Invited Talk:

Test and System Level Integration

Gary Smith
Director and Principal Analyst, Dataquest;
Electronic Design Automation Service;
Worldwide Online, Multimedia & Software Group

Abstract
Once again we're in the middle of a design revolution and most people have forgotten about test. In the past we've been able to jury rig a test solution and stick it into the prevailing design, flow with only minimal impact on the methodology. This time we aren't going to be so lucky. This time we're looking at the entire system design problem. Handing off a SLM (System Level Macro) without test is comparable to handing an IC to a board designer and telling him, "We don't know how to test it, but we're sure it'll work fine." In order for System Level Integration to work, test must become a forethought, not an afterthought.

Biography
Mr. Smith is Principal Analyst for Dataquest's Electronic Design Automation (EDA) service of the Software group. He is responsible for all research, publications, and client projects relating to the EDA marketplace. He is also involved in research and consulting projects in the emerging methodologies of RT Level and ES Level Design (ESDA).

Mr. Smith's ongoing activities include the following:
- Oversee the twice annual Market Share and Market Forecast reports, including a yearly look at Europe and Asia by country Market Share and Market Forecast.
- Market Trends Report - Estimate the size of the EDA market, recap major vendors' market share, and provide historical shipments and five-year growth forecasts on thirty seven sub (or sub-sub) application categories.
- User Wants and Needs Studies - Provide an annual assessment of how end users are using their design tools, methodologies employed, users' future plans, and satisfaction with today's tools.
- Dataquest Perspectives - A series of publications that analyze various segments of the design tool market or developments in design methodology.

Mr. Smith has more than 25 years of experience in the electronic design market. Starting in the semiconductor industry, he was involved in some of the first attempts at customer-designed ICs. During the 1980s, he specialized in the ASIC end of the semiconductor business. He was instrumental in the development of Plessey's "Megacell" design system, one of the first workstation-based IC design tools. While at IMI, he introduced "EasyGate," a PC-based design system capable of designing 10,000 gate arrays, some of the largest arrays offered at that time. While at LSI Logic Mr. Smith became involved in the development of the RT Level design methodology, later leaving the company to become a consultant in Design Methodology. Mr. Smith joined Dataquest in January 1994.

Mr. Smith received a B.S. degree in Engineering from the United States Naval Academy, Annapolis, Maryland.