VerOCode - Non-Intrusive Object level, Coverage Analysis

Overview

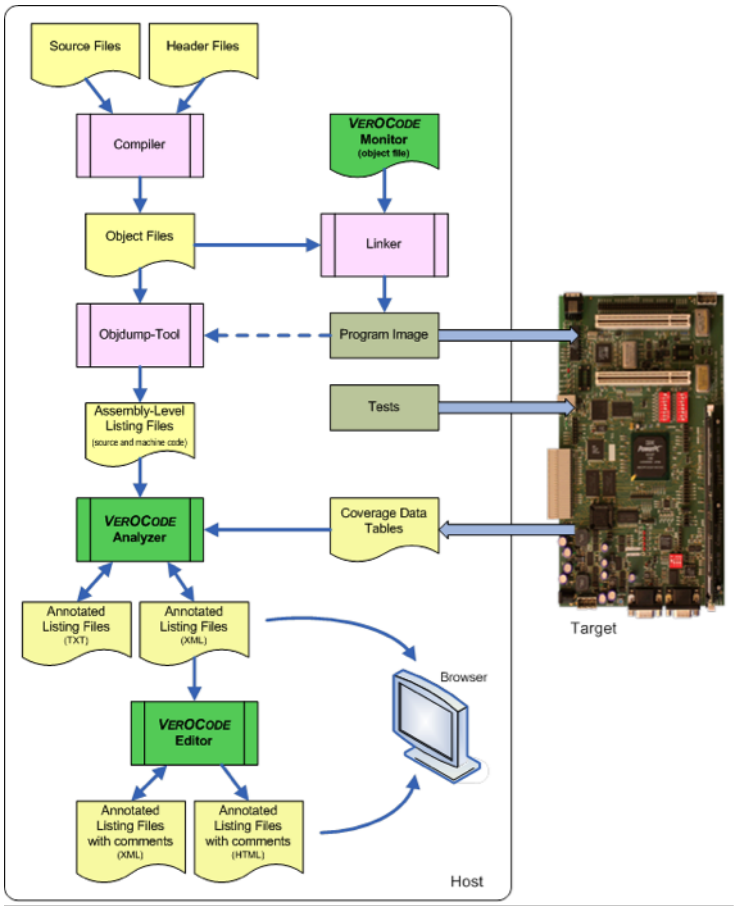
Verocel offers multiple levels of code coverage and analysis reporting capabilities to meet any Safety or Security standard requirements. VerOCode provides a non-intrusive object level coverage analysis. VeroSource-A provides a source level Modified Condition/Decision Coverage (MCDC) coverage capability. And VeroSource provides a general Statement and Decision coverage capability.

Coverage analysis is required by DO-178B/C, for example, to make sure all aspects of a system are exercised. In this case the level of Coverage Analysis detail required varies with the assurance level associated with the software under test.

VerOCode is a unique capability that provides a coverage analysis and mapping between the object code executed on the target and the associated source language statements. It directly **satisfies the DO-178B/C Level A** object to source code traceability objectives for code coverage.

VerOCode can use the same requirements-based tests that were used in functional testing to automate the capture and analysis of structural coverage testing without instrumenting the code under test. This is part of the process used at Verocel. It then records and displays the instructions executed in a program under test, and for conditional instructions, records and displays the state of the condition code at each execution of the instruction.

Structural coverage is obtained at the machine code level, with results reported through an annotated program listing containing the source and machine code level expansion.



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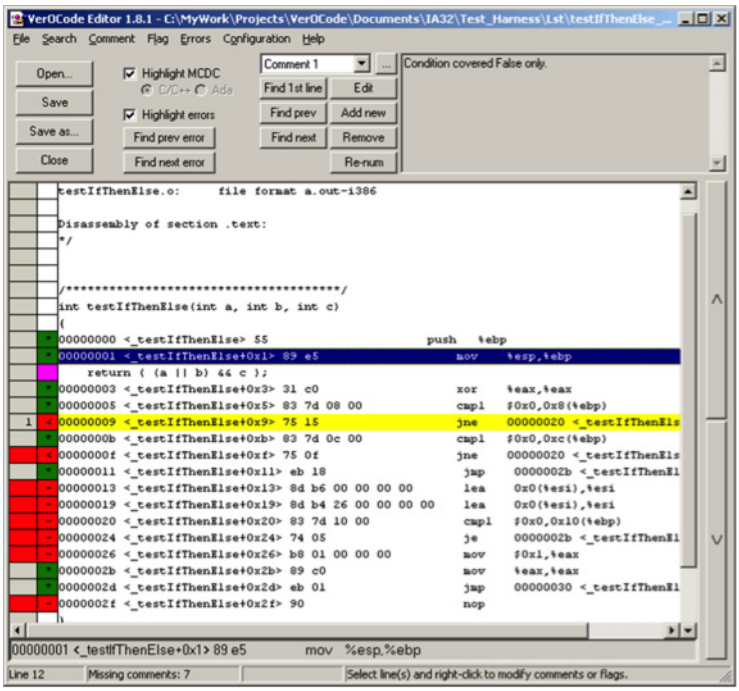

Qualification

VerOCode is accompanied by a Qualification Data kit. It may be used as a DO-178B/C Level A verification tool (as defined by DO-178B) and the coverage results used for Level A certification credit.

Verocel Tool Services

Verocel provides a variety of levels of support for all tools that they offer. This includes standard maintenance with periodic tool updates, expert tool usage and problem resolution through customer support, tool usage training, and expert services to aid customers in performing testing or generating certification evidence for their applicable safety or security standard.