



Our Software Delivery Methodology **What to Expect in the Development Process**

This overview of our Agile development process contains information that you need to know before we start your software project. It explains your role and responsibilities (and ours), describes what happens in Sprint 0 and the development Sprints, and identifies the deliverables that you can expect to receive. After reading it, you should have a better grasp of key Agile concepts like the Definition of Done and Product Backlog.

Introduction

Before we begin working together on your software application, you should know what to expect during the development process.

At Architech, we use an iterative software development process called *Scrum*, which is a methodology based on Agile principles. As such, it is a collaborative process in which you are an active participant, so you—or more specifically, your assigned representative, the *Product Owner*—will have certain responsibilities. After each stage of the process, you will receive a set of agreed-upon deliverables for review and approval.

In this brief overview of our software development process, we will describe:

- Roles and responsibilities.
- What happens in Sprint 0 and the development Sprints.
- What we will deliver and when.

However, before we get to all that, let's define some essential terms that might be unfamiliar to you.

Definitions

Here are some important Agile-related definitions that you will need to understand:

Definition of Done (DoD)—clear acceptance criteria for each Story.

Product Backlog—the set of Stories that comprise the requirements for the Application.

Sprint 0—the first sprint before the main development sprints start, where we create the Product Backlog and system design.

Sprint—a phase of work usually lasting two weeks, after which a new iteration of the Application is made available.

Sprint Backlog—the set of Stories that comprise the requirements for a single Sprint.

Story—a discreet unit of business value to be realized as system functionality or behaviour within the context of the Application. A Story is subject to change at any time prior to the commencement of a Sprint but not during a Sprint. The format of a typical Story is illustrated in this example:

As a user, I want to see the number of unread inbox messages displayed on the screen **so that I can** save time by only opening my inbox when there are new messages waiting for me.



Delivery Methodology

We will deliver the Application using our Agile software development process, which begins with a planning phase called *Sprint 0*. When planning is complete, we will initiate the first of several development Sprints required to produce the finished Application.

Sprint 0

The price we have quoted you is based on Architech's estimate of work required. During Sprint 0, Architech will work with you to clarify the business requirements.

Here is an outline of Sprint 0 activities:

- You will provide a Product Owner who is proficient in the Scrum process. If Scrum is new to you, we will work together to ensure that this individual is properly trained.
- We will work together to define the initial Product Backlog for the Application. This includes defining Stories at a conceptual level and providing an initial estimate for each one. The initial Product Backlog will not necessarily include all Stories in your roadmap for the Application.
- We will work together to prioritize the Stories in the Product Backlog.
- We will work together to create a Definition of Done for a sufficient number of Stories to drive at least two Sprints. Throughout development, the team will try to maintain this minimum level of readiness so that the *delivery velocity*—the rate at which the software is developed—can be maintained and hopefully increased.
- We will work together to better define a realistic roadmap for the Application, within the context of a conversation about budget, dependencies, and joint capabilities to deliver.

Architech will deliver these documents at the conclusion of Sprint 0:

1. Software Architecture

- A logical architecture diagram outlining the responsibilities of each element of the Application.
- A technology architecture diagram outlining the technical details of the Application.
- A list of key architectural decisions that need to be made, a non-functional architecture Story for each one, and inclusion of these Stories in the Product Backlog. You will prioritize them for completion with the other Stories.



2. User Stories

- As many Stories as required to provide a complete description of the Application for the first release.
- Stories with Definitions of Done (that we've jointly agreed on) for a minimum of two Sprints.
- All Stories come with estimates, risks, and assumptions.
- Architech will define and maintain all Stories in an Agile tracking system.

3. Prioritized Product Backlog

- A Product Backlog that's used to guide the Release Plan and Sprint Plan.
- The Product Backlog and the Stories will be loaded into and maintained in an online Agile tool.

4. Release Plan

A confirmation of the estimated Sprints, project team, and resources that are required to deliver the Application.

Agile Software Delivery

After the scheduled completion of Sprint 0, Architech will begin the first development Sprint.

On the first day of each Sprint:

- Architech will organize a Sprint planning meeting (that your Product Owner will attend) to agree on which Stories will be implemented in the forthcoming Sprint. To ensure that the story selection process will go as smoothly as possible, Architech will work with you to define selected Stories in advance of the meeting.
- We will work together to elaborate on the selected Stories. This will include additional analysis, user requirements discussion, storyboarding, and design refinement, where appropriate.
- Architech will review the Definition of Done for each selected Story and recommend changes if any DoD is unclear.
- Once the delivery team has formally accepted a Story, the Definition of Done cannot change during the Sprint. The DoD for each Story will form the basis of the Acceptance Test Plan and test cases. The Acceptance Test Plan and test cases for each Sprint will be developed during that Sprint.
- We will agree on the assignment of Stories to Sprints. Going forward, we will regularly review this ordering.



- Architech will commit to develop and deliver mutually agreed-upon Stories by the end of the Sprint, and pass the Acceptance Test Plan.

During each Sprint:

- We will jointly attend daily 15-minute scrum meetings to track progress, and eliminate ambiguity. You will be able to access all information, including burn down charts and other working documents, online through a tool that Architech will provide.
- Architech will create architecture and design documentation as appropriate to be delivered to you for each Story. This may include unified modelling language application models as per the design, object relationship models, and other design details.
- Architech will develop working code to pass the Acceptance Test Plan for the Sprint.
- Architech will provide unit tests, including automated regression test suites of components that comprise the Application.
- Architech will perform functional testing of the Application within the Architech environment using a continuous integration build and testing platform.
- Architech will provide release documentation as appropriate. This will include installation and configuration notes and a list of outstanding known issues.
- The chosen Stories cannot change. Any changes can be included in a subsequent Sprint.
- We will work together to define additional DoDs so that the number of Stories with DoDs is maintained (i.e., enough for a minimum of two Sprints, not including the current one).

On the last day of each Sprint:

- Architech will provide a demonstration of the Sprint Stories, showing all test cases and recording the output to ensure that it matches the expected behaviour defined in the Acceptance Test Plan.
- Upon successful completion of the demonstration (including achieving the Definition of Done), you will accept the Sprint. If, for some reason, you are unable to accept the Sprint, we will work to remedy the problem immediately. Note, however, that any changes of requirements are handled as new Stories.
- Your acceptance at the end of the sprint demo is sufficient to trigger the agreed-upon billing schedule.

After the Sprint has ended, Architech will organize a *retrospective meeting* that you will attend, where we will discuss lessons learned and try to find ways to increase delivery velocity going forward.





Architech Solutions is a Toronto-based technology consulting and software development firm. We design and build powerful, user-centred systems that work. We're agile, disciplined, and passionate about delivering for our clients.

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