

Enterprise Application Development Services



Customized Development Solutions

Cost-effective and high quality solutions to meet your business needs

Table of Contents

Introduction	3
Why LaserBeam Software	5
The LaserBeam Model	6
Discovery Phase	6
Project Initiation	7
Project Implementation	7
Scope Change & Control	7
Sample Project Organization	8
Responsibility Matrix	9
Appendix A- The Honeycomb Software Delivery Model	10
Assessment Phase	10
Requirements Gathering Phase	11
Build/Development Phase	11
Testing Phase	12
Implementation Phase	13
Support & Maintenance Phase	13
Appendix B- Project Management Methodology	14
Project Planning	14
Project Tracking & Control	15
Project Closure	15
Appendix C- The Laserbeam Team	16

In today's complex business environment, business process outsourcing is essential to keep a competitive edge. Outsourcing software development and IT projects enables businesses to dramatically reduce costs, optimize assets, develop new services quickly, and minimize risks. By sharing the load with the right partner, companies can concentrate on their strategic targets.

Offshore outsourcing is reliable: leaders of the global IT industries, like Microsoft, HP, and IBM, all fully employ the advantages of outsourcing and have moved considerable parts of their development to offshore companies.

And while organizations are faced with a wealth of offshore options, selecting the right service can be tricky. At Laserbeam Software, our combination of experience, focus, and flexibility makes us an ideal choice for companies looking to lower their costs while retaining control over the critical components of their IT support.

IN AN INDUSTRY FLOODED WITH OPTIONS, HOW DO YOU KNOW WHICH SERVICE PARTNER IS RIGHT FOR YOU?

With Laserbeam Software, you get an experienced partner with a broad portfolio that can tailor a solution to meet your specific business needs. We adapt to each individual situation, providing optimal value and enabling you to focus on your strategic goals. With our proven development methodology, we guarantee a high level of technical expertise and high quality deliverables.

The Laserbeam Software Snapshot

California-based company providing custom offshore development services built to your specifications

Project planning, business analysis, design and development, and implementation services

Experienced in successful management and delivery of large scale solutions

We take the time to understand the complexities of your business to find the optimal solution for your needs

Our philosophy: low cost does not mean low quality



Laserbeam Software: Your partner for development

**Flexibility is the key
to success**

We focus on providing the best possible service at the lowest possible cost. That's easy to say, but we back up that claim with a well-defined process that allows us to easily customize solutions for your needs. Extreme flexibility is the key to our success.

**Strength from
experience**

Our strength is in Enterprise Application Development, Integration, and Testing. We have experience developing, testing, and operating enterprise applications for Fortune 500 companies. We utilize that experience in every aspect of our delivery model, from applying standard project management disciplines to operational excellence.

**Ensuring your
independence**

We design software solutions with the end result in mind. Our vast experience in the entire development lifecycle results in high quality and efficient solutions that can be fully supported by your own staff. Although we can provide ongoing support, we believe the best end result ensures your independence. With Laserbeam Software, you can be confident that all deliverables will be fully documented, as well as provide well-designed error-generation outputs.

**There's no one size
fits all approach**

Why pay for something you don't need? Our first step is to properly define roles and responsibilities to best achieve your goals. You may prefer to use your own resources for business analysis, technical design, or testing. Your needs might entail a 2-month effort to rewrite an outdated application with minimal structure. Or, it could require a 12-month effort to develop a new enterprise application with significant upstream and downstream implications.

**Comprehensive project
management- without
an army of consultants**

Our methodology encompasses scope definition, business analysis, technical design, implementation strategies, as well as project management strategies. However, we won't show up with an army of expensive consultants. We assign a single onshore Professional Services Manager whose role is to manage the relationship, shepherd the project, define the optimal solution, and provide regular status updates and communications. This balance ensures clear and timely communication, while offering the most cost-effective use of resources.

Why Laserbeam Software?

Our principles have a successful track record of large scale Enterprise Application implementations.

- We've designed, built, and supported an Operational Data Store which combined the data from over a dozen different systems into a single delivery warehouse. This ODS serves as the "single version of truth," supplying data to hundreds of downstream applications.

- Full development and operation of dozen of enterprise applications, both client/server and Internet-based, which have stood the test of time for *usability, stability, and scalability*.

- We've successfully delivered and managed large-scale, as well as quick-hit, solutions covering everything from Infrastructure and Network to application development and support. We know what it takes to bring a new application from concept to reality.

We will never overreach in order to capture a sale.

As an emerging company with big plans, we are eager to please. However, we know our limitations and will carefully analyze each situation to ensure that we can properly fit your needs.

We are a US company with an Indian affiliate.

Laserbeam Software is based in the San Francisco bay area. Our US corporate services include: business analysis, project management, onsite management, and the direct coordination with our offshore team.

Our Indian office is based in Chennai and is managed by our Chief Technology Officer. As one of Laserbeam Software's co-founders, the CTO is responsible for the overall design, sizing, development, and testing of all products.

We do not issue 1b Visas for any of our US employees. All employees of Laserbeam Software, LLC are US citizens.

We know how to make an offshore model work.

We have worked on both sides of an offshore arrangement for several years and understand the process from both the customer and provider's perspectives.

Our experience has driven our model. We believe that some areas are best left in the hands of our customers. We work closely with each client to determine the right combination of services to maximize success.

Proven expertise in the successful management and delivery of large scale solutions



I. The Discovery Phase

We meet with you to properly assess your goals before beginning to contract to do the work. Before starting, we recommend initiating a mutual Non-Disclosure Agreement (NDA) to protect the confidentiality of your information.

I.1 Initial Review

- ▶ Have you already defined your requirements? Do you need us to do that or will you use in-house staff?
- ▶ What is the purpose of the application?
- ▶ Who is the audience?
- ▶ How many users will there be? What will their roles be?
- ▶ Will the application be integrating with other applications?
- ▶ What are your timeframes for delivery?
- ▶ What is the makeup of your IT staff? Who will we be working with and in what roles?
- ▶ What is the process of initiating a contract? Will a separate department, like Purchasing or Legal, need to be involved early in the process?

I.2 Development of a Scope Definition and Responsibilities Matrix

Based on the initial meeting, we provide a “back-of-the-napkin” sizing that includes: any assumptions of the work described, delivery time estimates, as well as high-level estimates of costs for delivery.

The scope of the work will be defined by the overall size of the initiative and whether it requires a full project management approach or some modified combination which best achieves a reasonable strategy.

A Responsibilities Matrix will be proposed, based on the initial review, which identifies the key responsibilities of both parties to ensure a mutual understanding.

WE FIRST DETERMINE YOUR NEEDS AND DEVELOP A CUSTOMIZED APPROACH THAT BEST FITS YOUR SITUATION

I.3 Development of a Detailed Sizing

Once the scope document has been reviewed and agreed upon, we will develop a detailed sizing of the project. Depending on the existence of complete business requirements, this sizing will either be provided as an estimate in advance of the SOW (Statement of Work) or will become part of the SOW itself.

I.4 Development of a Statement of Work (SOW) and Master Services Agreement (MSA)

We provide a Master Services Agreement (MSA) for all projects, regardless of size in order to protect mutual interests. Our MSA is based on industry best practices and is inherently designed to assure you that we are the best solutions provider for your needs. Should any provision of the MSA be cause for concern, we will gladly negotiate a reasonable compromise.

The Statement of Work contains specific details, which have been negotiated in advance, regarding our deliverables, assumptions, schedule, and cost.

2. Project Initiation Phase

We begin working immediately upon signing the SOW and MSA, as well as receipt of a down payment, if required.

The project now proceeds according to the defined scope and responsibilities of the contract. Larger projects may contain all or some of the deliverables defined in the Implementation Methodologies. Smaller projects may involve only a subset of the components described in that section. These examples are provided as a guide, but the actual methodology used for each project will be defined and agreed to in the SOW.

3. Project Implementation Phase

We have developed our own unique development method that works best for us. It is a combination of Rapid Application Development (RAD) and standard Information Engineering Methodologies (IEM). From experience, we know that no single approach works perfectly with all types of projects. IEM methods may have the lowest overall risk and can be well-suited for ERP applications, like payroll, and other large-scale applications. However, these methods can be burdensome in terms of expense, staffing, and time for the vast majority of applications developed for a specific use. On the other hand, RAD methods emphasize speed, but not without compromising the satisfaction of business requirements.

Therefore, we've developed and use the Honeycomb Methodology that provides an ideal balance between *solid change control* and *rapid cycle times*. See Appendix A for more information on our methodology.

4. Scope Change Control Process

Throughout the project, we use a standard control process to manage all changes. The project team carefully considers the impact any change request may have on the scope of the project.

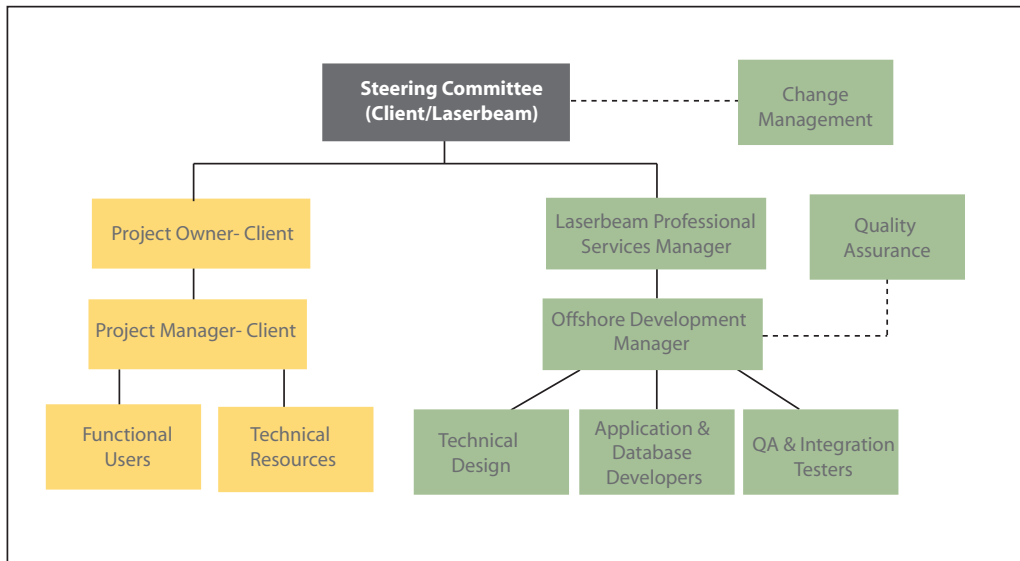
Project Phases	Duration (weeks)	DESIGN		BUILD		TEST	
		1	2	3	4	5	6
Initial Review/Contract	3	✓					
Business Analysis	3	✓	✓				
Technical Design	3		✓				
Development/ Unit Testing	8		✓	✓	✓		
Integration Testing	3				✓		
User Acceptance Testing	3					✓	
Cutover to Production	1						✓
TOTAL	26 weeks						

LASERBEAM ADHERES TO STANDARD PROJECT AND DEVELOPMENT LIFECYCLE DISCIPLINES WITHIN THE DEFINED SCOPE OF ANY PROJECT

**Sample Implementation Schedule
(6 month project)**

Sample Project Organization

We structure our software team as needed to effectively complete the project. Close interaction with our clients ensures project success. The exact organization depends on the scope or nature of the project, but a sample structure is outlined below.



Sample Project Organization

Responsibility Matrix

The following table outlines a typical division of labor between Laserbeam and clients. It also provides the activities and deliverables commonly associated with each phase.

Phase	Activities	Execution/ Deployment of Resources	
		Laserbeam	Client
Phase 1			
Assessment	Project Definition	✓	✓
	Develop scope & responsibilities	✓	✓
	SOW	✓	
	MSA	✓	✓
	Deliverables	Project Plan, Responsibility Matrix, High Level Sizing	
Phase 2			
Analysis	Detailed Requirements	✓	✓
	Traceability Matrix	✓	
	Deliverables	Business Requirements Document (BRD), Traceability Matrix	
Phase 3			
Project Planning	Project Plan	✓	✓
	Approach Document	✓	
	Deliverables	Project Plan & Approach Document	
Phase 4			
Solution Design	Functional Design Document	✓	
	Technical Design Document	✓	
	ERD Diagrams	✓	
	Deliverables	FDD, TDD, ERD	
Phase 5			
Development	Development solution	✓	
	Unit test solution	✓	
	Weekly progress reports	✓	
	Internal QA	✓	
	Deliverables	TDD Revisions, Unit test scripts, Progress report	
Phase 6			
Test	Test Plan Preparation	✓	
	Prepare test scenarios & test data	✓	✓
	Unit Testing	✓	
	Integration Testing	✓	✓
	Performance Testing	✓	✓
	Deliverables	Test Case Matrix, Test Scripts, Error Logs	
Phase 7			
User Acceptance	Use Case Scenarios		✓
	User Acceptance Test Scripts	✓	✓
	Test Management	✓	✓
	Deliverables	Use Case Scenarios, UAT Scripts	
Phase 8			
Deploy	Systems Administration Training	✓	
	Data Migration		✓
	Back-up & Recovery Strategy		✓
	Go Live	✓	✓
	Production Support	✓	✓
	Deliverables	Sys. Admin Manual, Production Runbook	

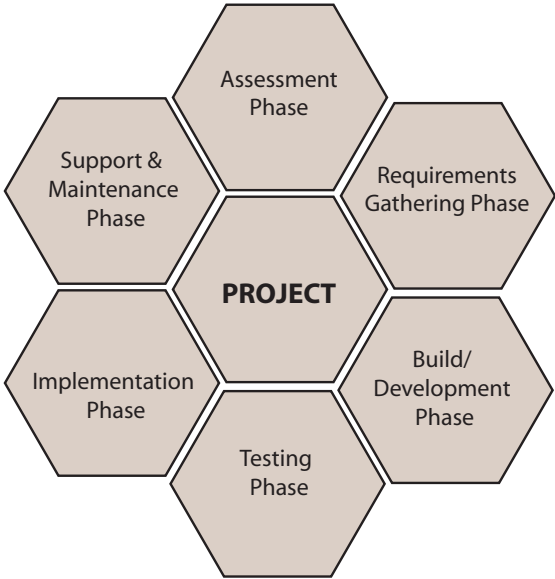
A defined, repeatable process is fundamental to any successful software development. Within the software industry, different schools of thought have defined two methodologies. While diametrically opposite, they both have produced outstanding results.

The tried and true Information Engineering Methodology (IEM) is a rigorous architectural approach to planning, analyzing, and implementing applications within an enterprise. Within the IEM, the enterprise thoroughly analyzes its information requirements before beginning to build any applications. This method is well-suited for large-scale projects like those deployed by ERP vendors. However, development can be cumbersome and requires significant overhead.

Sitting at the other end of the spectrum is Rapid Application Development (RAD). As the name implies, this method emphasizes speed. Simply put, RAD places delivery time above a zero-defect result. The strategy is to build it quickly and address any problems and bugs in version 2.0. While time-to-market is critical, the Enterprise market's expectations for high quality typically make this approach unacceptable.

Through years of experience, we've determined that in order for us to meet client expectations for time and cost, without compromising quality, we would need to develop our own methodology. While it may not be inherently unique, this methodology is invaluable by allowing us to adjust to a wide range of client needs, while providing a formal framework to effectively manage customized service delivery.

We termed it the Honeycomb Software Delivery Model.



The Honeycomb Model

THE HONEYCOMB MODEL ENABLES US TO MEET CLIENT EXPECTATIONS FOR TIME AND COST, WITHOUT COMPROMISING QUALITY

Assessment Phase

Understanding the business imperative: Whether it is supporting a new market, systematizing a cumbersome process, or gaining insight into an existing process, there is always an underlying business imperative. By understanding what our client is trying to achieve, we can work together to best achieve this goal.

Understanding the current area of pain: We also seek to clearly understand the current pain, be it a broken process or limitations in the current system. This way we're sure to develop creative solutions to put these issues and limitations squarely in the past.

Understanding the people: Systems are used by people, not other systems. We seek to gain an understanding of the end users, support personnel, and other stakeholders in the system.

Assessment Phase, contd.

Understanding the process: We try to understand the framework in which the software will be deployed, in order to prevent disruption and ensure software acceptance. Wherever possible, a new system should be designed to support working processes or to improve dysfunctional ones.

Tools and technologies: We look to take advantage of the client's current infrastructure to minimize cost, complexity of deployment, and support staff resources. It is also critical to understand the upstream and downstream touch points to ensure compatibility.

Building relationships: The foundation of any successful project is developing a close relationship with our client stakeholders. By earning their trust, we can be confident in making recommendations that are in their best interest.

Requirements Gathering Phase

Scope Definition: We define the project alongside our client and clearly and properly document the scope definition. This practice minimizes time-consuming misunderstandings and results in happy clients.

Strategize: We strategize to provide the optimal solution that meets the requirements and stays within the given resources of time and money.

Value-added services: We don't add value by simply taking orders. We leverage our experience and examine the big picture to think of creative alternatives that solve our client's actual needs.

Articulate tools and technologies: We make sure we have all the right tools and infrastructure before undertaking a project.

Detailed design: We develop a formal Business Requirements Document (BRD), which forms the foundation of all ensuing work. The BRD is developed in collaboration with the client and reviewed before any substantive development takes place.

Traceability matrix: The traceability matrix is built from the BRD and serves as a guide throughout the development, testing, and implementation cycles to confirm that the final solution contains all requirements.

Build/ Development Phase

Screen Design: Since the look and feel of the User Interface (UI) often drives much of the development cycle, we attack this first. For newly designed applications, we will develop the screens as early as possible and review them with the client in storyboard fashion. This gives our clients control over the process early on and prevents costly misunderstandings late in the project.

Technical Design Documentation (TDD): We present the technical architecture by articulating the logic, such as Forms and Objects, that will be used to build the solution. The TDD is constantly revised during build and test cycles.

Database Design: We develop robust databases that support rapid cycle times, performance expectations, and scalability.

Validation and exception handling: Building a system with good controls starts with the fundamental design. All too often, we've seen Enterprise Software Vendors overlook this crucial step. We understand that the most impressive UI is useless without good validation and exception handling procedures. After all, once deployed, our clients must support the application.

Re-usable components: Wherever possible, we make use of components that have already been built and tested. This benefits everyone by minimizing cost, development, and testing.

Custom components: Early in the build cycle, we identify wherever custom components need to be developed to ensure that we stay on plan.

Testing Phase

Employ best practices: Testing is the most important cycle in the process and yet many software vendors fall short in this area. We follow a formal testing methodology that employs the industry's best practices.

Module level testing (Unit testing): This is a constant process throughout development to test each module as it's completed. While many software vendors have the developer test, we require team members to test each other's work to gain a fresh perspective on what the module does and how it meets requirements.

Module migration integration: As modules are completed, we employ early integration testing to minimize incompatibilities down the line.

Module integration: This is the preparatory phase for Systems Integration Testing (SIT). We verify that each part works together as a whole before handing it off to the testing team. Our philosophy is that SIT is for executing scripts, not troubleshooting the plumbing.

Systems Integration Testing (SIT): During the first phase of SIT, we create a formal test plan and develop scripts against the BRD and Technical Design Document (TDD). SIT encompasses system

level tests, functional tests, and negative testing to identify every possible scenario for system failure. A formal daily review of the SIT process is conducted by resources not directly involved in the development to ensure consistency. Known bugs are categorized by severity and a resolution plan is determined before moving to the UAT phase.

Performance testing: We use industry tools (like Winrunner) to stress the system to failure, obtain analytics, and validate the infrastructure needed to support the final release to production.

User Acceptance Testing (UAT): We develop scripts that reflect the way an end-user operates the system. This may involve building use cases from which the UAT scripts may be devised. According to our philosophy, UAT does not begin until all high severity issues are resolved and known issues are documented. When the end user touches the system, it should work as designed, present relevant error messages when an error is made, and gather information about system usability.

Testing is the most important cycle in the process yet many software vendors overlook this step. You can be assured that we always follow a formal, industry-best testing methodology.



Implementation Phase

GAP Analysis: This is a joint effort for the project team to identify any real or perceived gaps in the final product. Because of our process, typically this is little more than a formality. However, it does provide a forum to discuss future enhancements and determine long-term modifications.

Configuration training: We provide training for the customer administrative support staff, typically non-technical administrators responsible for managing day to day system configurations.

Knowledge transfer for support staff: We seek to minimize our client's dependency on us for routine support matters. This decreases maintenance costs and puts control in the hands of the local staff.

Documentation delivery: We deliver all relevant documentation to the client, including user-level help manuals, system runbooks, final Business Requirements documents, Technical Designs, and test scripts. Solid documentation is necessary for the long-term support by both the client and Laserbeam.

Feedback: Nothing is more important to us than feedback about our process, delivery, flexibility, and responsiveness. We intend to be the first place you turn to for future projects and hope to gain solid referrals from existing clients. And as we are always seeking to improve our processes, we welcome constructive criticism.

Support & Maintenance Phase

Offshore support: Whenever possible we will utilize offshore support teams to keep costs low.

Onshore support: Most clients prefer local contacts, in their time zones, who are responsive to their needs. We work with our clients to develop the optimal combination to suit their support needs.

Tier 1,2,3 support: We provide help manuals for your local help desk (Tier 1) to resolve common problems. Our technical documentation is designed to enable your own technical staff (Tier 2) to deal with the majority of issues that may arise. Whenever an issue needs Laserbeam support, we will bring the

necessary resources to bear to resolve the problem as quickly as possible. A Service Level Agreement (SLA) clearly defines each level of support and our joint responsibilities.

Monitoring: We provide monitoring when practical as defined by the SLA.

Client reviews: For a new system implementation, we recommend meeting on a regular schedule (usually quarterly) to review the current system status, discuss issues, and determine future enhancements. Should future needs warrant ongoing changes, we can arrange regular release cycles. And, we're available to meet to discuss how we can play a vital role in your future plans.

Testimonials: Positive client testimonials are our lifeblood. We will work hard so you will honestly and enthusiastically recommend Laserbeam to other customers. We will request that you provide a key contact to discuss our services with prospects. Finally, written testimonials are always appreciated!

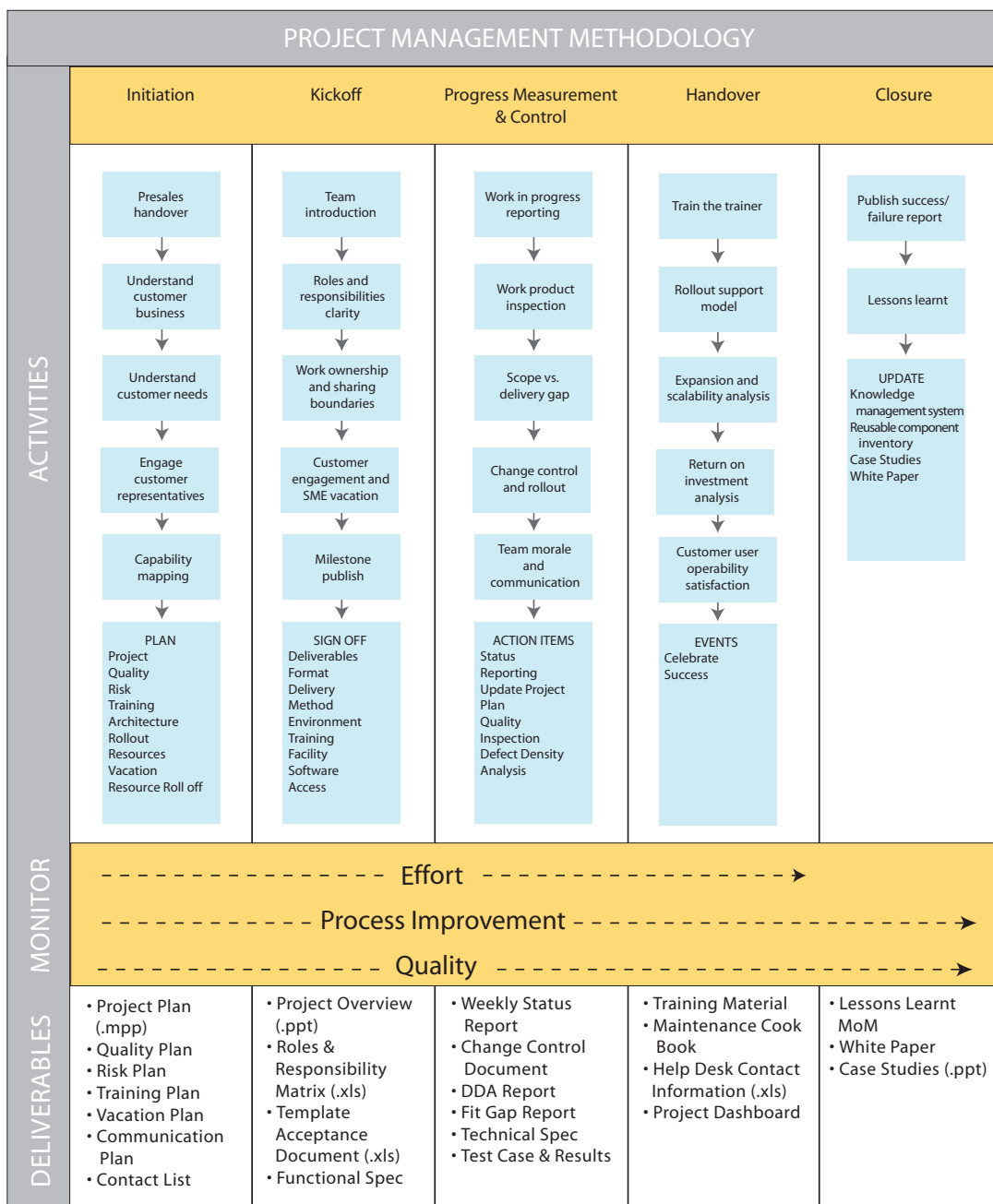
Project Planning

Thorough project planning is essential during the early stages of a project. Our project managers tailor the organization process to suit each project's requirements and a suitable lifecycle model is defined. Project Managers prepare and maintain a detailed project plan for every project.

These comprehensive plans cover all aspects of the project including:

- project objective and scope
- roles and responsibilities

- dependencies
- assumptions
- customer requirements
- project methodology
- project team structure
- client communication
- deliverables
- project phases schedule & milestones
- internal project deliverables
- resources
- tools & techniques
- problem reporting & corrective action



The Project Plan forms the basis for all project management activities. It is revised during the project as needed. We draw up detailed schedules using Microsoft Project and use them to continuously track the actual progress of various activities throughout the lifespan of the project.

Other important planning documents include a detailed Quality Plan, Contingency Plan, Training Plan, and Configuration Management Plan.

Project Tracking & Control

We achieve project control through *reviews, checks, and controls* at every stage of the project. Management reviews, technical reviews, and status reporting are integral parts of project execution.

Weekly project reviews: Project reviews are conducted periodically (typically every week) with the project teams. These reviews address both project management and technical aspects. Schedule, effort, change management, review and test defects, planning and monitoring are all typically reviewed.

Internal management reviews: Internal senior management reviews are conducted periodically (minimum, once a month) to ensure the project is on track and to address any outstanding issues that have been escalated to senior management.

Joint reviews with client: Joint reviews are carried out once a month or more frequently, depending on the project requirements and duration. Any technical clarifications are addressed. Schedule and deliverables, project progress, and software conformance are also reviewed.

Technical reviews: Technical reviews and walk-throughs are conducted for all technical work products to ensure all deliverables are of high quality and meet customer requirements.

Status reports: Status reports containing details on project progress, overall status, major issues, and risk status are sent periodically to the client and senior management.

Minimized risks: We identify any high-risk modules at the start of the project and track them throughout. Critical incidents are logged and analyzed.

We stress strict configuration management to identify, control, and trace the versions of each software item produced. This provides an effective mechanism for incorporating software changes.

Approvals and reviews are necessary at specified points for implementing changes and verifying that the changes have been effectively implemented.

The configuration management activities cover the following items:

- Identify versions of each software item
- Identify versions of each product
- Identify build status of software in development or installed stage
- Control the simultaneous updating of software items by more than one person
- Provide simultaneous updating of multiple product versions
- Identify and track all change requests from initiation to release

Configuration Identification & Naming Convention, criteria for baselining, and the version-numbering strategy are all clearly defined at the start of the project. The responsibility for various configuration management activities is also established.

We maintain detailed procedures for library management, change management, and release management. Periodic configuration audits are conducted and Configuration Status Accounting is maintained for effective configuration control.

Project Closure

At the end of each project, a project closure review is conducted to gain insight on how to better our managerial and technical processes. At this stage, we share experiences, identify best practices, analyze the problems faced and their resolution mechanisms. All information and assets for the project are stored in the process library and database to be accessible for other projects. Best practices are reviewed and considered for inclusion in the organization process.

Core Staff

Only a diverse, experienced, and highly professional team can drive successful results in software development. We've assembled a team that can deliver projects on target, on time, and within project scope. We accomplish this by following a simple approach: hire intelligently, expect excellence, and utilize our wide-ranging industry contacts to add quality staff and contractors when needed. Our company may be young, but we bind our delivery model with years of collective experience and mature processes to ensure exceptional results.

Prior to hiring, core staff must undergo a formal evaluation that includes:

- Prospective technical staff must demonstrate their programming skills in a difficult 80-question test. We developed this test, since resumes and educational history alone seldom give the complete picture. Nobody successfully answers all the questions, but that is by design. We look at individual strengths and weaknesses to find the right fit within the team. With this method, we've found newly-minted graduates with an eagerness and fresh perspective that benefit the whole team.
- Each employee is interviewed by the CTO and undergoes a peer review.
- We check references to verify work ethic, demonstrated delivery to schedule, and teamwork.
- Once hired, each new member goes through a 90-day probation period. During this time, they are partnered with a seasoned team member, given specific deliverables, and evaluated. We look for creative ability to solve problems, pride of workmanship, and evidence of a satisfying work experience.
- Once the probation period is over, we reward our employees with pay above local standards, benefits, and spot rewards to ensure high employee retention and satisfaction.

Laserbeam Partners

As a small shop, we intend to grow our staff carefully. We don't believe in hiring carelessly only to be faced with laying off staff during the normal ebb and flow of business. Our long-term strategy is to sub-contract work when it makes sense.

We bid on contracts only when we are confident we can bring solid resources to bear.

We bring the same formal processes and strict demands for quality to our sub-contract arrangements. We insist that a member of our core team works closely with the extended team. This helps us maintain visibility on work quality, gain cross-training experience, and provide ongoing support as needed.

About the founders

Laserbeam Software was founded by Naveen Veda and Patrick Durall in late 2004 after months of careful planning and preparation. Naveen and Patrick have worked closely for several years in the field of Enterprise Application Development. Successful, hard-charging managers of large-scale, high-visibility software projects, they developed an unblemished reputation for excellent results. And while they both garnered praise and success, they knew they could do more.

OPERATING FROM A SHARED SENSE OF INTEGRITY AND DRIVE TO SUCCEED, WE CAME TO BELIEVE WE COULD DO IT BETTER- DEVELOP A STRONG PROCESS- BUILD SOMETHING OF VALUE- GIVE OUR EMPLOYEES AN EXCITING AND FULFILLING WORK ENVIRONMENT- STRETCH THE BOUNDARIES OF OUR VISION. IN SHORT, WE CREATED LASERBEAM SOFTWARE WITH THE GRANDEST OF VISIONS."

- Patrick Durall, co-founder