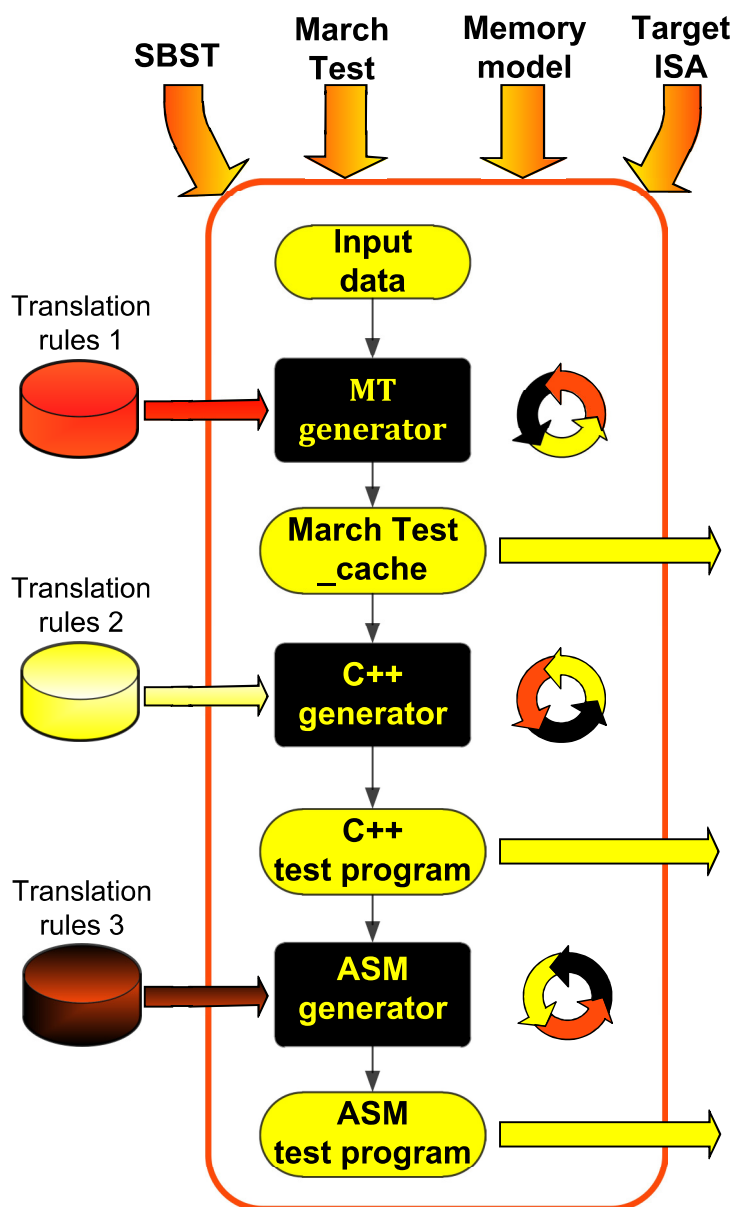




MarciaTesta++

An automatic generator of ASM test programs for microprocessors' data and instruction caches

by Stefano Di Carlo, Giulio Gambardella, Marco Indaco, Paolo Prinetto and Daniele Rolfo



MarciaTesta++ is an EDA tool for the automatic generation of assembly test programs for both data and instruction cache memories.

The tool is very flexible: the user can freely select the software based self-test (SBST) methodology to be adopted, the target memory architecture, and the processor instruction set.

The tool automatically generates the test programs (both in C and in assembly language) with proven fault coverage.

Translated March Test, suitable for cache memories, using the user-defined SBST methodology.

C++ implementation of the test program, useful for visual inspection and cache test emulation.

Software test, in assembler, for the target processor, directly executable on the DUT.

MarciaTesta overview



@ ATS 2011

MarciaTesta V&V



@ IDT 2011

MarciaTesta formalisms



@ EWDTS 2011



{stefano.dicarlo,giulio.gambardella,marco.indaco,paolo.prinetto,daniele.rolfo}@polito.it
www.testgroup.polito.it