

Keysight Technologies

An In-Circuit Test Channel Partner Interview Series

Everett Charles Technologies (ECT)

Case Study



BOB BOWER

Director of Global Programming,
Everett Charles Technologies,
Longmont, CO

Bob Bower has worked in the in-circuit test industry since 1990 serving as a 3070 engineer at Intel and an applications engineer at HP/Keysight. As the business development manager for APG Test Consultants, Bob focused on leading edge technologies in the global market. APG was acquired in 2005 by Everett Charles

Technologies. Bob now holds the position of Director of Global Programming for ECT and is responsible for operations in Colorado and Singapore and partner relationships throughout the Americas, Asia and Europe.

This article is the second in the series of education pieces relating to in-circuit test programming houses that Keysight Technologies, Inc. regularly works with. In this article, Keysight's Americas Development Manager associated with the ICT products, Stacy Johnson sat down with Bob Bower. Bob Bower is the Director of Global Programming for Everett Charles Technologies.

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Johnson: What changes has your company seen within the ICT programming industry for the last 5 years or so?

common example is circuitry involving DDR2 memory.

Bower: There are many changes and advancements that are visible in the industry, specifically relating to in-circuit test, over the past 5 years. The coming of age of boundary scan would be the most significant in my opinion.

The greatest technology changes affecting the programming houses are not exclusively in the realm of board technologies but rather manufacturing technologies and board physical issues. Lead free, board flex, smaller test points, bead probe, processes like OSP all require the programming houses to have a great deal more knowledge of and involvement in fixture design. The software house that does not fully understand and manage the entire product (software and hardware) as an integrated solution, will not survive in today's market.

Johnson: What do think is driving that?

Bower: Access limitations due to real estate and signal integrity are significant drivers. Additionally, the need to simplify ICT fixtures (cost, maintenance and complexity), is another significant driver.

Johnson: What benefits does having a channel partnership with Keysight provide your customers?

Johnson: What are you doing to respond?

Bower: We invested heavily in Advanced Boundary scan years ago and specialized in that area. It was a place where we could differentiate ourselves from the competition. The fact that it is now in high demand is benefiting us and our customers.

Bower: Keysight has provided us with new product training well ahead of new product introduction. Our customers view us as a neutral third party and often ask us to comment on new Keysight products. Our relationship with Keysight allows us to give them answers from our experience and knowledge in these products. It also gives us the ability to offer emerging technology solutions to problems for which the customers did not previously have good solutions. Since Keysight is a leader in board test solutions, our ability to demonstrate that close relationship provides greater credibility and respect for our capability. When a customer involves us in strategy planning and test requirements/specifications documentation, everyone benefits from having a better test solution.

Johnson: What technology changes with ICT do you see impacting the programming house industry the most?

Bower: Ever increasing complexity in device programming and the large variety of products to use in this area from ISP functions built into the 3070 to external programming bricks integrated into the fixture. Also, the lack of test access is becoming a more intense issue especially in the areas of high speed signals. A very

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