Abstract

The goal of the ARPA/Tri-Service-sponsored Rapid Prototyping of Application-Specific Signal Processors (RASSP) program is to improve by at least a factor of four the cost and time needed to develop and manufacture signal processors. The approach to reaching the program's goal is based on three technology thrusts; methodology, Model Year Architecture, and infrastructure (Enterprise). Using this triad of technology thrusts, Lockheed Martin Advanced Technology Laboratories' (ATL) RASSP team — composed of an alliance of companies — has implemented the first baseline RASSP system, which represents a significant advance over today's state-of-the-art. The methodology and tools have been used to demonstrate cost and design cycle improvements on the benchmark virtual prototype (VP) and have resulted in the development of a hardware/software system that demonstrated first-pass success. Additional developments being performed during the last two years of the program will provide further benefits, enabling demonstration of 4X improvements in cost and time-to market. This paper provides an overview/update of the progress since the 1994 Annual Review.

1: Introduction

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