

# OFFSHORE DEVELOPMENT

## Successful Co-Development and Continuous Support Project

### Case Study

Domain: Analytical Instrumentation

Type: Offshore Development

*“Bioanalytical software for drug discovery and life science research including microplate data acquisition, analysis, graphing and reporting.”*

Co-development approach followed between B.A.T. and Client to setup the project

An iterative project primarily intended to carry out enhancements and bug fixing of a large software product. B.A.T. offshore team integrated with Client team for product development and Release.

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#### Challenge

- Capture the knowledge of an on-going project and its code base: To become extremely trustworthy External Co-Development partner
- To establish necessary understanding on application for instrumentation-small molecule domain
- To adopt and implement **Agile software development processes** with two geographical locations dividing the team

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#### Solution

- Setup a successfully running model for an ongoing project- B.A.T. provided **New Feature Development, Enhancement and Sustenance Support** for the Project

## Delivering The Solution:

Client approached B.A.T. for assistance. B.A.T. team assessed the exact requirement of the client and decided to follow “**B.A.T. Agile Process**” which was similar to the XP Process followed by the client. This handled very well client’s immediate and expected future needs.

B.A.T. is equipped with Multidisciplinary skills; the experts of different streams required for the project were involved in the process of software development for accurate and professional delivery. B.A.T. worked closely with the client for perfect and timely delivery. The team included Domain experts, software developers, software testers etc.

Correct understanding of the application, the core software and end-user perspective is extremely critical to provide appropriated solutions, consequently B.A.T. handled this entire process very smoothly and professionally which was well appreciated by the client.

Proper configuration and setup including Instruments specific to this project were duly taken care by B.A.T. to replicate the similar work environment at client’s location

## Assessing The Solution:

The client is a leading global manufacturer and supplier from North America, who manufactures life sciences tools along with software. The client offers proven market leadership in mass spectrometry and molecular devices that sets the gold standard for high-performance bioanalytical measurement systems.

B.A.T. assiduously assessed the requirements of the client and recommended a solution of new feature development, enhancement and sustenance support. This was completely client driven project which included explicitly co-development.

The customer being a leading global name in the field of drug discovery, B.A.T. had to ensure that robustness and quality of the development adhering their existing stringent standards.

The important feature of this Project was Extreme Programming/ XP programming. This works by bringing the whole team together, following simple practices, with enough feedback to enable the team to see where they are and to tune the practices to their unique situation. Few of the key aspects of XP methodology are Domain driven design, simple and flexible code, refactoring of code and stories, test driven development and pair programming.

## Methodology:

An imperative element of this project was the commendable methodology. This entire process from receipt of work pack to the final delivery was handled vigilantly and professionally. This process comprised of four important stages and which followed stringent work pattern for the team.

### Stage 1- Definition and Details of features to be developed

Right from the initial stage B.A.T. domain specialist were highly involved in the project. Starting from feature and work pack definition and then converting these definitions to stories which were received from the client. All these were duly assigned in the team.

### Stage 2- Requirement Analysis

At this stage B.A.T. team prepared detailed analysis of the stories and test received from the client. It included Daily stand ups, Iteration sheet meetings, planning and scheduling stories for implementation

## Key Technologies:

- WPF C#.net windows based application
- Framework 3.5
- Development done in an XP environment
- Project developed using XP process
- Testing covered regression, automated, story testing
- Testing on Instruments (acquisition testing)



**Stage 3- Implementation**

For the quality and remarkable delivery, this stage included Pair Programming, Regression and extensive Testing, etc.

**Stage 4- Testing**

Various software testing methodologies were followed at this stage viz. Regression, Automated, Story testing, Functional and Analytical

**Stage 5- Delivery**

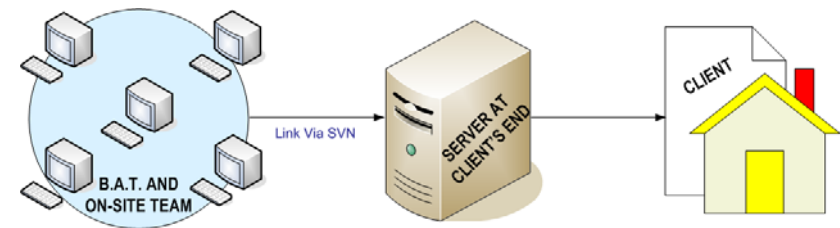
There is continuous delivery of the feature as and when it is developed and tested. After every feature checked in a new build is generated at client's Build server via SVN.

**Expertise Shared:**

This project was exclusively a Client Driven Project for New Feature Development, Enhancement and Sustenance Support. The client approached B.A.T. to share its ongoing expertise in project with the predefined parameters.

**B.A.T. worked as an external co-development team jointly with the Client team for an on-going project with activities like:**

- ✓ New feature development
- ✓ Bug fixing features
- ✓ Re-factoring and developing fixtures for unit testing
- ✓ Functional testing



B.A.T. has always believed in close work environment. There was incessant communication with the on-site team to complete the work as per the requirement. Complete knowledge of Domain, External Co-Development capabilities and excellent project management made B.A.T. to deliver the New Feature Development, Enhancement and Sustenance Support for the Project.

**Trust In B.A.T.:**

Successful completion of this project gained the confidence of the client in B.A.T. Trusting the potential of B.A.T.; client showed the interest for B.A.T. to work on its future project with enhanced responsibilities.

Client has shown a deep interest in associating with B.A.T. as an external co-development team **to handle development and testing independently for the next release** with activities like:

- ✓ Develop user specific solutions- software customization
- ✓ Develop new features to the existing software for better productivity and efficiency

**Benefits:**

- Act as an extended arm on requirement basis.
- B.A.T. successfully accomplished all the requirements of the client as per the plan.
- Availability of multidisciplinary skills at B.A.T. made the process much faster and smoother.
- Excellent team, Domain expertise, knowledge of industry vertical helped B.A.T. to perform exceptionally well in this project.
- Reduced development cost at client's end.