Forerunners

The Cheat Code to a Successful Implementation:

Functional Design

We've all been there. A brand-new initiative is underway. The whole organization is anticipating the promised outcome. The business case is a no brainer. "It will make our lives easier!" is the only accepted opinion… until it isn't.

Go-lives, whether they pertain to a new system deployment or a process improvement, can be disappointing when prepared for improperly; we generally look back only to the go-live prep, training material development, bugs in the system, or change management as the root cause for the 'botched' go-live. Even when a structured approach or time-tested methodology was used, we still struggle to have a smooth launch – why is that? Perhaps the most critical part of any implementation is the first step: Functional Design.

The Forerunners Definition: Functional Design is the process of aligning to business requirements, documenting the various design options that can satisfy those requirements through either process or systemic solutions, and validating the recommended solutions (the "how") with the functional capability owners in the organization. The deliverable (the set of documentation that is assembled during this process) forces debates between functional areas of the business leading to alignment on decisions, creates a collaborative working environment between the business and IT, details out usually overlooked nuances which eliminates misunderstandings, and provides clarity to stakeholders.

Lastly, it becomes the artifact – single source of truth – serving as the bible for scoping (the 'what' we focus on very specifically) and the solutions (the 'how' for those things we are focused on) for the remainder of the implementation effort. Those subsequent implementation phases we call 'the deployment'.

Quality functional design is usually the determiner of a new initiative being regarded as a success or a failure. Taking a small amount of time at the onset of a new (sometimes technical) initiative to address functional design encourages collaboration and alignment across business and IT team members, creating confidence that requirements are properly designed for and addressed in the implementation scope.

For the sake of consistency throughout this paper, Functional Design will be discussed through the lens of a systems deployment. However, there are endless scenarios when it is appropriate.

What type of project or in what situation should we be considering a functional design?

- A new software system implementation
- Integration strategy/application is changing
- Current system(s) or capabilities are not performing as expected (i.e manual workarounds, unscalable processes, business interruptions / downtime, etc.)
- Onboarding a new division to a legacy system (i.e., North America region has been leveraging system A for 2 years and there is now a desire to onboard EMEA to system A)
- A new service-offering is going to market
- Integrating a new acquisition onto a new execution / back-office software
- Switching 3PL facilities / service providers
- Launching a new distribution channel

Getting Started

PREREQUISITES

While many planning and execution system vendors will tell you that their workflows accommodate best practice in all industries and operation models, there is always optionality that exists in how you choose to deploy. In order to ensure all stakeholders are aligned to the specific solution that will be deployed, they need to start with writing down the business requirements that are in scope of the deployment. While it is possible that software can meet a majority of requirements, these need to be properly documented and designed for to ensure the functionality is clearly understood by all parties. This is why functional requirement documentation is a CRITICAL input for functional design.

Once the operational users are confident they have recorded all requirements, the project team can start to draw very high-level conclusions on how the future-state functionality will look. These can be documented in the form of broad (high-level) process flows and integration flow diagrams. These diagrams will later serve as a starting point to help guide design conversations. Several updates will be made to them throughout the functional design workshops and a significant amount of detail will be layered on as the design matures.

WORKSHOPS

The requirements document, process flows, and integration flows mentioned above are all inputs to the functional design process. The bulk of the work, and highest value-added activities, come next in a series of meetings, referred to as Functional Design Workshops.

There are 3 types of workshops:

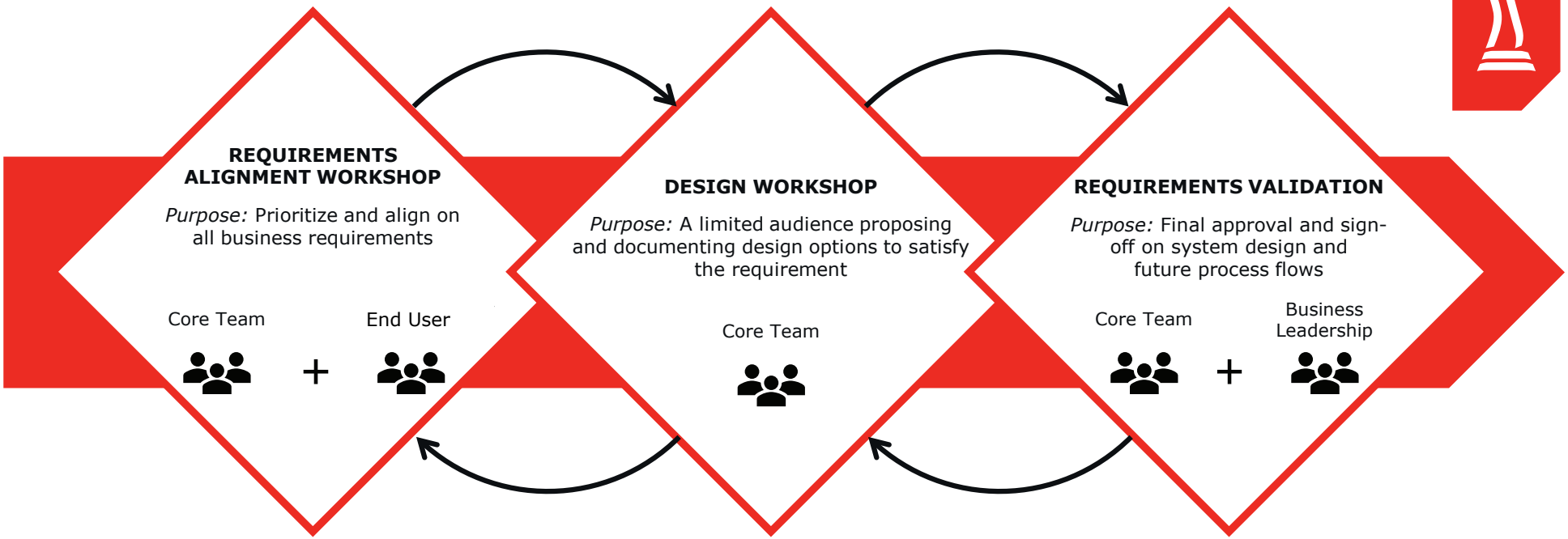
1. Requirements Alignment Workshops
2. Design Workshops
3. Design Validation Workshops

Before getting into the purpose of each of these, it is important to understand the audience. When discussing the "core team," we are referring to the primary team members that will be responsible and accountable for design outcomes. These individuals are expected to participate in all 3 workshop types. This crowd might include roles like business/functional area owners, functional super users, technical product owners, and system/solution architects. While the core team will remain constant on these workshops, it may be relevant to incorporate additional team members from time-to-time, like end-users. These are "boots on the ground" individuals that work through the day-to-day activities and will have the best perspective to shape requirements.

Later when decisions are needed (during Design Validation), it will be necessary to secure leadership team member attendance as well to provide direction and sign-off.

The goal of the requirements alignment workshop is to ensure all parties are aligned to the operational/business-side needs. This workshop should include the individuals who drafted the requirements (end users), plus the entire core team. These workshops typically have the largest audiences, so it is important to have the requirements documented ahead of time before investing in the alignment to them. Alignment sessions review the documented requirements and provide a forum for solution resources and business resources to challenge their interpretations and practicality before pulling them into design.

Once requirements are aligned to, the team will be ready to move into design workshops. For these meetings, the core team should be included but end users do not typically need to be involved. It is easier to foster creativity and collaboration when coming up with unique design options in a smaller setting. During these meetings, the team will document all the design ideas (options) that are thrown out to satisfy agreed upon requirements. Each design option should be coupled with pros/cons so that when it comes time for validation, there is significant detail to support the decisions being made. All of this is logged in a Functional Design Document (FDD) that captures the design options including their implications and core team identified preference.



In an ideal scenario, all design options would be discussed, the team would reach alignment and be ready to move into validation. In reality, this is not usually the case. It is common for the core team to get stumped on a few design topics or the associated requirements throughout the design workshops. In this situation, the best approach is to pause the design workshops and take a step back into requirements validation, bringing in the appropriate end users and working through any concerns. Once addressed, the team can pick up where they left off in design.

Once the team is ready for design validation, leadership resources are pulled in. The goal of these sessions is to secure leadership approval on the preferred design options. As mentioned, the 3 types of functional design workshops typically do not take place linearly. If challenge is presented on any of the proposed design options, it is a good idea for the core team to revert back to a design session and make modifications to be resurfaced with leadership at a later time.

"Functional design enabled us to gain alignment on the tough decisions as an organization before we invested in build, test, and deployment activities. Our refreshed product was adopted quickly with fewer surprises than in the past." - Seth Dunlap, EVP Finance & IT @ Infinity Global

CLOSING SUCCESSFULLY
(post-design validation)

Functional design workshops are considered complete once leadership approval is given during the design validation. At that point, the FDD should be a lengthy and highly detailed document. This detail will ultimately allow the core team to put together a realistic timeline for the upcoming implementation effort and scope the total cost of ownership (TCO) to complete the effort.

The FDD should continue to be the primary reference document for the deployment. It is worth noting that even though the focus during these workshops is on functional requirements, process, and workflow needs, the FDD provides tremendous insight to technical teams as well. The FDD should be the basis for technical documentation development, which can include anything from Entity Relationship Diagrams (ERDs) to Data Flow Diagrams (DFDs) and beyond.

Common Benefits of Functional Design

- \+ Creates accountability to outcomes amongst project team members
- \+ Secures alignment on historically conflicting expectations between operational and IT team members
- \+ Enables flexibility to easily revisit design decisions and adapt to customer requirements or internal pressures
- \+ Ability to scope a realistic implementation timeline and level of effort based on visibility and understanding of the design components

While the goal is to create a design flexible enough to withstand the dynamic nature of supply chains, it would be foolish to think new requirements won't develop over time. Whatever Functional Design may be used for, whether it be technical (i.e. TMS implementation) or functional (i.e. crossdock process rollout) implementation efforts, it is crucial to understand that this is not a one-time project. The design should be regularly revisited to ensure the appropriate benefits are captured. Clear communication, collaboration, and a commitment to ongoing improvement are key components of a successful long-term solution that has potential to live up to the claim "this made our lives easier!"