

Seilevel Requirements Approach

Far too many software projects fail, and those failures often cost millions of dollars. The Standish Group's CHAOS Report found that only 39% of the surveyed projects were considered to be delivered successfully¹. The top 3 reasons for failure can all be attributed to requirements-related dysfunction: unnecessary or unused features, lack of scope control, and little to no user input.

Root Cause

Poorly prioritized features



Lack of scope control



Insufficient user input



How Seilevel Delivers

Business Objectives Model and Objective Chains to prioritize and drastically cut scope

Requirements Mapping Matrix to directly trace all requests back to most important business objectives

Prioritize using success metrics like end user adoption and create models that represent the people perspective

Requirements are the blueprint of every software project. They determine the functionality, behavior, and ultimately the success of the project. Unfortunately, most organizations do not place enough emphasis on requirements efforts. This vital task is often left up to developers or project managers who are not specifically trained in eliciting or writing requirements. Organizations that have dedicated business analysts rarely provide comprehensive training, viewing requirements efforts as an art rather than a discipline. A small additional investment in requirements could easily be the most important factor in ensuring that a multi-million dollar software project ends up achieving its goals.

When requirements specification is not planned and executed effectively, the implications downstream can be costly. Discovering missed requirements after deployment can cost up to 80 times more than finding them during project planning. Documenting complete and correct requirements before their development or just in time for development provides the foundation for a successful software development effort.

Seilevel's approach, driven by integrating visual models into the requirements process, is designed to be adapted to our customers' software development processes and ensures the rapid and complete definition of requirements.

Seilevel Reference Methodology

Though many requirements practices are pretty standard, no two organizations we work with are exactly the same. Seilevel has a reference methodology that we bring into each engagement and adapt to work within our customers' culture, methodologies, and existing practices. Together we develop a requirements strategy. Our reference methodologies for waterfall and agile approaches use similar techniques and tools, though each varies in the cadence and adaptation recommendations. The following components are at the core of our reference methodology, no matter the development approach.

¹The Standish Group, "The Chaos Report," 2012, Available: <http://wwwstandishgroup.com>

Business Objective Model One of the first activities we undertake on all activities is to define the business objectives for the project. Determining the business problems that must be solved, and understanding the true value of the project to the business, provides a framework for the product concept. Seilevel has created the Business Objectives Model to correlate project business objectives to the organization's financial metrics. This model gives the project team a framework to control scope and to ultimately ensure the team delivers value to the business. If these objectives are not used on an ongoing basis throughout the project, it is easy for the project to veer off course, waste time and money, and likely miss the overall goal.

Features Features are short-form descriptions that describe the system functionality that will fulfill the business objectives. We link them to the business objectives they directly support. By organizing requirements by features, the team can focus on the features that contribute the most value to the business objectives. This approach at a basic level prevents implementing unnecessary features. Every requirement will eventually be traced back to a feature, and every feature must be traced directly to a business objective.

Objective Chains Because not all features are equal, we use a technique to place a dollar value on every feature. Essentially each feature can be analyzed to figure out how it contributes to achieving a business objective with metrics applied to calculate a dollar value. Then each feature can be compared to one another to determine which features contribute the most to the overall business objectives – those are the ones the team should develop first. 65% of features are rarely or never used², so our goal is to cut them before we even fully specify the requirements for them. Similarly, projects can actually be compared against one another identifying some projects in the portfolio that can be cut or, at least, deprioritized.

Visual Models Core to Seilevel's unique requirements approach is that pictures are easy, words are hard. More specifically, business and IT stakeholders can understand visual requirements models more easily than reading hundreds or thousands of lines of requirements text. Seilevel has developed dozens of visual requirements models across four categories – Objectives, People, Systems, and Data. Collectively, the different perspectives these categories represent allow us to capture the details of a system fully. Visual models make it much easier to identify missing requirements and to cut unnecessary requirements. Finding requirements before the end of a project saves costly re-work and the missed deadlines that the re-work causes.

Requirements Mapping The functional requirements and business rules are derived directly from the visual models, and therefore remain traceable to a specific part of each model. We capture the traceability in a requirements mapping matrix, most commonly mapping requirements to features, business process steps, and business objectives. This makes review and validation of the requirements simple: each part of each model generally only results in a few requirements. Rather than walking through a list of hundreds of requirements, the models break requirements into meaningful chunks of the project that are small enough to be consumed and discussed.

Project success metrics Seilevel's approach to achieve project success is to set target metrics that are aligned with the business objectives and measure against them from the beginning of the project. A common success metric would be end user adoption of a product, which drives the team to focus from the beginning on what functionality the users need to adopt the product.

²The Standish Group, "The Chaos Report," 2012, Available: <http://wwwstandishgroup.com>

The Seilevel Engagement Experience

When we engage with customers, we are working to help the organization achieve their business objectives and have a few tactical things we do to ensure that.

Align teams on objectives We work with business stakeholders to understand the business objectives and we work with IT stakeholders, including developers and testers, to help literally everyone on the team understand them. One component of this includes kick-off slides for major meetings and discussions that remind everyone of the objectives – so the whole team sees them repeatedly throughout the project.

Status against project success Each week, a status report goes out to our key stakeholders including what happened in the last week, commitments met and missed from the prior week, progress on issue resolution, risks, health of requirements, and project success measurements. The health of the requirements gives a quick view into things like which areas of requirements are almost complete (or lacking), how many models are created, and how many requirements are traced (or untraced). The measures of success are simply current status against the things that are most important ensuring project success. We find a weekly focus on these metrics helps ensure the entire team is focused on the most important things.

Impact Requirements are just a means to an end. In fact, perfect requirements alone do not necessarily translate to project success. Therefore, one of the key factors we measure in any engagement is the impact that we are having on projects. That way if the value isn't there, we can course-correct quickly. This impact ultimately looks like measuring whether business objectives were met on projects, but there are interim measurements along the way to help achieve that.

Activity monitoring Part of a successful requirements effort on any project is planning it and giving it the necessary time to do it well. That said, we know timelines and budgets are always tight, so we use a daily burndown chart to track remaining time to complete all known activities. This is not reported as a percent complete, but rather by hours remaining on each task. We use a recent team velocity to accurately forecast when the activities will be complete. This is an invaluable tool to help our stakeholders decide if and when they need to cut scope or increase velocity by adding new team members.

Issue tracking Detail oriented analysts are usually great at keeping track of all of the open issues. In the requirements space, common issues include questions for subject matter experts, questions about scope, incorrect requirements as found by reviewers, questions from developers and testers about meaning, and possible gaps. We treat issues much like defects in code, but throughout the entire requirements lifecycle instead. Every issue encountered is logged in a system so that we can track their close rates. If we see a plateau in issue resolution, we can quickly escalate to stakeholders to try to resolve issues before they impede development.

Leveraged deployment model Part of how we've developed this organization is to bring the best and brightest college students into Seilevel with little to no experience. We train them quickly on our methodology and pair them with experienced colleagues to enable them to produce value almost immediately on projects. Our customers appreciate being able to use a leveraged deployment model that gives them some experienced resources with mid-range and less experienced resources on certain tasks that don't require the senior resource.

Summary

Seilevel has expertise in applying powerful yet simple techniques to understand business objectives, develop complete sets of requirements, and prioritize the requirements against the objectives. We work with our customers, moving projects forward to completion while simultaneously providing mentoring so our customers can start to apply these techniques on their own. Our techniques create cost savings by discovering requirements early in a project in order to avoid rework or missed functionality, helping our customers cut unnecessary scope early on, and engaging users as well as other perspectives for complete requirements. Together these help ensure that our customers' software projects are successful.

About Seilevel

Seilevel's mission is to define software that your customers will love. We are devoted to being the best in the world at product management, with only 1 and 200 candidates making it through our recruiting process. The investment in Seilevel resources exponentially resonates beyond our direct work on an individual project. We embed strong leader resources into teams to get your execution timelines back on track, all while coaching your teams on the skills and techniques we use to deliver business outcomes.

Our unique approach to leverage RML visual models to ensure we manage successful software products through their lifecycle is fully published in *Software Requirements, 3rd Edition* (Microsoft Press 2013) and *Visual Requirements for Software Requirements* (Microsoft Press 2012). We also contribute to growing the product management community.

Some of our recent contributions include:

- Co-authored PMI's first entry point into the business analysis practice, with *Business Analysis for Practitioners: A Practice Guide*.
- Member of the core team that wrote IIBA's BABOK, version 3
- Published on CIO.com for our extensive and unbiased study on requirements management tools.
- Contributing author to PMI's standard in business analysis, in which the team emphasized agile by writing about business analysis practices in agile first, supplementing later with traditional requirements approaches later.
- Speak at industry congresses regularly, such as: Building Business Capability (BBC), PMI Global Congress, CIOP Perspectives, IIBA & PMI meetings and events.