

Soda iterative design and development process

The following process is made up of three core elements - Release planning, first iteration and further iterations. A project (or specific phase of a multi phase project) should consist of Release planning, first iteration and at least 3 further iterations. The close of an iteration provides an opportunity for Soda and the client to consider progress and make a business decision as to what the priorities for the next iteration should be. It also provides an opportunity to consider whether the current vision for the project is realistic in terms of available resources and therefore allows for the client to consider whether the project as it is currently imagined is realistic.

Release planning

Release planning is a high-level project requirements exercise that ensures a shared vision of what Soda and the client are working towards. This provides a foundation for the detailed design and development activity that follows and a framework that ensures that the client is fully engaged in the process of all prioritisation and essential decision making that effects project outcome. The Release plan (the outcome of this process) allows Soda and the client to maintain a realistic and shared expectation and understanding of the aims of the development process and helps to maximise transparency throughout the project. Release planning consists of the following steps:

1. Client writes up 'user stories'

User stories are specific actions, activities or 'things' the client wants users to be able to achieve (it is important to define who the user/s are in this e.g. teacher, pupil, parent, community member, random web user etc). Each user story should be a short (three line maximum) description. The user stories will set up the direction of the project. Soda can work with the client on this (e.g. through email, telephone or face to face meetings) if required. The outcome of this part of the process will be a long-list of user stories.

The ideal user story doesn't refer to any specific technology (unless this is somehow mandatory e.g. existing system), and doesn't identify any "design" or "solution". However one of the purposes of the next step (design requirement stories) is to rework any user stories that include any premature design to provide a clear long-list of design requirements. Therefore at this stage it is more important to ensure that all user stories are captured than to become over concerned as to whether they include any premature design.

An ideal example user story:

Teacher needs to be able to collect in a set of pupil work as if "taking a set of exercise books home", add comments and then return them to individual pupils in an un-editable form

The above user story in a form that will require rework during the Design requirements step below:

Teacher needs an assignment management application which will download pupils work from the internet and will have three text boxes for typing in comments and an upload button which will ftp the pupils work and results as a word file.

2. Design requirement stories

Soda carries out initial consideration of the user stories from step 1. This may involve some re-interpretation of user stories in order to reformulate them as "design-requirement stories". The difference between a "design requirement story" and a "user story" is that the "design requirement story" has any implied design-work factored out to ensure that Soda and the client understand the difference between design requirements and potential design solutions. This may require Soda seeking clarification from the client on some of the details or assumptions in specific "user stories". It is likely that the "user stories" that make up the client long-list will include some that are already "design requirement stories" and some that are "user stories". The outcome of this stage of the process is to ensure that all stories are now "design requirement stories".

3. **Client and Soda agree and sign off the long list of “design requirement stories”**
Client then reviews the long-list and together with the Soda design team (via email, phone meeting or face to face meeting as necessary) agree on the long-list (rewording or adding “design requirement stories” as necessary). This does not in any way set mandatory requirements for the development work nor does it limit the scope for new requirements in a subsequent iteration (new stories can be added later). What it does is set us on a trajectory – and thus is critically important. Signing off is to ensure that the client and Soda are in agreement as to what the long-list of requirements are that will then be used for prioritisation.
4. **Client prioritises the stories**
Client adds weightings to the long-list to indicate business value. This is achieved by the client allocating (arbitrarily) fixed number of “value points” to indicate the relative value of each of the stories to the project as a whole. If the client can’t add weightings this indicates that the list should be reviewed. Resolution is likely to be achieved by identifying why stories can not be weighted and if necessary any number of stories should be re-defined or split into a number of smaller more specific stories in order that weighting can take place.
5. **Soda estimates the stories**
The Soda design team allocates “cost points” to each of the weighted stories in the long-list by identifying how long it will take to design, develop and test each item on the long-list. These are rough estimates. Ideally the design team will not need to split stories into two at this point or add dependencies between stories. However, the design team may sometimes have to create extra stories (technical requirements or technical stories) for things which are implied but not stated – or just part of the particular kind of project overhead.
6. **Scoping agreements (and reprioritising/rewriting)**
We can now start to frame the possible scope of the project. Given an understanding of how much Soda resource is available for each elapsed project week – and a rough relationship between points and elapsed time (the “project velocity”), we have an idea of what can be done within the limited time & budget – i.e. how many “cost points” we have to spend. Given a limited budget & limited time scale the client is now able to add up enough of the costed stories to allow for a working minimum functionality (and enough spare cost points to go towards added value which is essential to any Soda project).

There is sometimes a need at this point to attempt to simplify some requirements (stories) – or to change the value points. However, it is very important to avoid making cost points shorter as this may indicate the project moving into an unrealistic or unachievable state.

Part of this work is inevitably doing some kind of high-level design, whether just within the soda team (in order to reassure ourselves that the goals and scope are achievable and designable) or together with/ratified by the client (the longer the overall release plan, the more likely the high-level design must be shared by the client, and form a deliverable in its own right, however it is important not to get tied down by high-level design. However, it is important to establishing a common vocabulary at this stage as during the development process it is inevitable that terms and phrases will take on implied meaning and therefore developing a shared understanding of project metaphor will greatly aid the ongoing process.

7. **Soda selects stories for first iteration**
It is the Soda design team’s job to choose a number of stories from the core stories whose total cost points are less than the current project velocity (cost points per iteration) – given particular ‘specialisms’ (UI design, UI coding, server-side web coding etc.) there may be resource constraints to factor in. In the first iteration there may be mandatory technical or project overhead stories to do, but otherwise, the design team choose the combination that most closely adds up to the project velocity, while **maximizing** total value points. The first iteration is likely to involve both wireframes (i.e. a paper prototype) and coding in parallel.

8. Commitment meeting

At this stage the Soda design team and client meet (ideally face to face) to agree on the scope for the forthcoming iteration, sketch out any grey areas/soft issues (maybe involving whiteboard sessions) and agree the set of stories for the first iteration. The overall aim is to ensure we all have the same vision. The meeting will address:

- time & budget limitation
- iteration size – normally two calendar weeks, but this may vary
- expected project velocity (cost points per iteration) – based on number of Soda team members on the project and past experience
- a set of costed and value-prioritised stories which must satisfy minimum business criteria as understood at the start of the first iteration
- a proposed set of stories for the first iteration

First iteration**9. Iteration work**

Soda works on the stories for the length of the iteration time. It's essential that the Soda design team can ask more questions and get clarification from the client during this time, and equally essential that new requirements are collected by the client but held until the next meeting. If Soda finishes early, and has time to spare – more stories are selected to implement.

10. Delivery

At the end of the iteration time, there is a cut off (very important to time-box this process so that the project doesn't run out of control). However, whatever happens, there must be a visible outcome (e.g. one or more of: an executable application, a *visitable* website, a set of wireframes) – these should be complete deliverable/s regardless of the size of scope (i.e. may include small deliverable/s).

11. Client review

Client reviews the outcome and considers if any stories are unfulfilled (unfulfilled stories need to be returned to the to do list) but also whether their expectations or needs or understanding of the project requirements (set of stories) has changed. Any new stories identified need to be written up in preparation for the next iteration.

12. Soda review

Soda track and review project velocity, and also review if there are any misunderstandings of scope and bring these changes to the next meeting.

13. Iteration closes**Further iterations**

NB: note that the iteration work is shorter than the iteration length. Elapsed time is really critical for this to work. If an iteration is 2 weeks (10 business days) then there is an absolute maximum of 7 days in which the iteration work could take place in order to ensure that there is sufficient time for the required communication to close one iteration and open the next.

1. Iteration meeting

Client and Soda have an iteration meeting (could be via phone or even asynchronously via email) where the following changes may occur:

- Soda or client can propose new (important) stories
- Client can present a revaluing of existing stories
- Soda can present a re-costing of existing stories
- Soda can present a change of project velocity

Outcomes of the iteration meeting

- Agreement on continued feasibility of the Release plan if there is any change in the value of existing stories or new ones are added

- If there are any changes introduced that make the latest version of the Release plan unreliable then it is essential to consider whether there is now a need to redesign the project to focus on most achievable high-value business aims (e.g. by reprioritising the set of stories or redrawing the minimum scope)
- Agreement on a set of stories for this iteration

2. **Iteration work**
3. **Delivery**
4. **Client review**
5. **Soda review**
6. **Iteration closes**

Notes

All development will take place in an outward-facing development server so that the client has access to functions as and when they are ready. This ensures maximum visibility at all times.

This is the current Soda agile process, and while it shares some commonality with particular software development agile processes – it is not equivalent – particularly because, being a creative and design-led organisation we are often engaged with trying to help our clients make delightful and usable products out of strong but sometimes ‘hard-to-express and specify’ thoughts.

This process rests on the idea that even if understandings of project scope or difficulty change over the course of the project, the Soda + client team are collectively committed to achieving a finished result of business value.