

## *Message from the President*

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Gaining new perspectives....

With our busy, demanding schedules of testing software with limited time and resources, it is easy to become internally focused and lose awareness of what is happening in the industry and within our profession. Taking time out to attend a CQAA monthly program or Lunch & Learn helps to learn new ideas.

The value of gaining new perspectives was voiced by the people who attended the North America Quality Engineered Software and Testing Conference (QUEST) that was held in the Chicago area the first week of May. These people highly valued the interaction with peers in their field (conference attendees) and discussion with knowledgeable, easily approachable speakers who took the time to do Q&A at the end of their presentation or participated in round table discussions. At the conference they found there were many people in the field with excellent knowledge who were friendly and willing to share their experience. QUEST attendees found it very informative learning about how other companies test, their testing challenges, and how improvements can be made in their own testing processes.

Gaining new perspectives is also about keeping current with today's 'hot' topics. Based on attendee feedback at the QUEST Conference, the topics that are of most interest to QA professionals are agile, test automation, and mobile apps. And not surprising there is interest in combinations of topics such as agile projects for mobile apps and test automation on agile projects. Agile, automation and mobile are the new frontiers of technology and methods where QA professionals need to build awareness and skills. CQAA will continue to align our education events throughout the year around the topics of highest interest to our community in addition to providing core topics.

*Have a great summer!*

**Nancy Kastl, President CQAA**

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Save the Date  
**QAI Training Week**

August 21-24, 2012

Are you seeking in -depth training in Agile Testing, Scrum, Measurement, or Test Automation? Two-day classes on these topics will be held in Chicago during August 21-24. For more information or to register, see [www.qaiglobalinstitute.com/innerpages/Calendar.asp?ID+USA](http://www.qaiglobalinstitute.com/innerpages/Calendar.asp?ID+USA).



## **Membership – A Great Option to Consider**

For those of you who are part of CQAA as Contacts, **Cindy Glaser, CQAA's Membership Director**, has a great message for you below.

If you're a QA/QC professional, or any other IT professional who values quality, the last few years have been a time of tremendous change for you. Perhaps you have made the transition to Agile. You may be working with offsite or offshore teams. Most likely you're being asked to do more in less time, and find yourself as much as a risk manager as you are a software tester. You may even be in transition and are planning your next move. Staying ahead of the game, staying relevant, is crucial as our industry changes.

As you're already aware, the Chicago Quality Assurance Association is working to identify trends and issues in our industry and provides opportunities for our members to learn, network and collaborate with peers, and establish credibility through certification. Chances are you have already attended a CQAA program or conference and have applied what you've learned back at the office.

As a member of CQAA, you will be the first to learn about our monthly programs, conferences and classes, and you will receive the CQAA Quality Journal, a periodic publication that reports from the front lines of our industry, all presented and written by professionals like yourselves who know how to succeed, now and in years to come.

I invite you to become a member of CQAA. Becoming a member is as simple as going to our [website](#) and signing up. **There is no cost to become a CQAA member**; in fact membership in CQAA can mean discounts on conferences and special events. If you do not become a member, you may miss out on offerings that are valuable to you.

I hope you will join the Chicago Quality Assurance Association and look forward to seeing you at one of our upcoming events.

## July Speaker Program

### Automation using Open Source Frameworks like Selenium and TestNG

Friday, July 27, 2012 – 1:30 to 4:00 PM

#### About the Topic

In a fast paced Agile world, small incremental releases is the key. At Orbitz.com we follow a two-week release cycle to production. As we continue to improve our release process, we are quickly moving towards automated deployment via Glu, Artifactory, and Gradle. Solid automation coverage becomes strategically important. We use the latest versions of Selenium (Webdriver) an open source framework for our UI based testing and TestNG runner, another open source tool, for service and back-end testing. Together with automated end-to-end integration testing that includes booking and cancellation and Cross Browser testing using a proprietary tool call Chibot, we cover key hosts for pre-production testing. Come join the Orbitz team and learn about their effective use of tools. For July's topic a team at Orbitz will like to cover following areas of work:

- TestNG and Selenium - UI Testing
- MDF – Mock Data framework for supporting functional and regression testing
- Chibot – a tool built by technology team at Orbitz to do Automated Cross browser testing

#### Key Learning Objectives

The goals of this presentation are to:

- Showcase how a fast paced Agile environment can benefit from frameworks like Selenium and TestNG
- How we can reduce a lot of manual churn by Automated cross browser testing
- What are the challenges with Mocking tools for Datasets and how we can address those challenges

#### About the Speaker

**Anaf Durrani** is Director of Technology, Product Development. Most recently, he was leading the Quality Engineering organization at Orbitz, directing a team of software and quality engineers across four continents. He is an innovative, results-driven leader with 12 years of progressive experience. Anaf spearheads projects within diverse organizational environments, including leading cultural change and strategic initiatives around global project and program management, strategic outsourcing, vendor management, software engineering, product design, development, and quality engineering. For Anaf, the focus is on enhancing the customer's experience, increasing productivity, quality, and reducing cycle time. His industry experience includes online retail travel, ecommerce, and telecommunications.

**Amrish Deshpande** has around 12 years of industry experience in IT. Amongst other things he has been Technical Lead at orbitz.com during Global platform creation and implementation of Orbitz.com latest and greatest technology, delivering key components for Internationalization effort for multiple points of sales and working on improving Continuous Delivery and Continuous integration processes. He is currently leading a team of programmers and software engineers at Orbitz.com who specialize in building frameworks that help Automation in Quality Engineering.

#### **Host and Location**

**Orbitz**  
500 W. Madison Street, 8<sup>th</sup> Floor  
Chicago, IL 60606

#### **Agenda**

1:00-1:30 Sign-in & Networking (please do not arrive before 1:00 pm)  
1:30-1:45 Welcome and CQAA Announcements  
1:45-4:00 Presentation (15 minute break at 2:45)

REGISTRATION IS REQUIRED TO ATTEND THIS PROGRAM.

PLEASE REGISTER BY Monday, July 23, 2012 at <http://www.cqaa.org/>. If you have any questions, please contact CQAA Program Director at [programs@cqaa.org](mailto:programs@cqaa.org)

## CQAA News (cont.)

### CQAA Sponsor Program Highlights

CQAA offers a number of sponsorship opportunities which are outlined below. Sponsorships help fund a variety of events and activities and serve to minimize participation costs for CQAA members.

#### CQAA Annual Sponsorships

##### Service Provider Sponsorship

Visibility through your company logo, description, and website URL incorporated on the CQAA website as a featured sponsor and recognition of your company as a CQAA sponsor in a variety of ways including recognition at events and CQAA media resources.

##### Enterprise Sponsorship

Recognition of your company as a CQAA sponsor in a variety of ways including recognition at events and CQAA media resources along with discounts for all employees at a variety of QAI and CQAA events

#### CQAA Dinner Events Sponsorships

CQAA has two dinner events each year, one in the spring and one in the fall. The dinner event features an industry renowned keynote speaker. Sponsorships include **Speaker**, **Information Table**, and **Dinner Table**.

#### CQAA Contributors Program

Donations of funds of any amount are accepted as well the opportunity to provide a facility and refreshments for CQAA program events.

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## Certification Highlights



Professional certification does make a difference for many organizations. In addition to the actual accomplishment, those achieving this status gain valuable knowledge in the profession. The QAI Global Institute provides the certification and local chapters provide some level of support to prepare for certification.

CQAA actively supports and hosts study groups and Prep Courses in the Chicago area for the professional certifications listed below. **Study Groups** are provided at no cost to the attendee and are formed based upon the number of people interested and typically meet weekly for a period of several months. **Prep Courses** are delivered over a two day period. Location and cost of Prep Courses is shown below. Go to [www.cqaa.org/certifications](http://www.cqaa.org/certifications) for more information and to register.

### CQAA Job Posting Board

Are you looking for some great people to work with? Whether you are looking to add to your team or looking to join a team, you will want to explore the CQAA Job Posting Board. Since its launch, this service has seen consistent use by companies looking to find software quality professionals. The cost is quite reasonable for companies to post their available positions and it makes perfect sense to connect with the CQAA to find the right talent. If you are in the market, keep checking as new postings appear on a regular basis. The link to the service is on the main page of the CQAA web site.



## Industry Perspective

*Industry Perspectives are offered by recognized professionals for the purpose of sharing information with our members on approaches, techniques, or information that may be useful to professional growth and development. The content is the property of the author and any reproduction of this content outside of this publication is not permitted. Anyone interested in this content or the information conveyed in this article should contact the editor of this journal directly at [edit@cqaa.org](mailto:edit@cqaa.org).*

### **Adapting to the Present and Future**

#### ***Profiling a history of innovation since 1901***

The perspective offered in this edition is derived from a conversation held with Donna Gardner, Quality Assurance Director with Walgreens, discussing where we stand as a profession as it relates to her experiences at Walgreens, an innovator in the pharmacy and related services industry since 1901.

We appreciate Donna's willingness to share a very meaningful story for all of us in the software quality industry. Donna has been a leader in the software quality industry for over 30 years. Her experience at some of the better known organizations in Chicagoland provides a solid sense of her ability to solve issues we have been faced with for many years. In her recent years at Walgreens, she is identifying and implementing innovations with her team, their processes, and their use of technology to deal with ongoing innovations in services that Walgreens offers to their customers.

In recent and future issues of this newsletter, we have and will discuss a few key areas –  
What challenges and opportunities do we face as software quality professionals?  
What techniques and approaches have been tried to address those challenges and opportunities?  
What innovations have been successful in helping organizations and individuals adapt to changing times?

The CQAA Board of Directors and the Editor of this publication will continue reaching out to our members to seek your input so start pondering your answers to the above questions. As always, we encourage you to share your perspectives so don't necessarily wait to hear from us. You can reach out to indicate your willingness to be included in this effort by emailing us at [editor@cqaa.org](mailto:editor@cqaa.org).

We began the discussion in the previous issue with our perspectives on the skills requested and required for software quality professionals, and continued with a perspective on the challenges and the opportunities facing our profession. In this issue, we will focus on specific challenges, opportunities, and innovations affecting Walgreens and the team working with Donna Gardner.

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## Industry Perspective (cont.)

Even with a 98% Defect Removal rate, Donna Gardner and her team at Walgreens are looking to improve. Since her arrival at Walgreens in 2010, she has been dealing with improvements and innovations to the technologies that support the Walgreens business and those used by her team to support the software quality effort. As all of us know, managing change can be quite challenging at times and it has certainly been that way for the Walgreens team.

Some people may remember the television commercial for a certain technology company from a few years ago that showed a plane flying while workers were building the plane. We compared the journey at Walgreens with a similar experience but more closely to the effort of changing the plane engines while the plane was flying.

The application teams found it necessary to move to a release schedule that introduced updated software in one or more areas of the Walgreens infrastructure every three weeks, with patches going in weekly. The hope is to continually shorten that release schedule.

Let's take a moment to define the "infrastructure" as it exists at Walgreens. Based upon a recent earnings press release, as of May 31, 2012 operated 8,343 locations in all 50 states, the District of Columbia, Puerto Rico, and Guam. Of those locations, 7,890 are drugstores, which is an increase of 175 in the last year. Walgreens also operates worksite health and wellness centers, infusion and respiratory services facilities, specialty pharmacies and mail service facilities. Its Take Care Health Systems subsidiary manages more than 700 in-store convenient care clinics and worksite health and wellness centers. What is listed above is familiar to their customer base. Their infrastructure also supports the locations and applications that support those customers.

Donna's team is comprised of more than 100 software quality professionals between two United States worksites that support Walgreens project teams with a majority of her team housed at offshore locations. Her team focuses on Walgreens.com and Drugstore.com of the infrastructure described above. The two worksites are different in organizational structure and processes. Besides the Walgreens team in the Chicago area, there is a second worksite and team supporting an online retailer which services pharmacy customers that was acquired by Walgreens. The Walgreens worksite supports a large and technically diverse organization; the other site is smaller and more nimble as is customary for organizations without many physical locations to support.

So, one of the first areas of challenge is **Process**. How do you mesh two organizations that are different in size, approach, and process? Beyond just the two organizations in the United States, consideration has to be given to the offshore team. Donna's past experience with the offshore partner chosen by Walgreens helped in managing changes to process that affected all parties. As many of you are aware, working with offshore partners can be challenging for a number of different reasons. Some of the challenges identified by Donna besides physical proximity include the ability to clearly define roles, responsibilities, and deliverables.





## Industry Perspective (cont.)

She also identified the need to clearly understand the offshore partner's process. One of the keys to success involved onsite representation from the partner organization who communicate project team needs to the offshore resources. For the overall team, she felt it important to ensure a standardized process that allows some flexibility. Software Quality professionals can sometimes be accused of requiring too much process, and Donna is not immune to that, but she focuses process in areas that enable each team to report and understand status for all activities and deliverables while projects are underway.

The last key benefit of a standardized process is a predictable and repeatable approach to testing. With a strong desire for reduced cycle time, management and project teams need to be able to trust that the results of the testing effort are accurate. Because of the standardized process, the Walgreens test team has maintained success in accurately reporting their daily burndown rate, confirming effort achieved and effort remaining.

When she arrived at Walgreens from another major retailer in February 2010, she and her team had an inventory of 5,000 test cases to support the area of that infrastructure described above for which they were responsible. The testing effort included a fairly manual effort to validate the Graphical User Interface (GUI) to confirm user interactions and backend testing to confirm the data processed correctly.

In addition to getting herself settled into the new organization, she was given another opportunity (opportunity = challenge) familiar to many of us. She and her team were expected to convert the 5,000 manual test cases to automated test scripts by January 1, 2011. For those of you unfamiliar with the effort to automate any test, moving from 0 to 10% is tough enough. The effort of automating 5,000 test cases is quite daunting.

The transition to automated tests fits into a second area of challenge, **Skills**. One of the long standing issues with automated testing is inclusion of the manual test analysts in the automation effort. In years past, there was a wall built between manual testers and test automation analysts. At most, the manual testers would record their manual tests and then turn them over to test automation analysts who would update the automated tests with the necessary technical components to run. The tests would be run and then might have to be recorded again when the next build was received from the Development team, usually dealing with changes to objects that were used to create the GUI (i.e., buttons, fields, etc). There are certainly variations to the experiences for each organization and the team at Walgreens is certainly learning how to deal with the use of technology for their testing efforts.

The first effort was to utilize the licenses already on site for the HP QuickTest Professional (QTP) Functional test automation software. Walgreens had committed to that vendor and was also using some of the other HP products, including Quality Center to manage the testing effort. Once the conversion of the 5,000 manual test cases was complete, the issue of maintenance of those automated tests came into play. Within the desired release schedule, the test team found that 60-70% of the automated tests had to be updated for each release. The available resources for the teams testing each release could not keep up.



## Industry Perspective (cont.)

There was a separate effort underway to manage the Regression testing. That team started by mapping critical business flows to test cases. Once that process was complete, they identified gaps in test case coverage for critical business flows. The Regression team also worked with the Release test teams to understand the inventory of automated tests. They mapped the approved automated tests to the critical business flows and that helped them choose which tests should be automated. They worked to enhance the automated tests to make them usable for the Regression testing effort.

The manual test analysts were trained in the use of QTP for recording of tests and execution of those tests once they were ready for use with assistance from test automation analysts. So, skills were raised from manual testers who navigated windows screens and, perhaps, did some backend data validation with SQL queries to using QTP and SQL to conduct the majority of their testing.

The combination of the Release schedule and maintenance of the automated tests was causing stress on the teams. Donna's approach to reducing the stress was to look at Selenium, an automated testing product introduced in recent years for Web testing. They liked what they saw and proceeded to train their manual testers in the use of Selenium. This change was well received by the test teams so they are now moving toward using Selenium for 50% of the testing, focused on the GUI.

A challenge with asset tracking did arise that is being worked on. It is possible to lose track of the traceability between business processes and test cases to begin with. It is even easier to lose traceability with automated tests. There needs to be a process to ensure that traceability is reviewed and updated while tests are being created or when processes are updated. Overall, Donna feels strongly that it is important to not lose track of assets, skip processes, or not report issues that affect the overall goals and performance of the team.

Even with QTP and Selenium, there remains a challenge in meeting project and release cycle needs. Walgreens is now in the process of revamping testing using a tool called Cucumber, an integrated product suited for Agile environments. The core usage of Cucumber involves use of Methods and Flows with creation of User Stories associated with Feature Files which then allow for creation of automated tests within 1-2 days of receiving the Feature Files.

A slightly different approach was taken with Cucumber. A SDET (software Developer Engineer Tester) has been building the Framework for Cucumber, an unusual bit of cooperation between the Development and Testing organizations. If all goes well with the version of testing then Donna and her team will move to using this tool..



## Industry Perspective (cont.)

In addition to the new automated tools, the test analysts, both manual and automated, need to be able to understand and work with Java, XML, SQL, C#, .Net, and other technologies. Suffice to say, manual testing has evolved into use of several technologies to make sure the applications are validated correctly. In a nutshell, Donna and her team require a test analyst who is less manual, technically skilled, and has some development experience.

As if all of the above was not enough, Donna and her team must also focus on validating web and mobile apps against accessibility standards to ensure that their users and customers with disabilities are able to effectively use the technology they provide. While this type of testing is important for any public facing organization, it is quite important for Walgreens customers to the point that the software quality team works with outside firms to perform audit style validation. The other unique aspect for mobile apps is the different design and feature offerings from an application available on a standard computer due to the limited size of the mobile devices.

While some of the details may differ, the experiences of the Walgreens organization are similar to other organizations. The organizational structure, technologies, and processes may vary but the challenges remain in maintaining excellence and providing value to project teams and the organization itself. Based upon the progress described above, it seems likely that the Walgreens team will continue to be innovative with their applications available to their customers and their software quality techniques, tools, and overall approach.

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Techniques and innovations addressing the challenges and opportunities will be covered in the subsequent issues of this publication. Sharing of ideas is an important ingredient to the success of any profession. We look forward to hearing from you so we may include your perspective. You may contact any one of the Board members or send an email to [editor@cqaa.org](mailto:editor@cqaa.org).

## *CQAA LinkedIn Topic of the Month*

Recent topics presented to the CQAA Linked-In community are shown below. Listed below is a recap of the discussion.

### **“How important is it for a QA Analyst to be able to write code?”**

1. Very (important). At least SQL. At least batch files or bash or powers.
2. That depends on the type of QA testing that the analyst is performing or the stage in which the testing is to take place. If the analyst is performing unit testing, white-box testing, or automation testing then obviously coding skills are very important, if not essential to the job. However, I have seen many people develop very successful careers in QA without ever touching a line of code. These individuals typically perform tasks such as system based testing, black-box testing, or running through user stories.
3. QA Analysts (Testers) should focus on industry knowledge not technical skills. QA Analysts should fully understand the data and functional needs of the business. Leave coding to the programmers.
4. I want someone who can test and do qa and setup qa processes and lead a qa/testing team. Business experts are business experts. Testers are testers. Project managers are project managers.



## CQAA Mission

The Chicago Quality Assurance Association, the Chicago Chapter of the QAI Global Institute is a nonprofit professional organization that was established in 1984 to promote quality principles and practices within Chicago-area companies. CQAA provides a forum for information professionals to present and discuss quality and process management within information systems, technology, and services.

## Objectives

- Provide a variety of educational opportunities in the Chicago area for quality professionals and other advocates of quality.
- Facilitate networking and the exchange of ideas among quality, process management and information technology professionals.
- Sponsor presentations on quality and related topics by experts and by members.
- Foster professional certifications through access to examinations held in the Chicago area.
- Provide an opportunity to earn recertification credits towards professional certifications through membership and attendance at educational programs.
- Maintain lines of communication with other professional associations and foster cooperative activities of common interest.

### *Upcoming CQAA Events*

Date	Title
July 27	Automation using Open Source Frameworks like Selenium and TestNG,

## Chapter Leadership

CQAA is served by a self-perpetuating Board of Directors that meets to plan, implement and review programs and functions. To ensure that the CQAA Board remains strong, the directors have adopted a succession plan. All board positions have detailed descriptions that identify the responsibilities of the Board Members. Board positions that become vacant will be posted on the CQAA website and applications will be accepted at that time.

## Board Members

Cindy Glaser, Membership  
 Nancy Kastl, President  
 Mike Lawler, Secretary and Journal Editor  
 Kim MacDonald, Certifications  
 Fabrizio Stortoni, Programs  
 Sara Joseph, Treasurer