



4th Quarter  
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## Paragon Customers Affirm Solutions Stand the Test of Time

*Doug Crites and Bill Thomas Prove Paragon Solutions through a Decade of Use*

Doug Crites and Bill Thomas have relied for years on Paragon's ConfigBuilder, ATMulator, and FASTest to successfully develop ATM load images and to test financial message processing. Thomas, a software engineer, says he has used Paragon solutions "from the beginning" at CSFi, while Doug Crites has relied on Paragon solutions for testing throughout his career as a QA Analyst at several organizations, including Central Fidelity (which is now Wachovia), Metavante (working as a consultant to Wachovia in Winston Salem, NC), First Data (Wilmington, DE) and FiservEFT (Portland, OR). In this article, these experienced professionals share how they have used Paragon solutions to meet the frequent demand for testing financial transaction processing.

### **Save Time and Effort Creating Feature-Rich ATM Load Images**

Both Crites and Thomas have used ConfigBuilder, Paragon's desktop tool for designing, building, and testing ATM load images (also referred to as ATM configuration files). The two have also used ATMulator Plus, which includes ConfigBuilder's capabilities and allows users to test the entire ATM transaction flow from their desks.

"ConfigBuilder was my first introduction to Paragon software," says Crites. "Before ConfigBuilder, the method of developing ATM load images was extremely cumbersome, and new load images could only be tested on an actual ATM. Adding graphics, using language banks, and implementing any advanced feature was nearly impossible. We used

ConfigBuilder to develop deposit automation and check cashing images. Later, we used ATMulator Plus to take advantage of all the features of ATMs; developing and testing voice enhancements, bulk cash deposits, and more in our ATM load images."

Thomas agrees, "It is always faster to test using ATMulator (especially when creating error conditions) than to test with a real ATM. We use ConfigBuilder and the ReceiptBuilder feature to create ATM programs for our fleet of in-house test ATMs. We also provide first-line support to customer FIs who maintain their own ATM programs using ConfigBuilder."

"ATMulator is a real asset," Thomas continues, "especially when it comes to testing EMV. In the past, it was always easy to obtain (or create) magnetic-stripe test cards. Now, it is more difficult to get an actual customer EMV card to use for testing. However, if we can get the card specifications, we can simply define the card in ATMulator's card database and start EMV testing."

### **Expanded ATM Fault Testing Capability**

Thomas says, "ATMulator is the workhorse of device fault testing. I can create errors faster and more accurately than they can be recreated using a real ATM. This comes in handy when a customer encounters an unusual error condition that hasn't been experienced previously. Although it may be complicated to create precisely the same condition using a real ATM, it is no problem at all to copy and paste the error into ATMulator and simulate the error as often as necessary to

***“ATMulator is the workhorse of device fault testing. I can create errors faster and more accurately than they can be recreated using a real ATM.”***

Bill Thomas  
Solutions Engineer  
CSFi

verify (or improve) the host software’s handling of the situation.”

### **Thoroughly Test Financial Message Processing**

Crites uses FASTest, Paragon’s desktop QA and regression test tool to test financial message processing. FASTest offers thorough testing of issuer and acquirer processing for a variety of ISO 8583 and non-ISO formats, and for

testing transactions, card types, and terminals for an ATM or POS network.

“The primary advantage offered by FASTest is the ability to instantly test new development and cut the cost of certification testing. After you’ve mastered FASTest, the process of certifying with switches becomes just a formality – the vast majority of defects have been identified and corrected beforehand using simulation,” says Crites.

He adds, “We’ve used FASTest to conduct precertification testing, regression testing, and even to create test data for other applications. I’ve used the FASTest HISO version to simulate an Issuer host, creating custom responses using the scripting feature. I was able to launch a version of FASTest to simulate any ISO interface that my employer used – Issuer or Acquirer –and build the messages, transactions, and scripts needed to test new functionality or regression test. I’ve utilized FASTest to simulate the majority of US processors.”

Crites continues, “FASTest’s data wizards enable me to give specific values to ISO Fields down to the bit level – for example, to add address verification (AVS) data. And I can use the ability to compare current results to previous test results when verifying result and currency codes.”

### **Shared Test Cases across the Organization**

“Sharing test cases across the organization reduces redundancy and saves the time each analyst or developer would spend creating the same scenario,” explains Crites. “Test cases are built and stored on a shared drive/LAN for easy access.”

### **Benefitted from Reliable Support**

“Over the last several years, ATM vendors have added many new features to the states and screens, and we’ve often called on Paragon to ask when that new feature would be supported in ConfigBuilder. (There have also been times that I thought something couldn’t be done with ConfigBuilder only to learn that there was in fact an existing parameter that could be configured to provide the desired functionality.)” Thomas affirms, “Paragon’s support is excellent, fast, and professional. I’ve never spoken to anyone with a bad attitude, nor been routed to a call center, nor had to wait days for an issue to be resolved – all of which are far too common in the tech support realm.”

Crites and Thomas have used Paragon solutions to test in a variety of ways and, in Crites’ case, across a variety of organizations. Over the years, they have seen the capability of Paragon’s solutions expand to support new ATM features and new payment products. Do these customers have any advice for Paragon? “Keep up the good work!” replies Thomas.

***“The primary advantage offered by FASTest is the ability to instantly test new development and cut the cost of certification testing.”***

Doug Crites  
Long-time Paragon  
Customer

# Meeting Customer Challenges, Getting Customers Results

## *eCommLink Verifies PULSE, MasterCard EMV Processing Using Paragon's FASTest*



**Company:** eCommLink, a leading value-added prepaid debit card processor

**Challenge:** eCommLink is expanding into international markets and needed a solution for development and quality testing of their payment products. They also required a solution enabling them to test changes to their current domestic prepaid debit processing platform against the PULSE network.

**Solutions:** Two flavors of Paragon's QA and regression testing solution FASTest: FASTest for MasterCard with EMV support simulates MasterCard transactions including chip card capability with EMVCo compliance and FASTest for PULSE simulates the PULSE ATM/debit network.

**Results:** "By using FASTest to simulate and test different types of message formats, including EMV, we've been able to strengthen our QA and development efforts," says John Kimbrough, Vice President of Software Engineering for eCommLink. "Paragon understands our needs and provides proper, timely support."

**Paragon Value:** "It's exciting to team up with eCommLink and assist them with their goals to grow their business internationally," says John Chozas, Regional Sales Director for Paragon Application Systems. "Our experience with EMV chip card implementations around the world and their top notch development team will lead to a successful partnership and a fast time to market for their product."

## *INTERPRO Speeds ATM Configuration Development with Paragon's ConfigBuilder*



**Company:** INTERPRO, a leading provider of ATM//EFT processing solutions for the financial and network services industry

**Challenge:** INTERPRO required the ability to see the ATM states and screen flow as they developed configuration files.

**Solution:** Paragon's ATM configuration solution, ConfigBuilder.

**Results:** "At INTERPRO, we have always had the expertise to configure ATMs with all of the latest features, but the effort was often extremely labor intensive and cumbersome—sometimes requiring a calculator and hex editor," says Kevin Ouellette, President of INTERPRO. "ConfigBuilder simplifies and speeds configuration changes and allows us to easily create new download images."

**Paragon Value:** "After careful consideration of several products, we determined that not only does Paragon have the most robust and up-to-date ATM state and screen configuration software, but also professional and responsive customer support," adds Ouellette. "The training and support provided by Paragon has been outstanding. We enjoy a good relationship with Paragon and consider them a strong presence in the industry."

# Meeting Customer Challenges, Getting Customers Results

## ***Evertec Uses Solutions from Paragon Application Systems to Implement Voice Guidance at ATMs***



**Company:** Evertec, a leading provider of ePayment transaction processing services in Latin America.

**Challenge:** To comply with the Americans with Disabilities Act, Puerto Rico requires that banks provide voice guidance at ATMs. Using text-to-speech, visually impaired customers are able to plug ear phones into the ATM and hear text commands guiding them through their transaction.

**Solutions:** Evertec licensed the text-to-speech add-on module for ATMulator Plus, Paragon's ATM simulation, configuration and testing tool, as well as Paragon Professional Services to implement text-to-speech. Evertec previously licensed ATMulator Plus and FASTest for QA and regression testing.

**Results:** Paragon Professional Services successfully added text-to-speech capability to the NCR ATM's and prepared them for Evertec's ATH ATM network.

**Paragon Value:** "Paragon has helped us automate our testing and make our testing program more efficient—so much so that we've configured our entire test environment around Paragon solutions" says Wilfredo Rodriguez, Assistant Vice President for Evertec. "We've been very pleased with the products, knowledge, training and on-going customer support that Paragon has provided."

## ***UAE Bank Confirms System Capacity with Solutions from Paragon Application Systems and Quality Kiosk***

**Company:** Leading United Arab Emirates (UAE) Bank

**Challenge:** A leading UAE bank was migrating their host operating system to Postilion and required stress testing to confirm that their network of 800 ATMs could handle the transaction volume.

**Solutions:** Paragon's load and performance testing solution FASTress and Professional Services from Wynn Lam, Paragon's Regional Director of Asia Pacific partnering with Quality Kiosk.

**Results:** FASTress simulated the actual percentage of withdrawal, balance inquiries, fund transfers, cash deposits, and utility bill payments incurred in the production ATM environment. To confirm that the system had room for growth, FASTress simulated a 25% increase in ATM throughput.

"Using FASTress and working with Quality Kiosk, we were able to benchmark the bank's ATM switch up to 10 transactions per second which will enable the network to grow by 25%," says Wynn Lam.

**Paragon Value:** "By combining our expertise with Paragon's proven ePayment performance testing solution FASTress, we were able to prove our customer's system capacity in only one month," says Milan Gandhi, Vice President of Quality Kiosk. "We are committed to providing our customers with the highest quality solutions to meet their business objectives and look forward to partnering with Paragon on future engagements."

# Paragon Webinar

## Preparing for EMV: Advice for Acquirers October 27th, 2010- 1pm EST

To curb fraud, most major countries worldwide have migrated from magnetic stripe to chip card transactions using the EMV standard. The United States has not yet adopted EMV, but indications are that it is on the horizon. The US Department of Defense has issued a request for information regarding adding EMV and payment functionality to their Common Access Card which is issued to all employees and contractors of the Department of Defense.

To help you prepare for EMV migration, Paragon is offering a series of complimentary webinars for acquirers and issuers. Drawing on her years of experience assisting Canadian customers with EMV, Paragon's Deborah Spidle will discuss different EMV options for the US and how to prepare for them.

In the initial webinar, *Preparing for EMV: Advice for Acquirers* we will cover the following topics:

- Why are countries migrating to chip cards?
- Why prepare now?
- What is the Process? (analysis, strategy, business case, approval, building the team, following the plan)
- The Canadian experience: lessons learned
- Online sites/resources that anyone can access for free
- How Paragon can help with your EMV migration
- Live questions and answers

For more information or to sign up for the webinar, contact [marketing@paragonedge.com](mailto:marketing@paragonedge.com)



## New Paragon Web Help Desk

To better track customer issues and enhance our product support services, Paragon will be implementing a new web help desk platform. You will still be able to open a support issue on line and to track the issue resolution. In the next few weeks, we will send out information on how to logon to the new platform.

If you have any questions, please contact [support@paragonedge.com](mailto:support@paragonedge.com).

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