Interview with Dr. Edward Miller, CEO of Software Research, Inc.

Welcome to Edward Miller* on ours blog "laricercadellavisibilità".

Edward Miller is the CEO of Software Research, the company that developed the browser eValid, a real instrument for navigation but above all for the quality assurance analysis of the web applications.

Question1 - Francesco Micali: *Edward, tell us a little about your Company, how and when was it started? How the need to create eValid arose?*

Edward Miller: These are actually two questions.

Software Research was started in 1985 as a Consulting and Services organization, and we soon discovered that many companies were faced with similar problems in their QA departments: the need to test their products before releasing them into the market, (or face serious Public Relations and Financial problems if they did not work); and the question on when is the best time to test (at the end of the development cycle, or during the development)?

Everyone was asking: What is the most efficient way to test? How can testing be automated and save the company money? From those requirements in the industry we developed the first automated suite for the client-server environment, called TestWorks.

As the environment changed and most applications became web centric, as early as 1999 we switched our focus on this new medium and applied all of our knowledge and experience about testing to development of the eValid Suite.

The unique characteristic of eValid is that the test engine is built entirely inside the IE browser. It was the logical and natural step to take. It's a sweet solution to a really tough problem.

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Question2 - Francesco Micali: *Is it really necessary to monitor web server performance?*

Edward Miller: Absolutely. Web servers are not always reliable and running well, 24 hours a day every day. All sorts of interruptions occur on a regular basis. For businesses like retailers, advertisers, news broadcasters or even today's social networks, it is critical to deliver the content without delay or disruption to audiences around the world.

Company sales and reputation depend on this reliability. Monitoring has to verify three things: Availability: is the server up 99,999%; Performance: what is the response time of your specific application, to locate the current bottlenecks; and, Scalability: load test your applications, so you can be sure that they scale to meet the volume of the users you expect. Verifying the performance and quality issues, in real time, on a continued basis, the same way the end-user experiences your website, is a necessity, not a luxury.

Question3 - Francesco Micali: *Is it serious if a web site takes a long time before responding? What does "a long time" mean today: 5, 10, 20 seconds?*

Edward Miller **:** The funny thing is that the time that users -- your potential clients -- are willing to wait for a page to download becomes shorter and shorter. Look back at websites built just a couple of years ago.

The webmasters created fancy opening pages, with beautiful animated images and stories; but that page full of Java scripts could take 20 seconds or more to download and display. And people waited, but that novelty of a pretty opening page wore off quickly. In today's hectic and fast paced rhythm, nobody has the time. Studies have shown that your opening page has to be there in 2 seconds, or at a maximum, 3 seconds. Or people click away.

Question4 - Francesco Micali: *eValid appears mainly as a really powerful browser. Is it only this, or is it something else?*

Edward Miller: Indeed, eValid IS a browser, from which you can surf the world wide web. But don't be fooled by its apparent simplicity. It is an entire Web Analysis and QA Suite, with five main components. We wanted it to be easy to use and understood by non-programmers as well as professional QA engineers. The point and click access to the many components and the complex applications might be a bit deceptive.

Since the test engine is built inside the browser, eValid looks at the web applications from inside. It is therefore the ideal way to test complicated web applications, including AJAX applications. Thanks to its unique architecture, eValid can handle a variety of applications, like Functional Testing, Regression Testing, Server Loading, Rich Internet Application Monitoring and even Site Analysis.

This last tool -- Site Analysis -- will analyze and scan your entire website and produce 3-dimensional reports which are interactive. It will show the structure and interdependence of your site, show the bottlenecks and broken links.

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But at the same time, you can use eValid to test the limit of the load capacity of your server. It is therefore a very economic solution in these hard economic times, because from one purchase and with one system, you can solve most of your web application and/or performance problems.

Question5 - Francesco Micali: *What is the technology that supports eValid? Is it patent pending?*

Edward Miller: The patent on eValid has already been issued. The new technology in eValid is now a patented technology. In other words, the fact that it is browser-based and can look at the inner workings of your web application, the DOM, the synchronization issues, which cause so many applications in AJAX to fail, and all the solutions that eValid offers, are all recognized by the Patent Office.

Question6 - Francesco Micali: *We know that there are a lot of load test performance software solutions, and some are free. How is eValid different from these and therefore unique?*

*Edward Miller***:** eValid has no VIRTUAL users, because it is instrumented inside the IE browser, so it reports results entirely from the end-user and the customer's perspective. It not only reports if the site has a problem but also which web page, which code snippet on that page, or the image download time on the page, has issues.

All this can only be done if those performance measurements are taken by a real browser! Every page element can be seen, monitored and reported independently. You cannot get that accuracy from a wrapper around a browser or from a proxy. With those methods, you are really flying blind. There is just no comparison.

The data delivered by eValid is more accurate and truly representative of the end-user experience. This difference truly matters if you want to know what the visitor of your website experiences -- and this mainly is what sets eValid apart.

Francesco Micali: With this last question we conclude our interview to Edward Miller, CEO of Software Research. We say thank you for the availability and we submitted to your attention and for more information next links:

For a general description of eValid see the eValid Website which has a wealth of detail about the product and its application.

- For current information about the product and its application you can read the eValid BLOG.

- There is a good white paper on Web Application Testing.

- For details on the reasons underlying use of InBrowser technology for the eValid implementation please see: Why is Browser Mode Operation Important.

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- For information about use of evalid in a server loading context, please see WebSite Loading and Capacity Analysis.

- To see what eValid users are saying -- and to get a sense of the range of application of the technology -- you can check out the eValid User Forum.

Dr. Edward F. Miller

is President of Software Research, Inc., San Francisco, California, where he has been involved with software test tools development and software engineering quality questions.

Dr. Miller has worked in the software quality management field for 25 years in a variety of capacities, and has been involved in the development of families of automated software and analysis support tools.

He was chairman of the 1985 1st International Conference on Computer Workstations, and has participated in IEEE conference organizing activities for many years.

He is the author of Software Testing and Validation Techniques, an IEEE Computer Society Press tutorial text.

Dr. Miller received his Ph.D. (Electrical Engineering) degree from the University of Maryland, an M.S. (Applied Mathematics) degree from the University of Colorado, and a BSEE from Iowa State University.

Dr. Francesco Micali

is Ceo of Mediabeta, an internet company with core-business in web marketing and web quality assurance (web-usability, search engine optimization, user-experience, web accessibility, web marketing, web 2.0).

From March 2002 to December 2008 he teached "Multimedia systems" as contract professor to University of Messina. He collaborates with academic institutions and universities.

He is member of the Human Computer Interaction Association.