

WHITE PAPER

Conquer the 5 Biggest Challenges of Requirements

Eliminate Key Obstacles for Better Complex Product Development

Every year, the complexity of projects increases. Requirements documents can be more than 100 pages and change 20 times during the development process. That means you likely spend hours circulating, editing, and tracking changes to a hefty requirements document with the hope that your team reads it and stays engaged.

The problem isn't the requirements document itself. The problem is in using the document as the place to manage requirements. It's no longer realistic to use documents to set expectations, communicate project details, and track changes throughout the process of developing today's complex products.

As the person responsible for ensuring everyone understands what we're building and why (a.k.a. requirements), you must evolve how you work. You must embrace new techniques and tools to find a better way to communicate requirements and deliver the right solutions while making the process as enjoyable as possible.

Based on our own experience and that of our customers, we compiled the five biggest challenges of requirements management, as well as expert insight into how to conquer each one. (Note: All these tips support a new, more collaborative way of working, which focuses less on documents and more on the people and communication needed to be successful. Requirements management isn't about managing documents, it's about keeping your team in sync on the goals of a project and executing on building what's right.)

CHALLENGE 1

The 11th Hour Swoop-In

An executive comes to you last minute with feedback that you needed three weeks ago.

We've been on both sides of this frustration, and it's not pleasant for either party. The reality is that managers are busy dealing with a variety of issues and are often forced to focus on what's most urgent. Also, ideas might be generated after leaders or stakeholders see prototypes and realize that what was specified in the initial requirements document is no longer the best solution.

Expert Tip: Be Open

To prevent the 11th hour swoop-in, you must be transparent and open to feedback at all phases of the project. Give management better visibility and a continuous feedback loop throughout the development process to address issues before it's too late. Frequent check-ins can help get reactions early. If your team and executive staff are in the same office, this is easier to accomplish. Have a white board or dedicated wall sharing the latest designs in a prominent location. Every day, folks walk by and have an opportunity to react to what they see. Most people respond better to visuals versus written words to understand the user experience.

If you're a distributed team in multiple locations, as is common today, then a specialized solution that provides everyone a central hub for the project's requirements, related designs, and real-time feedback will

help. Anyone, no matter where they are, can see what's happening as the project evolves and you'll be able to see any disagreements or potential hang ups before they cause costly rework.

CHALLENGE 2

Decision Rehashing

Meetings are spent revisiting old decisions or bringing others up to speed.

Decisions may be overturned as new information becomes available during the development process. However, there are better—and more cost-effective—ways to work through these changes than hashing it out in team-wide meetings.

Expert Tip: Be Clear

To manage change well, the whole team needs full context of the decisions made to understand why things are changing and how those changes impact the project's scope. People need clarity and understanding to execute at their best.

This applies upstream to your stakeholders and customers so they understand what they're getting. It also applies downstream to your design, development, and QA teams so they know exactly what to build and test properly.

Modern collaborative solutions exist that can help you capture the healthy debates and ongoing discussions that naturally take place around requirements, without the need for more meetings. People can see what others are saying and add their feedback anytime to agree or disagree, approve or reject, or propose edits to refine the solution.

Also, decisions made in meetings aren't easily tracked in documents and people's memories fade as time goes on. If this is an issue for your organization, adopt a new technique to capture decisions in line with requirements, and make them easy for the team to view anytime. This will eliminate ambiguity and ensure that decisions about the project are crystal clear.

CHALLENGE 3

Change Tax

Manually sending updates to everyone when something changes.

When executing complex projects, change is going to happen. And, often for good reasons. As you get deeper into the design and development of a project, you know more than you did at the beginning. Thus, you and your team will think of better ways to build the desired product and iterate on the requirements along the way. If you try to manage versions and maintain visibility by tracking changes in Word documents, you'll experience a huge tax on your time.

Expert Tip: Be Iterative

Embrace changes intelligently by connecting the dots, quickly assessing the impact, and automatically communicating changes to the right people involved. You want your entire organization to feel empowered to propose a change if they find a better solution.

The number one reason to adopt Agile within your organization is to create a culture that is nimble so your team can respond quickly and effectively to changing requirements. Thus, iterating as you go.

Don't get hung up on the labels or the debate of whether scrum or kanban is superior. There is no definitive, one-size-fits all process. Agile first and foremost is a cultural mindset, not a prescriptive development process.

If you're coming from a more traditional waterfall approach, your challenge with adopting agile is to avoid going from one extreme to the next. There is a myth that Agile doesn't require a plan, but that isn't the case for most organizations.

Smart Agile teams maintain requirements best practices such as traceability, impact analysis, and change management, which are borrowed from traditional methods so they can understand the ripple effect a change has on the rest of the project.

It's a balancing act between agility and formal control. Some call it a hybrid approach. Again, the labels don't matter. The key is to find the mix of techniques that works best for your team so you can execute projects without friction.

CHALLENGE 4

Attention Deficit

Creating a detailed 200-page plan that no one has time to read, maintain, or review.

You need to articulate your entire plan to everyone included in the product development process. The problem is, most people only care about specific parts of the plan at any given time. If you're working in documents, that means you'll spend a lot of time creating something few people will ever read. And, any time an item changes, folks must review the whole thing to find what's changed and determine each time if it's relevant to them or not. Eventually, people stop paying attention.

Expert Tip: Be Relevant

Adopt the philosophy that everyone is simply too busy to absorb an entire requirements document. To avoid being frustrated by your organization's collective attention deficit, relevancy is key.

This is an area where product development solutions can help you break large, complex projects into smaller, manageable parts and let people focus on what's relevant to them. We recommend you manage the scope of projects item by item to get work done.

If you're curious what we mean by "item," a requirement is an item. A use case is an item. A test case is an item. A defect is an item

People naturally work on a list of a few items at a time. It's how our brains work, and we're more productive that way. By itemizing the scope of your projects using a solution with a relational database, it will allow people to focus on specific items they are working on, and maintain context of the overall project. Then, as needed for baselines, releases, or milestones, you can group together items and summarize the project via reports or a specification document for a holistic view.

CHALLENGE 5

Mismatched Expectations

Stakeholders think they are getting one thing and are delivered another.

The expectation gap can cause real problems for company morale—not to mention your bottom line. Your development team takes pride in what they created, so when it doesn't meet expectations, they can feel as though their hard work is wasted. On the other side, stakeholders can feel as though they haven't been heard or that the development team didn't understand the request.

Expert Tip: Be Proactive

Every project has changes during development, be they additional things to add or the reprioritization of features as the scope evolves. You must be able to document requests, justifications, decisions, agreements, and approvals made by the appropriate stakeholders. And that information must be available to everyone throughout the development process to ensure a consistent set of expectations.

Without adding a lot of unnecessary overhead, modern requirements management solutions offer the capability to capture the decisions, reviews, approvals, and electronic signatures to scope changes, as well as provide context, all as part of the natural workflow.

With that level of visibility, everyone can be confident they know the plan, and your development team can feel good about delivering what's promised. And your launch event can be a celebration of your great work rather than an interrogation of what went wrong.

Want to learn more about empowering your team, transforming your development process, and delivering better business outcomes? Visit www.jamasoftware.com.

ABOUT JAMA SOFTWARE

Jama Software® is focused on maximizing innovation success in multidisciplinary engineering organizations. Numerous firsts for humanity in fields such as fuel cells, electrification, space, software-defined vehicles, surgical robotics, and more all rely on Jama Connect® requirements management software to minimize the risk of defects, rework, cost overruns, and recalls. Using Jama Connect, engineering organizations can now intelligently manage the development process by leveraging Live Traceability™ across best-of-breed tools to measurably improve outcomes. Our rapidly growing customer base spans the automotive, medical device, life sciences, semiconductor, aerospace & defense, industrial manufacturing, consumer electronics, financial services, and insurance industries.