

# GLOBAL SMT & PACKAGING

The Global Assembly Journal for SMT and  
Advanced Packaging Professionals

Volume 11 Number 9 September 2011

ISSN 1474 - 0893

## MANUFACTURING EXECUTION SYSTEMS VS. ERP/MRP

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Rob Boguski & Matt Holzmann  
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## Interview—

# Rob Boguski of Datest and Christopher Associates' Matt Holzmann

*Headquartered in Fremont, California, Datest is an ISO9001 and AS9100-certified provider of advanced, integrated PCBA testing and inspection services to the CM/EMS and OEM communities. Building on 27 years in business, Datest recently added an XR-3 x-ray inspection system from Christopher Associates to enhance its test service offerings.*

*I recently had the opportunity to talk with both Rob Boguski (RB), president and CEO of Datest, and Christopher Associates' president and CEO, Matt Holzmann (MH), about why Datest selected Christopher Associates' x-ray inspection system over all the competing systems currently on the market.*



### **Rob, why did you choose to add the Akila XR-3 to your list of service offerings?**

RB: The XR-3 gives us a cost-effective means of determining the root cause of failures detected by our other test platforms (ICT, flying probe, boundary scan, etc.). The system settles many arguments by producing indisputable visual evidence of board-level failures. Our other platforms detect symptoms; the XR-3 produces the root causes.

### **How does the XR-3 x-ray inspection system enhance Datest's existing test service offerings?**

RB: The XR-3 gives us a reliable verification system that is easy to use, fast to set up, and acts as an interactive tool for showing customers real-time evidence of board failures. Additionally, the system gives us an inexpensive means of verifying suspected failures without going through the time and trouble to write entire test programs.

Now we can immediately drill down to the level of the suspect component(s) and see what is going on.

### **Matt, can you give us your thoughts about adding Datest as a customer?**

MH: We think it is great. Datest has tremendous expertise in test and inspection, and Rob is well recognized as both an expert and arbiter in the industry. His input and that of his staff is vital in help-

ing us to maximize the performance of the Akila x-ray systems.

**What was the process whereby Christopher Associates selected Datest to show the XR-3?**

MH: Our policy with new product introductions always has been to find the most demanding customers and work with them to ensure that the product meets their requirements. This way, we can benchmark ourselves against the best and work with our customers to improve performance if necessary. Additionally, by working with a wide range of applications, we can ensure that we meet the widest range of customer applications.

Datest represents the benchmark in test services. They have a wide customer base and much of the product they are testing is leading edge. Our representative in the area, Pete Silva, knows Rob well and it was a natural fit from there.

**Rob, can you explain how the XR-3 complements Datest's existing x-ray services without duplicating them?**

RB: Datest has had Agilent 5DX x-ray technology for several years. 5DX is an excellent, production-level system for inspecting every solder joint on a board to IPC standards. It is a wonderful tool in that regard and it is busy almost full-time. However, many situations arise in which we only wish to look at a specific location on a board or a small lot of boards (i.e. BGAs or QFNs); the XR-3 gives us an effective and easy means of doing this. All of our staff is being trained in the use of the XR-3, myself included.

**How will the XR-3 enhance Datest's bone pile recovery and failure analysis programs?**

RB: The XR-3 is one more weapon in Datest's arsenal to help us get to component-level failures quickly. It will speed up the process of failed board recovery. We are making quite a name for ourselves in the bone pile recovery arena, as a kind of Test House of Last Resort. As a result, our business has grown and, naturally, new equipment that speeds up our efforts and increases our productivity, such as the XR-3, is most welcome. It will be used heavily in our failure analysis activities.

**Please describe the difference between the XR-3 compared to other x-ray systems you have used.**

RB: It is unbelievably easy to use. I am not exaggerating when I say that in 15 minutes an operator can be trained and performing meaningful analysis of boards. As I said earlier, at Datest, we are taking full advantage of the XR-3's ease of use to train our entire staff in its operation. That way, any one of us can work with customers onsite to provide real-time analysis and feedback of failed boards.

**Matt, how do you see the XR-3 fitting in the marketplace?**

MH: We are very pleasantly surprised. As Rob mentioned, it is very easy to use and offers quite a number of features typically found only in much more expensive systems. Sophisticated x-ray capability is becoming a necessity as designs become more complex.

**How does it fit with your other test and inspection products?**

MH: As Rob also mentioned, root cause identification is critical to yield improvement. The XR-3 is a production-level inspection tool that can be used by almost anyone to find defects quickly and at a low cost. It is an excellent complement to our other test and inspection products.

By using the XR-3 in conjunction with the Intek Plus solder paste inspection systems and Marantz AOI systems, we are able to offer our clients some of the best tools in the industry to reduce defects, repair those that we find more efficiently and improve long-term yields. Sophisticated inspection technology can be expensive and must be user friendly. The XR-3 and our other inspection technologies offer excellent performance at very competitive pricing.

**You mentioned yield improvement. How do quality tools such as these help?**

MH: As we become more sophisticated as an industry, we are finding root causes for many defects that simply would not have been caught in the past. Additionally, with the introduction of new materials such as lead-free solder pastes, process parameters much be adjusted more precisely and the process window is tighter. Using the right tools is critical to process set up and maintaining high yields.

Our customers are seeing real-world failures based upon causes that would never have been detected with older tech-

nologies. Using the right combination of SPI during the print process, AOI after reflow and x-ray after test to verify the causes of many defects helps the user build a more robust process, often in real-time.

Improved yields are directly reflected in our customers' improved bottom line profitability. We believe in providing solutions and results, and by doing so, we offer greater added value to our customers.

**Now back to Rob. We have heard that Datest features in-circuit testing (ICT) and test engineering development for all major platforms. Can you describe some of the new services that Datest offers its customers?**

RB: We are actively raising Datest's profile in the marketplace as the go-to guys for PCBA-level failure analysis and bone pile rehabilitation. To that end, we bring all of our testing resources to bear on the problem of bringing expensive boards back to life.

**Datest also excels in single- and double-sided flying probe testing using the new SPEA 4060 flying prober test system with integrated boundary scan technology from GOEPEL electronic. Can you describe this service for our readers?**

RB: This is a project we have been working on for more than a year, and we are now ready to go to market with the service. Datest, in partnership with Goepel and SPEA, has successfully integrated Goepel CASCON JTAG/boundary scan technology with the six-probe testing capabilities of the SPEA 4060 flying probe test system. Until now, digital testing has been the glaring weakness of all flying probe test systems. Our integration project addresses that weakness and solves it, adding digital-level testing on the flying probe for a fraction of the cost with nearly the same coverage of conventional ICT. It is a breakthrough, and we are proud to be the first to feature this next-generation integration.

Gentlemen, thank you both for your time and for helping our readers better understand your companies and your new working relationship. We wish you continued success.

—Trevor Galbraith