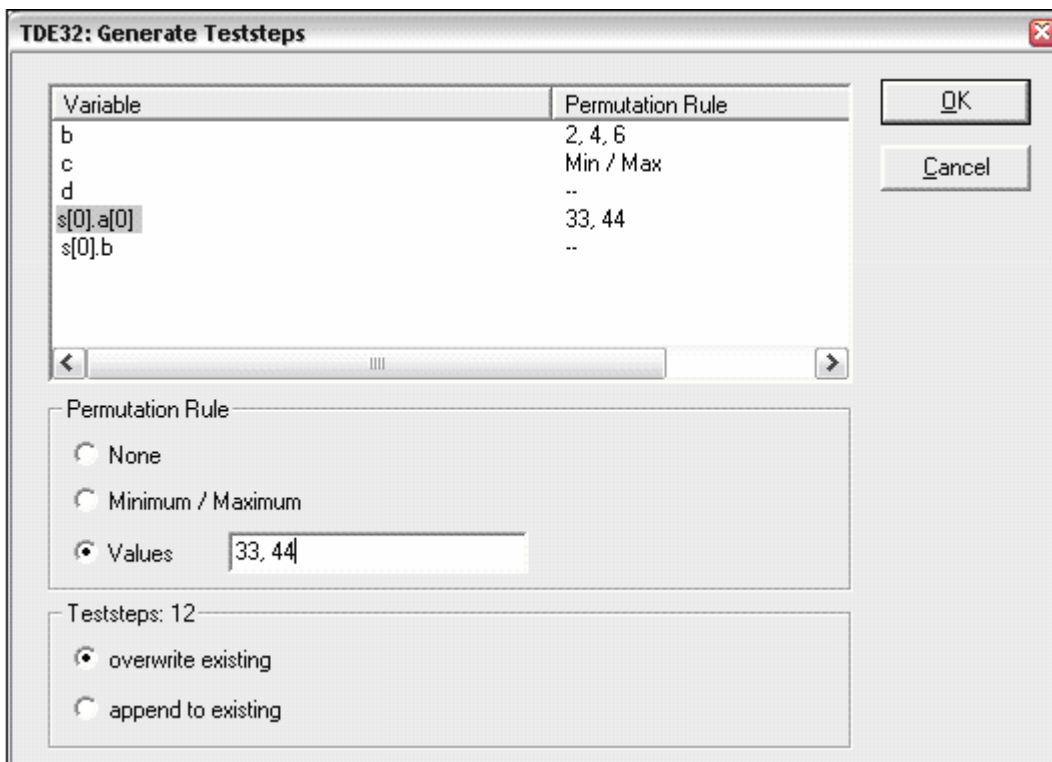


Fig: Test step generation

## Graphical View of Variable Values

A new test data editor will allow graphically visualizing test data for interface variables as signal data row. This will be available either for data rows within one test step (e.g. for arrays) as well as for data rows of a variable over all test steps.

Graphical result plots of interface variables will be available without additional software (e.g. Matlab).

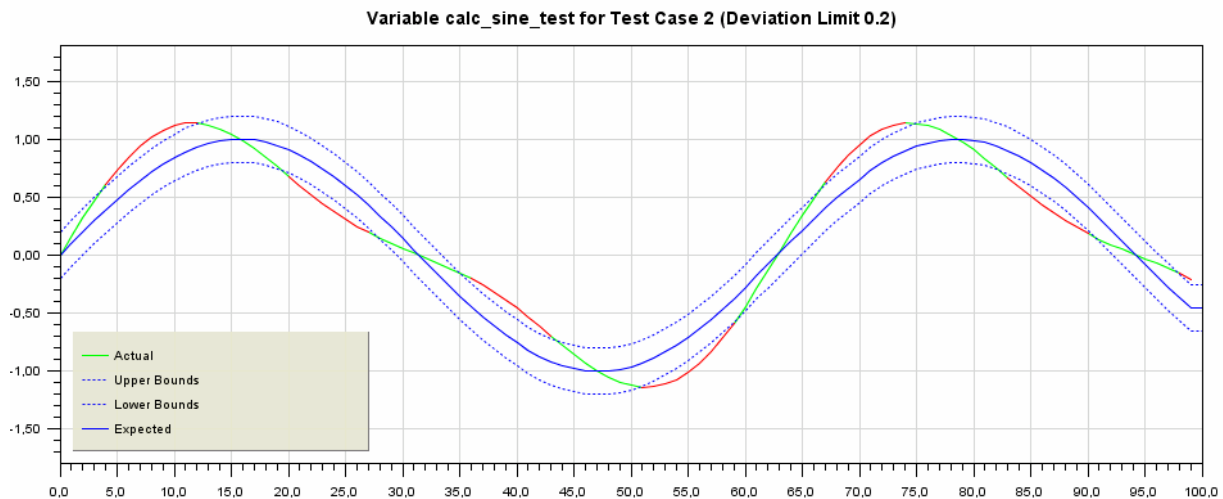


Fig: Graphical test result evaluation

## C++ Support

Tessy will allow testing of C++ modules for certain compilers supporting the C++ language. Test data entry and result evaluation will be accomplished in the Usercode of Tessy.

## Using Symbolic Constants as Test Data

Tessy will be able to use #defines of constant values as symbolic test data. E.g., if the user's source code contains

```
#define RED      1
#define GREEN    2
#define BLUE     3
```

up to now, "2" has to be entered in Tessy's Test Data Editor to denote "GREEN". In Tessy V2.6, "GREEN" can be entered directly as test data. This will ease the definition of the test cases and help to understand their semantics. Furthermore, if the definition of "GREEN" should change during development, e.g. to

```
#define GREEN    20
```

the value for GREEN in the test data will change automatically, too.

Definitions are also available in the CTE.

## ***Bit Check***

Individual bits of a variable can be checked during the evaluation for a test case result. It will be possible to mask-out bits of an expected value in the Test Data Editor. For this, a new format for expected values will be introduced, e.g.

```
0b000xxxx1111000
```

where “0b” is the format specifier, “0” denotes an unset bit, “1” denotes a set bit, and “x” denotes a don’t care bit in the expected result.

## ***Value for the Return Value of Functions in the CTE***

If a function is not void, but has a return value, it will be possible to associate a classification with the return value and to specify a value for the expected result in the underlying classes. This value will be automatically used in the test cases exported to Tessy. This is similar to what is already available for normal output variables.

## ***Interface Database Optimization***

The improved Interface Database (IDB) will allow restoring the original passing directions after any changes to the interface settings. Also new interface analysis findings of Tessy due to source code changes will be reflected within the original passing directions settings after re-use operations.

Variables and functions used or referenced within initializing statements will be available within the IDB.

The passing direction of module global variables, which are only used by module local functions, are set to “Irrelevant” if the local function gets stubbed.

Optimization of the IDB database will provide faster response times for larger interfaces.

## ***Tool Qualification Package***

A tool qualification package for use within certification activities according to standards like DO-178B, IEC 61508 or Automotive SPICE will be available. Customer specific adaptations or consulting services will also be offered.

## ***Improved Tessy Environment Editor***

The Tessy Environment Editor will be optimized allowing simplified access to the most frequently used settings.

## ***New Installer***

A new install tool shall avoid problems during installing.

## ***Support For Windows Vista***

Tessy will be able to run under Windows Vista.