Lockheed Martin Develops Platform To Improve Precision Of Software Models

Lockheed Martin Advanced Technology Laboratories (ATL) has developed technology that allows disparate software models to work together -- a breakthrough that will boost modeling precision during system design and reduce late-stage integration costs prior to system deployment.

Existing general-purpose software languages lack the semantic precision to model all aspects of a system under design. By using models that describe both the structure and behavior of a system, Lockheed Martin's New Associative Object Model of Integration (NAOMI) technology will improve modeling precision to a point not possible with any single modeling language.

NAOMI is an experimental platform that allows different models to automatically share relevant information, even if individual models were written in different, domain-specific languages. NAOMI also automatically updates, executes, and assesses the impact of change to models -- all processes that are performed manually today.

"Our vision does not depend on a general-purpose language," said Edward Jones, NAOMI technical lead. "Instead, we see developers constructing multiple models using a suite of diverse, domain-specific languages, where each language will allow parts of a system to be precisely modeled."

ATL developed NAOMI in collaboration with University of California at Berkeley, University of Illinois at Urbana Champaign, University of Leicester, and Vanderbilt University.

NAOMI is part of Lockheed Martin Corporation's Software and Systems Initiative. It is an internally funded program that will develop advanced solutions to issues associated with software development of some of the Corporation's large-scale systems.

For more information on NAOMI, visit: http://www.atl.external.lmco.com/programs/STI/programs/program1.php

Headquartered in Bethesda, Md., Lockheed Martin is a global security company that employs about 146,000 people worldwide and is principally engaged in the research, design, development, manufacture, integration and sustainment of advanced technology systems, products and services. The corporation reported 2008 sales of $42.7 billion.

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