05 August 2021

verifysoft
TECHNOLOGY

Change Documentation for

Testwell CTC++

Version 9.1.2

Change

Dependencies during test execution

During execution of instrumented programs, the standard Testwell CTC++ runtime libraries will not perform a license check any longer. This harmonizes the behavior between standard and HOTA libraries and leads to the following advantages:

- If the test is executed on a different computer, no **ctc.ini** is needed there.
- On Linux, the misleading warning `no .eh_frame_hdr table will be created` is no longer issued during linking.
- On Windows, certain instrumented functions called by the entry function when loading a DLL (mainly C++ constructors of objects with static lifetime) could cause a hanging process. This is fixed by this change.

Bug Fixes

File exclusion in ctcpost

When the header extraction was switched off with option `-nhe`, the file exclusion with option `-nf` did not work in **ctcpost**.

C++ functions with noexcept and override

A function defined with a combination of `noexcept` and `override` as specifiers was not instrumented.

Recognition of less-than signs in templates

Less-than signs inside template `<…>` brackets were not always recognized correctly. This led to not instrumented source code.

Missing file variants in HTML report

Source files that are compiled both directly and included in other files (in tests for example) are reported twice in Testwell CTC++: In the text report, they appear as "Monitored Source File" and as "Monitored Header File".
In the HTML report, one of these variants was missing. Now, both variants occur (with separated counter/ coverage), the second one from the text report is displayed like `foo.cpp (other)`.

Line highlighting in HTML report after multi-line comments

Source code comments starting on a function end line and reaching over several lines led to missing highlighting for the following code.

Line assignment for probes spread over multiple lines

When a language element like `if`, `for`, `do`, `while` is spread over more than one line, Testwell CTC++ generally assigns the corresponding probe to the last line.
However, if the character terminating the decision itself was on a new line (closing bracket or semicolon in case of `for`), the line before was assigned. That led to line highlighting issues in the HTML report.

Missing code lines in HTML report

After a combination of strings and line continuation characters inside and outside the string like

```
printf("x is \
    %d\n",\
    2);
```

single source code lines were not shown in the HTML report.

License information without port number specified

The license information given with `ctc -V` was not correct if the port number of the license server was not set in **ctc.ini** or in the environment variables TESTWELLD_LICENSE_FILE or LM_LICENSE_FILE. The actual license check out was not affected by this issue.

Error messages of ctclaunch

When the build tool called with **ctclaunch** was not available, the error message was misleading. Additionally, if the build tool finishes with an exit code greater than zero, this message is now clearly distinguished from **ctclaunch** error codes.

Error message dmp2txt

When **dmp2txt** was used with a wrong or corrupted **MON.aux** file, the error message was misleading.