Putting the User Back into User Acceptance Testing
letter from the editors

Thanks for taking a look at our first issue of the bridge for 2007. As the year moves into full swing we find the Business Analyst role continuing to expand and mature. There are ten conferences/symposiums for BAs in the US this year! Only two years have passed since the first US BA conference was held in Boston. This is a very rapid growth rate. See page 16 for the dates and locations of these conferences and related events. We look forward to seeing many of you at these events.

The growth of the BA role is also clearly demonstrated by the increased membership in the IIBA™. See the IIBA Update (p. 15) to read about the newly released certification program. Three B2T Training employees were in the first group of 15 people to become Certified Business Analysis Professionals™ through the IIBA. Congratulations to Barbara Carkenord, Jonathan "Kupe" Kupersmith, and Kevin Quilliams!

Speaking of BA certification, we are excited to announce that we have enhanced our certification program based on feedback from our customers. We now offer two levels of recognition—BA Associate and BA Certified.

As BAs we are known for our love of detail. Then why is it that the majority of BAs are not very enthusiastic about testing? We feel this may be because testing involves many different activities and BAs need more direction in which of those activities they should be involved. This issue focuses on Requirements Validation and User Acceptance Testing. These activities are critical success factors saving a significant amount of project time and money while increasing the quality of our solutions. Our main article presents a new approach that BAs can use to get business stakeholders more involved in UAT (p. 3). In addition, BAs should lead the team through detailed requirements reviews before the solution is built. See the Did You Know? and Ask the Experts columns for some simple tips regarding requirements reviews. With the focus on different testing approaches, Lost in Translation offers clarification on testing terminology.

Every BA working on software projects should have an understanding of Requirements Validation and software testing. Our new course, Requirements Validation, equips BAs with tools to ensure solutions are usable and meet the business needs (p. 17). We have included a book review of The Complete Guide to Software Testing, which is an excellent resource of principals and guidance for software testing.

In this issue MDI Group highlights the importance of bridging the gap between requirements and Quality Assurance. Onsite Resource Solutions shares expertise regarding quality metrics.

TINA JOSEPH and BARBARA CARKENORD

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I recently worked on a project in which a major defect was found after the software application moved to production. This defect caused the users to perform three days of manual processes. Users on the IT project team worked countless overtime hours. The defect also resulted in a frustrated user group and business sponsor. The project team’s morale was low and the business users lost a great deal of confidence in the project team’s ability to deliver quality software solutions. To reduce the risk of making this crucial mistake in the future the project team improved the UAT approach by getting users more involved.

**Traditional Approach**

Too often User Acceptance Testing is not taken seriously. For many reasons UAT gets
shortened, is not conducted in a way that ensures a successful project, or the worst scenario, is not done at all.

An approach I have used in the past consisted of the project team members—Business Analysts and QA Analysts—writing test scripts and providing demos of the new application to the users. The users would then walk through test scripts step-by-step. In some organizations the BAs write and execute the UAT tests and then present the results to the users for sign-off.

Traditional approaches are often not effective because they are missing a key ingredient—the right amount of user involvement. In the project previously mentioned, there were five major issues relating to UAT that we had to address. These are common problems in many organizations related to lack of user involvement:

- Users may not be fully vested in UAT. In the traditional approach the users are directed by the BA during UAT and are brought in too late in the project to have an impact on the test plans. This results in a lack of ownership by the users and less responsibility on their part for the success or failure of the project.
- Users do not fully understand how the new functions should work when they are asked to test them. Just seeing a demo is typically not enough. This can result in the UAT session becoming a training opportunity and not a true test.
- Tests are often generic and are not all based on real-life scenarios. If the test scripts are written by the IT project team, there is a greater risk for missing real-life scenarios. This is because the IT project team does not use the application every day like the user.
- Project team members are usually pressed for time. Often a BA has already been assigned to perform requirements activities on another project during UAT. Balancing multiple projects means that BAs have a hard time focusing on UAT, while meeting their other project deadlines.

- High pass rate of UAT test plans. Ironically, this is not a positive thing. Often a BA writes test scripts and tests them himself prior to UAT to ensure the scripts pass. When a BA writes the test scripts the users are not given an opportunity to interject enough real-life scenarios to validate the system.

To address these common issues and increase the chance for project success we need to take a new approach to UAT.

A Recommended Approach

1. Involve key users early

Once Quality Assurance is testing, UAT planning should start. Identify users who have a deep understanding of the business requirements and are change agents for the group. Identify all of the tasks that need to be accomplished, the owners of each task, and a high-level timeline. Doing this will help determine if all the right people are involved.

2. Provide hands-on training of the system for the UAT participants

Providing a demo is not good enough. Once QA feels the application is stable enough, give hands-on training to the UAT participants. It is critical to explain to the users that issues may arise because QA testing is not complete. Ask the users to stay focused on how the application works and not so much that it is not fully operational.

3. Use facilitation sessions to create test plans

Have the users write their own test plans. This may sound far fetched, but it is key to getting UAT as close to real life as possible. The BA’s primary role is to facilitate the UAT test plan creation process, but not to write a single test script. Using process workflow diagrams and Use Case documentation from the requirements package, ask the users to determine what processes and system functions need to be tested. Provide the UAT participants with examples of test scripts and explain the need to capture the goal of each test, the necessary steps, and the expected results. The steps become second nature to the users of the system and they find it difficult to document each step they take to accomplish a goal. Help them think through their processes in detail to ensure they have documented each task completely.

Review the test plan. Once the test plans are written, the BA reviews the test plans to ensure all the necessary functions and processes impacted will be tested.

Determine necessary inputs and outputs

Once all of the test plans are written, ask the users to document the inputs they need to complete each of their test scripts and the outputs that will be generated. Make sure all UAT participants have the necessary inputs to complete their tests based on all of the outputs. If some are missing, enlist other users to create those inputs during testing execution.

Make it as close to real life as possible. To enhance the real life feel, the BAs work with the users to determine a testing schedule. Make sure the schedule follows their daily process. Again, use process workflow and Use Case documentation to ensure the tests plans are executed in the order the activities would be done in real life.

4. Ensure users execute the test

The BA’s role is to ensure the test environment is set up and to assist the users as they execute the tests. The user’s role is to execute their tests and document the results.
The Results

Using this approach can help reduce the risk of major defects making it to production and ensures the users are satisfied that the solution meets the objectives of each project. Here are some of the key results from using the improved approach:

- The UAT participants take responsibility for the success of the release. They feel part of the team due to the collaboration with the IT project team and involvement in UAT planning and test creation and execution. They also help champion the benefits of each release to the larger user base.
- Due to the pre-test training, users are comfortable with new application. This allows the users to develop real life test scenarios and the time allotted for testing is not used for training.
- Since the users create and execute test plans, the tests are very close to real life scenarios and the users are more comfortable running the tests.

In addition there are tangible benefits to future projects:

- QA incorporates the scenarios documented by users in the QA test plans for future releases.
- Over time there is decreased use of the BA’s time for UAT. With the BA facilitating the UAT process and not doing most of the work, the BA can focus on other necessary tasks like launching the next project.

Implementing the Approach

A lack of user involvement in UAT is not uncommon. I urge you to try this approach even if you have not experienced a drastic wake-up call such as major defects in production. As we are called upon to deliver solutions faster and faster, it is just a matter of time before major defects make it to production. Here are some tips for getting started.

- Start small. To help manage the changes with the new approach, identify a release with a low number of users and/or new functions. This will allow you to test the new process, discover lessons learned, and make the necessary adjustments.
- Plan for additional time. Using this new approach will initially require more time. Work with your Project Manager to plan more time into the UAT phase for your first 2-3 projects. As you get accustomed to this approach, it will require less time.
- Identify power users and champions of application. They are your best testers and have the most interest in the project’s success.
- Sell the benefits of the new approach to your users. As with any new approach, BAs need to help the users understand what the approach is and how it will ultimately improve their business.
- Save the user test plans for future releases. Reuse of test plans will help speed up the time dedicated to UAT in future releases and can be used to update your QA test plans.

Successful implementation of this approach helps ensure projects meet the user needs. The collaboration of users with the project team leads to a shared responsibility for the success and failure of the project.

Recommended Approach

1. Involve key users early
2. Provide hands-on training of the system for the UAT participants
3. Use facilitation sessions to create test plans
4. Ensure users execute the test

What is UAT and Why We Do It?

UAT is the final approval by customers signaling the new system or enhancements can be deployed. UAT is unlike other types of software testing (e.g., unit testing, system testing, integration testing) because during UAT we are looking for conformity. We need to validate that the solution meets the business objectives and works correctly with real-life scenarios. UAT is typically conducted by users with assistance from the BA and other project team members.

UAT is most often conducted before a system is deployed into a production environment. For higher risk projects UAT may continue for a period of time while running the old system and new system in production. This gives the users ample time to become comfortable that the new system meets their needs. For commercial software companies UAT is also known as “Beta” testing. Here the system is launched into a production environment, but only to a subset of customers who will provide feedback on defects and necessary improvements.
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Involving Quality Assurance early in a project's life cycle positively impacts application quality and decreases costs because errors (defects) are discovered early in the process. Project teams who have access to a QA resource are very fortunate. By utilizing QA techniques and processes, higher quality requirements will be developed leading to higher quality applications.

In most environments QA is used as an interchangeable term with testing, although testing is only a component of QA. Gartner Group says “testing, which is a back-end defect removal process is not quality assurance.”1 Testing is typically defined as the time between the end of development and the delivery due date. Many of you have undoubtedly experienced how this time-frame seems to shrink as development is delayed while the delivery date remains unmoving. Pressure mounts on the QA team as they strive to ensure quality and complete testing in a very limited time. Often testing is reduced in scope and coverage. Additionally, all defects found must then be quickly analyzed and fixed by the development team in order to be re-tested, or the application is released into production with known defects.

Writing test cases from requirements and design specifications can prove a daunting challenge for the QA team when they have not been included in the creation of these documents. As a result, the test writers must often return to the BA for clarification or more detailed information. Sometimes it is not possible to truly test a requirement based on the way it is written. All of these things contribute to reducing the overall quality of the application and driving costs up.

The benefits of involving QA early in the project life cycle are:
• Discover errors early in the project when they are less expensive to correct
• Begin test planning and design of test cases based on QA's knowledge of business requirements
• Decrease the cost of the application and the overall length of the project
• Improve the accuracy and consistency of the requirements

According to Forrester, “Early testing is a best practice for all types of software, because the cost of defect repair increases with time.”2 According to another article by Forrester “While many firms working to improve software performance begin with performance testing, requirements are really the place to start.”3 Countless articles from numerous sources all point to the best practice of involving QA and testing during the requirements phase, as one of the keys to successful software development.

So, how do we bridge the gap between requirements and QA? Some application development processes do not involve QA early enough. Both the PM (Project Manager) and the BA need to work together to bring QA into the life cycle early. Collaboration between the roles allows for improved communication within the team and promotes a focus on overall quality.

Practical Best Practices

Educate yourself
Learn about how QA and testing activities are planned, designed, and executed. Familiarize yourself with any templates being used. Ask to see samples of completed documents. Find ways to be involved in the quality planning process and selection of standards to be applied.

Engage with QA and review their test plans
If you have not worked with your QA resource before, reach out and team build. Review their test plan and understand how QA has tied it back to the original requirements. You can also leverage this understanding when you as a BA work with users during UAT.

Build QA involvement into your requirements plan
Request that QA test the quality of your documents by performing a peer review of the documents for clarity, conciseness, and accuracy.

Provide updates to QA
Leverage your knowledge of the project and the business to keep QA in the loop as the project evolves. Ensure that QA remains informed about requirements.
changes so that these changes are incorporated into their plans.

Benefits
You may be wondering if implementing these best practices will truly have a meaningful impact on the project. Or perhaps you are looking for ways to communicate the value to other stakeholders.

Reduced life cycle timeline and costs
QA's early involvement in the SDLC allows QA activities to take place in parallel with other life cycle phases. Additionally, QA reviews throughout the life cycle can uncover defects as they occur, rather than just at the end of the life phase. When the defects are corrected closer to the time they are encountered, their impact is drastically reduced. Gartner studies state that we should "remove defects during the stage in which they were inserted. Whatever one calls them – peer reviews, verification, inspections – static testing in-phase is the biggest payback with the lowest cost an organization will find in this list." 1

Increased user satisfaction
By involving QA early in the cycle the overall quality will be improved. QA can assess the feasibility of testing the functional requirements (as written) earlier in the life cycle. The BA can then review the findings with the client to explore alternatives and ensure that expectations are clearly defined, thereby increasing user satisfaction.

Boosts team morale
Team morale is improved as the team experiences success in meeting timelines, as well as by not being swamped with rework. Team morale is further boosted as team members work together and see others actively participate throughout the project.

In summary, we increase overall quality as errors are discovered earlier, the timeline of the project is reduced, the morale of the team is boosted and the application meets clearly defined requirements more closely.

Eshan Chawla is Project Governance (PG) Practice Director at MDI. His focus continues to be around the IT Effectiveness and Governance areas. You may reach him at echawla@mdigroup.com.

Charlynn Helms expertise lies in managing process and coordinating diverse teams that enable development and management of the full software project life cycle. You may reach Charlynn at chelms@mdigroup.com.

References:
2. "SOA Raises The Stakes For Software Quality" by Carey Schwaber with Randy Hoffner and Megan Daniels of Forrester on Best Practices July 17, 2006

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**If you are a B2T Training student who has passed all three of our core course exams and would like to receive your BA Associate certificate, please contact certification.update@b2ttraining.com.**

After obtaining the BA Associate certificate, students are qualified to work toward BA Certified. BA Certified is an elite certification that recognizes individuals who possess proven skills, knowledge, and experience in eliciting, organizing, analyzing, documenting, communicating, and verifying requirements. Becoming BA Certified consists of earning the BA Associate certificate, possessing two years of business analysis experience, providing two professional references, and passing a final exam. The case-study-based final exam consists of developing sections of a requirements package and answering questions about the requirements.

*New!*

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**If you are a B2T Training student who has passed all three of our core course exams and would like to receive your BA Associate certificate, please contact certification.update@b2ttraining.com.**

For more information about our enhanced certification program visit our certification page at www.b2ttraining.com.

**New BA Certified**

We are pleased to highlight the latest individuals who have earned the title of BA Certified since the last issue of the bridge. To date, we have more than 3,000 people in our program, with over 200 who have completed and received certification. We have an additional 375 candidates who have obtained BA Associate and are in the final stage of the certification process. Individuals who are BA Certified have demonstrated knowledge and application of business analysis and we congratulate them on their success.

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B2T Training’s Course Alignment with the BABOK™

B2T Training’s program is a comprehensive program that aligns with all areas of the IIBA Body of Knowledge (BABOK™). While our advanced courses address some knowledge area subjects in more detail, the topics covered in our three core courses align with the BABOK and will prepare Business Analysts for both the B2T Training and IIBA certifications. The BABOK is a collection of business analysis tasks categorized into seven knowledge areas. The BABOK is not a methodology and does not infer any particular order of performing the activities. B2T Training’s program is taught in a series of courses that reflect the order of work and iterative nature of business analysis. The graphic below illustrates the alignment between the BABOK and B2T Training courses.

Business Analysts who have attended our three core courses, who have read the BABOK, and meet the application requirements, are prepared to sit for the Certified Business Analysis Professional (CBAP) exam. Visit the IIBA website (www.theiiba.org) for information about the CBAP certification.

Additionally, B2T Training is a Charter Member of the Endorsed Education Provider Program. The EEP program identifies training vendors whose programs support the IIBA mission and the BABOK. Being granted this honor reflects B2T Training’s commitment to a providing high-quality, up-to-date business analysis curriculum that meets IIBA standards and guidelines.

▶ If you have any questions please contact us at sales@b2ttraining.com.
lost in translation
Testing Terms for the Business Analyst

BY ANGIE PERRIS, PMP

IT WORKS! What else do you want to hear about testing?

As a Business Analyst—probably plenty. Recently I attended an IIBA™ chapter presentation about testing and I did not think there would be a lot of interest. I was wrong! BAs identified many questions and issues about “testing.” Animated conversations were flying and I wondered if some points were getting lost in translation because not everyone seemed to be speaking the same language.

People had different opinions about the role of a BA during testing. Some discussions lumped several different types of testing into a single activity. Terms like system testing and integration testing were defined differently depending on the organization. It was clear to me that not everyone, including me, understood enough about testing.

Although other team members (developers, QA analysts, users) are generally responsible for certain types of testing, a BA should understand basic testing terminology to communicate with all team members. BAs should be ready to assist in the testing process as needed. The more knowledgeable BAs are about each stage of testing and the associated deliverables, the more effective they can be. Some standard testing terms that you may want to have in your vocabulary are the following:

**Validation testing** - Activities that ensure the end product (or solution) of the project meets the needs of the business stakeholders. Anything that can improve the satisfaction of business needs is considered.

**Verification testing** - Activities that exercise the software product or solution to ensure it works as defined by the requirements.

**Unit Testing** - The objective of unit testing is to find problems in the smallest component of the system before testing the system in its entirety. This is usually performed by developers.

**Integration Testing** - This testing requires the individually tested “units” to be integrated together and tested as a larger unit or sub-system. This is usually performed by developers.

**System Testing** - This is the last chance for the project team to verify the product before turning it over to the users for their review. (Some refer to this activity as “functional testing.”) This is usually performed by a QA team or project team and includes other types of testing such as:

- **Regression Testing** - Retesting software after changes are made.
- **Performance Testing** - How fast does the system perform to complete a function?
- **Stress Testing** - Pushing the software to the limits in terms of number of users, number of transactions, rate of input, speed of response.
- **Security Testing** - Making sure that unauthorized users cannot gain access to the software and company assets.
- **Usability Testing** - Examining if the software is intuitive to its users.

**User Acceptance Testing** - The objective of this testing activity is to show compliance not to find bugs. This is performed by the system users. (See article page 3).

**Post-Implementation User Assessment** - This is an evaluation for the effectiveness of the software after it has been thoroughly used in the business area.

If you want to start some lively discussion in your company, mention some of these terms and find out what testing terminology is commonly used in your organization.

Looking for a speaker for your BA group or community of practice? Need a speaker for your next IIBA Chapter meeting?

As experts in business analysis, B2T Training has a passion for furthering the professional development of Business Analysts through sharing best practices, tips and techniques, and industry knowledge. B2T Training is often invited to speak at IIBA Chapter meetings, industry conferences (Upcoming Events, p. 16), and many corporations.

We understand the need for speaking topics to be educational and our presentations are delivered by Business Analysts. Following are just a few topics on which B2T Training has spoken:

- Effective User Acceptance Testing
- Presenting Requirements in a Cohesive and Consistent Manner
- Facilitating Requirements: Gathering Requirements in a Group Setting
- Why Does a Project Need a Project Manager and a Business Analyst?

For more details on these and other topics visit our “Downloads” page at www.b2ttraining.com.

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Using Questions to Improve Requirements Reviews

Did you know that requirements reviews will be much more effective when you give the reviewers some ideas of what to look for? It can be overwhelming to read a requirements package. When we give people specific questions on which to focus, it gives their reading a purpose and their feedback will be more specific. We have developed some questions that will help reviewers prepare for the review session. Feel free to use any of these questions as a starting point and then create some of your own to address specific project concerns. Our Requirements Validation course offers in-depth discussion on how to make reviews more effective.

General questions for any requirements review:
- Is the overall package cohesive? Do all of the sections in the package tie together? Review the table of contents.
- Do the definitions in the glossary clearly define terms as you understand them? Are the terms accurate as they relate to your job?
- Are the terms used consistently throughout the package?
- When words like "we" or "they" are used, is it clear to whom they are referring?
- Have measurements as they relate to this project been defined and documented accurately?

Questions about the project initiation (scope) section of a requirements package:
- Does the project statement of purpose clearly and concisely explain why we are working on this project?
- Are the project objectives accurate? Are they realistic? Are they aligned with corporate strategy and goals?
- Are the business risks accurately described? Do you agree with the probability, impact and risk response?
- Do you agree with the assumptions that have been documented? Are there others?
- Are all the external people, organizations, or systems who interact with the project defined? Are they truly external to the project?
- Does the document accurately reflect the exchange of information with the external stakeholders?
- Are there any other organizations or people with whom we communicate?
- Do the high level processes encompass all work performed within the scope of the project?
- Do you agree with the documented "items out of scope."
- Are all stakeholders documented?

Try giving your review participants a few questions before your next requirements review and see what happens!
EXPANDING TRADITIONAL VIEWS OF QUALITY:
The Pivotal Role of the Business Analyst

BY DARSHANA PATEL, VICE PRESIDENT, ONSITE PROJECT GOVERNANCE

Is your organization embarking on efforts to enhance the customer experience or quality of service? When it comes to quality, Business Analysts can bring a unique perspective. Beyond traditional quality metrics exists an untapped reservoir of vital measures that deeply affect project success and customer satisfaction.

A metric is a standard measure to assess performance. Metrics assess your ability to meet your customers’ needs and business objectives. Traditional quality metrics successfully measure and improve product defect rates. Most organizations are accomplished in their processes related to establishing, reporting, controlling, and refining quality measures, such as the number of defects identified in the project lifecycle, the number of post-production defects found, etc. These testing measures are vital to provide visibility into product and process quality and they often address quality from an internal viewpoint of the design, development, and deployment teams. There is an opportunity for the BA to extend quality metrics to include the customer’s perspective.

To gain a new view of software quality, put yourself in the role of your customer. Imagine that you are the one who participates from the business side in user requirements definition, acceptance testing, and rollout. Picture yourself working with the BA and Project Manager to create the vision of the application. It is through engaging with the system that defects surface and enhancement requests arise. You reap the benefits of the new software, you feel the challenges around missing functionality, and you experience the pain of critical defects. This application is vital to your day-to-day workflow and a problem with this system is a snag in your day. All quality aspects of reliability, availability, responsiveness, performance, security, and manageability affect your duties and your peace of mind. When you put yourself in the shoes of your customer, not only do you understand how vital quality is, but you begin to expand the definition of quality.

With this broadened view of quality, you may begin to see that the typical quality metrics you may be tracking function nicely for the creators and the Project Managers of the initiative, but may not necessarily address quality aspects from the customer’s perspective. To know what quality looks like to your customers, just ask them. In the early stages of the project, inquire “What does success look like to you on this project?” Ask “why?” three times for each of the aspects they communicate as important to success.

I once worked on an ideal project, properly supported by the executive level and staffed with strong project management, BAs, and quality assurance talents. We had realistic deadlines and full support to engage our customers to truly build a valuable solution. As a team, we decided to take creative advantage of our ideal situation and challenge the traditional methods of requirements gathering and establishing project metrics. What if we made quality our number one priority and slanted all dialogue with our customers to focus on this one significant aspect of success?

The result of this new approach was astounding. Our customers began to think about their customers. What was quality to them? What is truly important? The typical requirements gathering sessions turned into productive brainstorming sessions that yielded transformational results to the business. As we probed beyond the surface, we reached an untapped source of possible quality metrics that were critical to customer satisfaction.

As you engage in similar dialogue with your customers, you may begin to uncover such quality aspects as:

• Data quality, completeness, and accuracy.
• Timeliness and completeness of migration and decommissioning of parallel systems.
• Accuracy of upstream and downstream system integrations.
• Timeliness and completeness of system documentation and user guides.
• Timeliness and effectiveness of system training.
• Thoroughness and accuracy of support.

For each of the quality aspects you uncover, the next step is to establish the business value and prioritize them based on impact and feasibility. Next, identify associated quantitative and qualitative metrics and establish a consistent method to capture, track, and report on the measures and embed these into the project lifecycle. You are building quality metrics and statistics that make or break customer confidence in the application and in the teams that design, develop, and support the system. You become the voice of the customer and a true advocate of comprehensive quality and sustainable quality of service.

As organizations focus on continual process improvement and customer satisfaction, the BA plays a vital role in extending the traditional definitions of project quality to include new quality aspects that truly represent the customers’ views of quality. Standard quality metrics are still important, but an opportunity to expand the scope of quality is in the hands of the BA. ■

Darshana leads the Project Governance practice at OnSite, a division specializing in Project Management and Business Analysis. She is a recognized thought leader and requested speaker around Project Governance challenges and solutions.
The International Institute of Business Analysis (IIBA™) has launched the Certified Business Analysis Professional (CBAP™) certification program. The CBAP certification is targeted at senior business analysis professionals.

The CBAP is an important landmark in the business analysis profession, setting a formal, non-vendor issued certification that has not previously existed and assisting both business analysis professionals and organizations in demonstrating the core competencies required by the profession. CBAPs are recognized experts in identifying the business needs of an organization in order to determine business solutions.

CBAPs are acknowledged as competent individuals performing a role which is increasingly recognized as a vital component of any successful project.

This program has been carefully designed to be in compliance with the International Standards Organization (ISO) 17024 standard for certifying the competence of personnel.

Benefits to individuals acquiring and maintaining the CBAP certification include:
- Recognition of professional competence by professional peers and management
- Advanced career potential by creating a separate and distinct career path within the information technology industry and business community
- Demonstrated dedication to the business analysis profession

Benefits to organizations with CBAP-certified employees include:
- Confidence that they employ individuals with an advanced level of knowledge and qualifications
- Definitive, proven standards for their organization’s Business Analysts
- Reliable, quality requirements results with increased efficiency and consistency

Candidates are not required to be IIBA members in order to sit for the certification exam. To be certified, a candidate must meet all candidate requirements and pass a 150-question exam within a three and a half hour timeframe.

Candidate requirements are based on work experience, areas of expertise, education and professional development. References are also required. In addition, candidates must agree to follow a specified code of conduct. Once certified, CBAPs will also be required to meet ongoing re-certification requirements.

The exam is currently paper-based and is being offered at Business Analyst World events, including 12 offerings in 2007 in locations across Canada, U.S., England, and Australia.

The exam is available in English only at this time and is based on version 1.6 of the Business Analysis Body of Knowledge (BABOK™). The cost of certification is $450 USD for IIBA members and $575 USD for non-members.

Some IIBA chapters are offering study groups to prepare for the exam. These study groups are open to all potential candidates. A list of all IIBA chapters can be found on the IIBA website, www.theiiba.org in the “Chapters” section.

Visit the “Certification” section at www.theiiba.org for additional information about the Certified Business Analysis Professional program and the application process.

The International Institute of Business Analysis is an independent non-profit professional association serving the growing field of business analysis. The IIBA mission includes the development and maintenance of standards for the practice of business analysis and for the certification and recognition of its practitioners.

by Bill Hetzel

**REVIEWED BY BARBARA A. CARKENORD, PRESIDENT, B2T TRAINING, CBAP**

To endure in the IT field for more than a few years, a book must continue to offer guidance that is built on firm fundamentals and principals that are more lasting than simple rules about how to use technology. Dr. Hetzel’s *The Complete Guide to Software Testing* is one of these rare books. First published in 1984, its principals and recommendations continue to be relevant today. I still view it as the best text for introducing the concepts of quality software testing. The book is especially good for Business Analysts because it introduces the concepts of testing from a non-technical perspective and covers topics such as testing requirements documents, performing requirements reviews, and building a requirements validation matrix (traceability).

The book provides a self assessment tool to assess your organization’s test effectiveness. Based on the results of the assessment you will be able to determine the area in which you can most improve. Dr. Hetzel dedicates a chapter each to Testing through Reviews and Testing Requirements. This material recognizes the importance of having complete and accurate requirements. He also gives an excellent explanation of the common test phases (unit, integration, system) using the phrases “testing in the small” vs. “testing in the large.” There is a chapter on Testing Software Packages that recognizes our job is actually tougher when we purchase a package because we do not have the ability to perform “testing in the small” (unit and integration tests) and because we must answer three critical questions: 1) Does the package perform as advertised? 2) Does the package fulfill our requirements? and 3) Are we ready to install it?

Some of the examples and terminology are dated, but this does not decrease the important message contained in this book. Having clear, consistent, accurate requirements and validating them through reviews and tests is still the best way to ensure that our solutions satisfy the needs of our business stakeholders.

Barbara A. Carkenord, President, B2T Training, has worked in the requirements gathering and documentation field for over 20 years. She has conducted hundreds of seminars for Business Analysts. Comments are welcome at bcarkenord@b2ttraining.com.

**B2T TRAINING RATING: ★★★★★**

(scale is 1-4; 4 is the best)

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**Upcoming Business Analyst and Related Events**

- **April 24 - 27, 2007**
  Business Process Management Conference - Ft Lauderdale, FL - For more information visit www.sharedinsights.com/events/conferences

- **April 30 - May 3, 2007**
  Project Summit & BusinessAnalystWorld - Washington, DC - For more information visit www.businessanalystworld.com

- **June 19, 2007**
  BusinessAnalystWorld Symposium Series - Atlanta, GA - For more information visit www.businessanalystworld.com

- **June 19 - 22, 2007**
  Project World & World Congress for BAs - Boston, MA - For more information visit www.iirusa.com/projectworldregional

- **June 26, 2007**
  BusinessAnalystWorld Symposium Series - Minneapolis, MN - For more information visit www.businessanalystworld.com

- **June 28, 2007**
  BusinessAnalystWorld Symposium Series - Houston, TX - For more information visit www.businessanalystworld.com

- **October 6 - 9, 2007**
  PMI Global Congress North America - Atlanta, GA - For more information visit www.pmi.org

- **October 29 - November 1, 2007**
  Project Summit & BusinessAnalystWorld - Boston, MA - For more information visit www.businessanalystworld.com

- **November 12 - 15, 2007**
  Project Summit & Business Analyst World - Chicago, IL - For more information visit www.businessanalystworld.com

- **November 13 - 16, 2007**
  Project World & World Congress for BAs - Anaheim, CA - For more information visit www.iirusa.com/projectworld

- **Fall 2007 - Date TBD**
  Project Summit & BusinessAnalystWorld - San Francisco, CA - For more information visit www.businessanalystworld.com
Requirements Validation

This course takes you through the steps to ensure that business requirements are validated and that the solution is usable and meets the business needs. Validating requirements improves the likelihood of project success, making sure that we are building the right solution. The cost to correct a software defect may be as high as 2900 times the cost to correct a requirement. Finding missing requirements and requirements inconsistencies decreases the overall length and cost of the project.

Business Analysts must use risk assessments to prioritize requirements and requirements validation activities. The highest risk areas of the business must be addressed first. This course teaches Business Analysts to design efficient requirements validation tests to make the best use of limited resources and time.

Solution Assessment and Validation is one of the key knowledge areas in the BABOK™. This course addresses many of the important tasks in the knowledge area and equips Business Analysts to design efficient and effective tests to demonstrate that the application solutions meet their user’s needs.

Course Outline

Introduction
• What are requirements?
• Why do we validate requirements?
• How do we validate requirements?
• When should requirements be validated?
• Who validates requirements?

Validating and Testing Requirements
• What does it mean to validate requirements?
  ◦ Conducting effective requirements reviews
    • Review project scope
    • Review business requirements
    • Walkthrough workflows
    • Review functional requirements
    • Review technical specifications
  ◦ Usability testing
  ◦ User acceptance testing
  ◦ Post implementation user assessment
• What does it mean to verify requirements?
  ◦ Unit testing
  ◦ Integration testing
  ◦ Systems testing
• Understanding the importance of various types of testing. Which types apply to your project?
  ◦ Does the software support the business area needs?
  ◦ Does the user interface perform properly?

  ◦ Does the system perform as required? Can it handle the volumes needed to support the business?
  ◦ Does the system interface properly with other business systems?
  ◦ Is it secure?
  ◦ Is it technically accurate?
  ◦ Regression testing - why must we re-test?
• How to correct problems that are discovered during requirements validation?
  ◦ Use a consistent defect reporting procedure
  ◦ Track defect types to improve requirements on future projects
  ◦ Assess defect type, severity, and status

Usability Testing
• Learn the principles of usability
• Learn how usability testing differs from traditional testing
• Discuss methods of usability testing
• Learn to use requirements to design usability tests
• Workshop: conduct a usability test

Working with IT Stakeholders
• Communicating with IT developer stakeholders
  ◦ Testing environments
  ◦ Common IT testing methods
• Leveraging QA stakeholders

New!

2 Days

Intended Audience
This course is designed for Business Analysts or anyone interested in improving and validating the quality of their requirements.

Prerequisites
We recommend that the Business Analyst has already attended our 3 core courses (or at a minimum Detailing Process and Business Rule Requirements) before enrolling for this course.
Tips for Conducting Requirements Reviews

**Question:** Questions about my requirements package come up during development and QA testing, even after the project team has reviewed the package. Do you have tips for conducting requirements reviews that may help eliminate questions late in the project?

**Answer:** No matter how well your requirements are reviewed, questions will still arise, but here is an approach for a formal requirements review that will help eliminate major issues being discovered late in the project.

A formal requirements review must be conducted in the following manner:

1. Schedule time with participants
2. Deliver review materials ahead of time
3. Request that the participants review the materials prior to the session
4. Conduct review session
5. Record review session notes
6. Update requirements package
7. Conduct second review session if necessary

A formal review has two major advantages over an informal review:

1. Each requirement is discussed to ensure consistent interpretation of each requirement by the team. Don’t just ask if anyone has any questions, be more specific. There may not be many questions from the team because everyone believes they understand the requirements. However, this does not ensure that everyone on the team has the same understanding of each requirement.
2. Notes are recorded in a consistent manner to help teams reduce the reoccurrence of defects in future requirements packages. This will improve the quality of the requirements package over time.

A formal review will take longer than an informal review, but it is cheaper to discover and resolve issues earlier in a project than later. Take some extra time to make sure all parties are truly in agreement with the requirements before the solution is being designed and implemented. Over time, the quality of the requirements package should improve, reducing the time to conduct the requirements review.

Send your questions to Ask the Experts at sales@b2ttraining.com.

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**Course Outline continued**

- Software quality assurance (SQA) planning and structure
- Utilizing SQA personnel throughout the SDLC

**Documenting Requirements Validation Deliverables**

- Designing a requirements validation plan
  - Planning considerations:
    - Who will validate requirements?
    - How will this be accomplished?
    - Where are the highest risks?
    - Where will tests be conducted?
    - Who will conduct testing?
    - Who will review test results?
    - What test data will be used?
  - Using standard documentation templates to detail the plan
    - What is the IEEE? Why is this organization important to Business Analysts?
    - What is a test case? What is a test procedure?
    - Identifying tests from requirements documentation

- Using Use Case descriptions to develop testing procedures
- Workshop: validating requirements using test cases
- Cross checking solution to requirements - requirements traceability

**Solution Assessment and Validation BABOK Knowledge Area**

- Understanding the tasks in the IIBA BABOK - Solution Assessment and Validation
  - Develop alternate solutions
  - Ensure the usability of the solution
  - Support the QA process
  - Support the implementation/deployment of the solution
  - Communicate the solution impacts

For more information on this course visit www.b2ttraining.com
certified core courses

**Essential Skills for the Business Analyst**

A Business Analyst acts as a liaison between business people who have a business problem and technology people who know how to create solutions. A Business Analyst's main responsibility is to elicit, detail, and document requirements in a format that is useful to their business stakeholders and the technical developers.

This course covers the critical skills for Business Analysts and is appropriate for new and/or experienced Business Analysts. New Business Analysts will learn the tasks they are expected to perform and why each task is important. Experienced Business Analysts will learn new techniques and more structured approaches to improve their requirements development activities.

Earn 28 IIBA CDUs and PMI PDUs

**Detailing Business Data Requirements**

Understanding and documenting business data requirements is a critical component in defining complete requirements. Every process uses data and almost all business rules are enforced by data. Missing a critical piece of data or incorrectly defining a data element contributes to the majority of maintenance problems and results in systems that do not reflect the business needs. This course teaches students an in-depth approach to identify and define all necessary data components using both textual templates and an entity relationship diagram.

Earn 21 IIBA CDUs and PMI PDUs

**Detailing Process and Business Rule Requirements**

This course continues the development of the requirements package by defining the processes and business rules for the project. Business Analysts are expected to analyze and understand business problems and be able to make recommendations to help the business stakeholders solve problems. The most effective approach to ensure success is to understand the business environment and document the business requirements, and then use functional requirements to document how software automation can support the business.

Functional requirements document how the software should “behave.” These requirements must specify how users will interact with the software and how the software will respond. Business Analysts are uniquely qualified to document these requirements because of their understanding of the business needs and the user's work environment. These requirements will be used to articulate the technology needs of a quality software application that will meet the business needs.

Earn 28 IIBA CDUs and PMI PDUs

For more information on these courses visit www.b2ttraining.com.
In this course Business Analysts will learn to:
• Scope the project from the Business Analyst’s perspective.
• Identify and gather the requirements that are critical to the business mission.
• Learn how to ask the right questions.
• Identify the five core requirements components.
• Know when a requirement is excellent.
• Plan an approach for documenting, categorizing, and packaging requirements.
• Verify that requirements are testable and generate testing objectives.
• Conduct a requirements review.
• Elicit requirements in a group setting.

In this course Business Analysts will learn to:
• Identify core data requirements beginning with project initiation.
• Identify excellent data requirements at the appropriate level of detail.
• Identify and detail attributive, associative, and subtype and supertype entities.
• Detail complex data related business rules.
• Discriminate between Business Data (Logical Data) and Database Design (Physical Data).
• Transition business data to database design.
• Utilize easy normalization techniques (without all the mathematical theory).
• Validate data requirements with activity (process or use case) requirements.

In this course Business Analysts will learn to:
• Understand and document the business environment using a suggested structure, including detailed templates for defining the business and functional requirements for processes and business rules.
• Look beyond the current technology or procedures to discover the true nature of the business activity.
• Ask the right questions to identify the core business processes and the business rules that control or guide them.
• Document functional requirements which describe how the software should “behave.”
• Utilize several diagrams including the decomposition diagram, Use Case diagram, and workflow diagrams.
• Look at the business area from an objective perspective after business requirements are documented and organized to present alternative design solutions that meet the customer needs.
• Validate business processes against data requirements.
advanced and specialized courses

Facilitating Requirements for Business Analysis
This course teaches students to plan and conduct a facilitated session to gather business and functional requirements. The art of bringing people together to elicit requirements and gain consensus on solutions is a critical success factor for all BAs. The workshops in this course ensure students have the opportunity to conduct a requirements elicitation session for one project deliverable and to play each of the key roles in at least one session. This class is limited to 8 students and over 60% of the class time is spent on interactive, real-world business case study facilitated sessions.

Earn 21 IIBA CDUs

Requirements Validation
This course takes the Business Analyst through the steps that ensure business requirements are validated and that the solution is usable and meets the business needs. Business Analysts will learn to design efficient requirements validation tests to make the best use of limited resources and time. This course addresses many of the important tasks in the BABOK™ knowledge area Solution Assessment and Validation and equips Business Analysts to design efficient and effective tests to demonstrate that the application solutions meet their user’s needs.

Earn 14 IIBA CDUs

Advanced Business Analysis Techniques
This course enhances the efficiency and effectiveness of Business Analysts by giving them additional techniques and strategies for gathering, documenting, and reviewing requirements. Techniques such as advanced data definition, traceability, and gap analysis help Business Analysts to document more accurate and complete requirements. The course also presents the concept of requirements management and requirements reuse. Implementing a requirements management process into your organization can significantly reduce the time required to make software changes and develop software interfaces.

Earn 21 IIBA CDUs

For more information on these courses visit www.b2ttraining.com.
management/technical seminars

Overview of Business Analysis

This seminar presents the Business Analyst role to managers and others who lead and work with Business Analysts. In order for the Business Analyst to be successful, both the IT and business community must embrace the business analysis process. The seminar can be used as a working session to discuss how your organization will implement the business analysis process and approaches for documenting the requirements.

Developer’s Introduction to Business Analysis

This class provides an overview of the Business Analyst role and a detailed review of the requirements document provided to the development team. To ensure an integrated team, IT developers need to understand the role of the Business Analyst. They should also be familiar with the requirements that Business Analysts are gathering and documenting. This includes understanding categories of requirements, the core requirement components, and the documentation formats used for each type of requirement. IT team members must also understand the testing life cycle and the personnel involved. This course gives students an overview of the role of the Business Analyst, requirements documentation, and software testing.

For more information on these courses visit www.b2ttraining.com.
2007 public class schedule

**Essential Skills for the Business Analyst**
$2,195 per student
- Apr 16 - Apr 19, 2007 San Diego, CA
- May 7 - May 10, 2007 Seattle, WA
- May 21 - May 24, 2007 Atlanta, GA
- Jun 11 - Jun 14, 2007 Houston, TX
- Aug 20 - Aug 23, 2007 Atlanta, GA
- Sep 10 - Sep 13, 2007 Houston, TX
- Sep 17 - Sep 20, 2007 Chicago, IL
- Oct 1 - Oct 4, 2007 Atlanta, GA
- Oct 15 - Oct 18, 2007 Dallas, TX
- Nov 5 - Nov 8, 2007 Atlanta, GA
- Nov 12 - Nov 15, 2007 New York, NY
- Dec 3 - Dec 6, 2007 San Diego, CA
- Dec 10 - Dec 13, 2007 Louisville, KY

**Facilitating Requirements for Business Analysis**
$1,795 per student
- Apr 23 - Apr 25, 2007 Atlanta, GA
- Jul 16 - Jul 18, 2007 Houston, TX

**Detailing Business Data Requirements**
$1,795 per student
- Apr 10 - Apr 12, 2007 Houston, TX
- Apr 30 - May 2, 2007 Atlanta, GA
- Apr 30 - May 2, 2007 Dallas, TX
- May 7 - May 9, 2007 Chicago, IL
- May 21 - May 23, 2007 Louisville, KY
- Jun 4 - Jun 6, 2007 Seattle, WA
- Jun 25 - Jun 27, 2007 New York, NY
- Jul 16 - Jul 18, 2007 San Diego, CA
- Sep 17 - Sep 20, 2007 Seattle, WA
- Oct 15 - Oct 17, 2007 Atlanta, GA

**Detailing Process and Business Rule Requirements**
$2,195 per student
- Apr 16 - Apr 19, 2007 Chicago, IL
- Apr 23 - Apr 26, 2007 Anchorage, AK
- Jun 4 - Jun 7, 2007 Houston, TX
- Jul 9 - Jul 12, 2007 Dallas, TX
- Jul 16 - Jul 19, 2007 Atlanta, GA
- Aug 6 - Aug 9, 2007 Chicago, IL
- Sep 17 - Sep 20, 2007 Louisville, KY
- Oct 1 - Oct 4, 2007 New York, NY
- Oct 15 - Oct 18, 2007 Seattle, WA
- Nov 5 - Nov 8, 2007 San Diego, CA
- Nov 12 - Nov 15, 2007 Houston, TX
- Nov 27 - Nov 30, 2007 Atlanta, GA

**Requirements Validation**
$1,395 per student
- May 21 - May 22, 2007 Anchorage, AK
- Jun 11 - Jun 12, 2007 Atlanta, GA
- Jul 10 - Jul 11, 2007 Louisville, KY
- Aug 6 - Aug 7, 2007 New York, NY
- Sep 17 - Sep 18, 2007 Houston, TX
- Oct 15 - Oct 16, 2007 Atlanta, GA

**Advanced Business Analysis Techniques**
$1,795 per student
- Jul 16 - Jul 18, 2007 Houston, TX

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2. When groups of 3 or more employees from the same company register and pay for one course.

Pricing and dates may change. Please check our website for the latest information and to register - www.b2ttraining.com. Onsite classes are also available.