



White paper: Scrum-ban for Project Management

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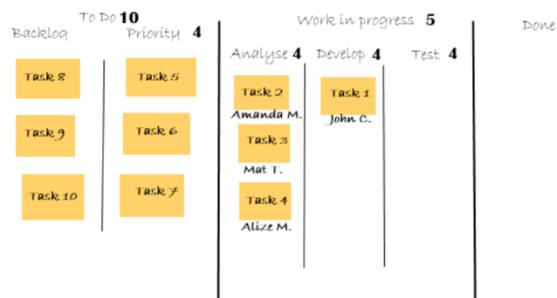
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PRELUDE

Every project manager is looking for the new ways to improve company's processes. For the past decade project management has been moving away from waterfall-style to an agile approach. Because of agile methodologies popularity, there sometimes is confusion on what exactly they mean and how they differ. The most common agile approaches today are Scrum and Kanban. But it is not surprising that each of them has its own benefits and drawback. There are various situations when none of them separately will satisfy companies' needs. For this reason there was created an alternative to those methodologies – Scrum-ban. As well as every agile approach there are some common pluses and minuses. It is important to know main differences between separate approaches because understanding of them can provide valuable insights when choosing and applying the right one. While there are a lot of information about Scrum and Kanban and their advantages and disadvantages there is still lack of information about their mix – Scrum-ban. In this whitepaper you will find out the common Scrum-ban features and benefits, the main difference of this methodology compared to Scrum and Kanban separately and who should use this methodology.

SCRUM-BAN

Scrum-ban is a compromise between Scrum and Kanban methodologies for increased applicability and versatility tool for product manufacturing and support focused companies. This methodology became so popular today because of its ability to increase efficiency of project management without consuming precious project development time and decreasing project management team flexibility. This methodology is the mix of Scrum and Kanban which combines the flexibility of Kanban and the basic features of Scrum. Scrum-ban decreases overhead stress for the development team, increase efficiency, and increase the overall satisfaction for the customer. As mentioned above all Scrum-ban advantages arises when Scrum and Kanban approaches are mixed. Below will be more widely described common features of Scrum-ban which distinguishes these methodologies.



1. ITERATIONS, WORK ROUTINES AND SCOPE LIMITS

Iterations

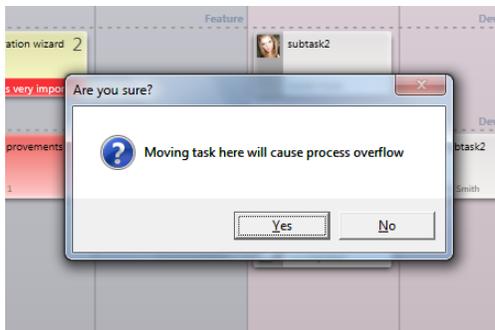
Iterations are predefined timeframes, during which a portion of work or a task is done. Scrum-ban combines the two approaches into one. Continuous work is used along with short iterations for planning, and longer cycles are used for release.

Work routines

Work routines define how the tasks are distributed among the team members. Scrum-ban as well as other agile methodologies use pull principle – whereby the team members choose the tasks they would like to work on. Scrum-ban contrary to Scrum use late binding of tasks to the team members. The tasks are chosen during the work process. Once the current task is finished, the team members are free to choose further tasks they would like and are capable to work on.

Scope limits

Scope limits define how the workload is limited in the agile methodologies. In Scrum-ban, the work in progress limits define the scope of work. Therefore, if the maximum number of tasks in progress is three, the team members cannot work on more tasks than three at the same time.



2. PLANNING, ESTIMATION, AND PERFORMANCE METRICS

Planning routines

Planning routines define how the work is planned during the process and when the planning sessions take place. Scrum-ban as well as Kanban does not prescribe a precise planning routine. Therefore, the teams can choose to plan when they run out of backlog items. That planning technique is called planning on demand. When the backlog items are completed the team plans for the new ones.

Estimation

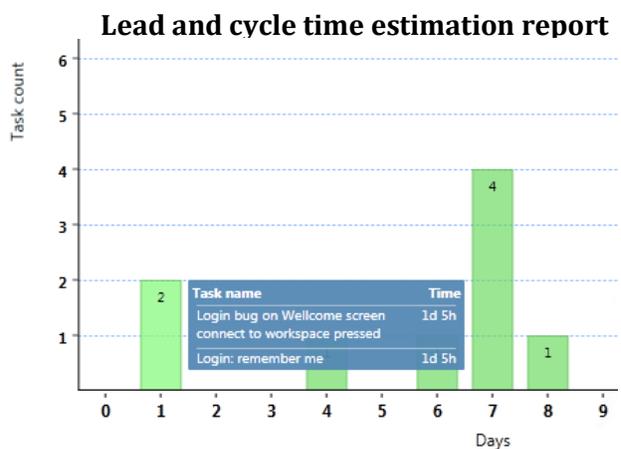
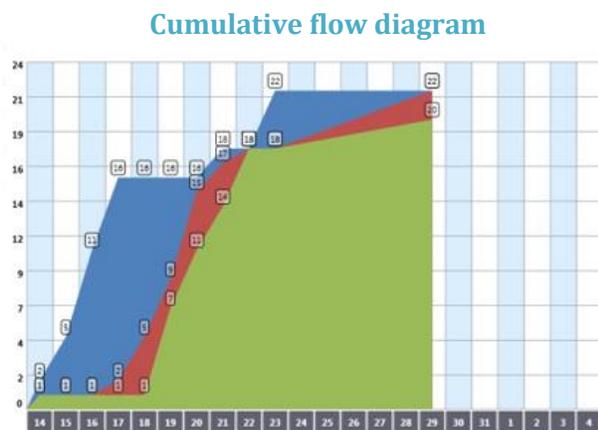
Estimation is the process of determining the time required to finish each item. In Scrum-ban estimation of the item duration is optional. After an item is complete, the team members simply pull the next item from the backlog and proceed with implementing it. Some teams still choose to carry out the estimation in order to have more predictability. Alternative approach to achieve predictability is to make sure that each of the items is of the same size, and therefore can be completed in the same amount of time.

New items in iteration

Agile methodologies also define how new items are added to the iteration. Scrum-ban allows adding new items whenever there is enough capacity in the queue. Therefore, Scrum-ban is very useful for functions with continuous flow of new items.

Performance metrics

Scrum-ban as well as Kanban uses average lead and cycle time as its key metrics. The performance is measured via the cumulative flow diagrams and by estimating lead and cycle time. Cumulative flow diagram shows the total items that are in progress, as well as the time it takes to complete them. Average lead and cycle time estimations shows how much time, on average, does it take to manufacture and deliver one item. Examples of the lead and cycle time estimations report and cumulative flow diagram are below.



3. ROLES, TEAM MEMBERS AND MEETINGS

Roles

Scrum-ban does not have clearly defined roles for team members – so the roles may vary and it is up to the team whether any roles should be used at all.

Team members

Generally, Scrum-ban is a methodology where the team can be either specialized or cross-functional. That is because Scrum-ban combines both – Scrum and Kanban methodologies functions. Team member's cross-functionality in Scrum and their specialization in Kanban are explained below in detail.

Scrum is a methodology where the team members can be cross-functional. While there is no precise definition on what it is, the team as a whole should have the skills to complete the work within each of iterations. As Scrum is time-limited methodology, it often happens that some team members need to work on several types of tasks in order to complete the work during the sprint. On the other hand, in Kanban the team members' specialization or preference to tasks is preferred. Since the work is limited by work in progress, anyone with items in backlog can start working on another item as soon as they are finished with their own – which allows for specialization of the team members.

Ownership

Scrum-ban supports multiple team ownership. For example, different stages of the process can be owned by several teams – such as development team, quality assurance team, and others.

Meetings

In Scrum-ban meetings are optional. They can be avoided entirely, or agreed upon on a regular or on demand basis. The most common option of Scrum-ban meeting is short Kaizen event. It can be done from time to time in order to focus. Kaizen event is defined as short, breakthrough event where employees from several departments or teams examine a problem, propose solutions and implement changes. These events can be used in Scrum-ban as well as in Kanban from time to time, in order to solve issues or improve the process of work.

Continuous improvement

The approach to continuous improvement prescribes how the team makes changes and improves their work process based on the issues they encounter. In Scrum-ban continuous improvement is optional. However, as mentioned above, short Kaizen events can be used for this purpose as well.

4. BOARDS, RULES, AND PRIORITIZATION

Boards

While Scrum task board is defined and reset each sprint in Scrum-ban as well as in Kanban, board remains persistent and is not reset, as there are no pre-set periods for backlog item completion.

Prioritization

In Scrum-ban prioritization is recommended during each planning. On the other hand, in Kanban prioritization is optional while in Scrum prioritization is done through backlog.

Rules

While Scrum is the most restrictive process of those three methodologies and Kanban on the other hand, has only a few constraints and is a fairly flexible process, their mix – Scrum-ban has a slightly constrained process and falls in between the two.

SCRUM-BAN ADVANTAGES AND WHO SHOULD USE IT

Scrum-ban advantages

As it is mentioned above Scrum-ban methodology became so popular today because of its ability to increase efficiency of project management without consuming precious project development time and decreasing project management team flexibility. One of the most valuable advantages of Scrum-ban is ability to save time. Contrary to Scrum where a team must organize daily meetings, spend a lot of time on tasks estimations etc., Scrum-ban offers to save time and take an advantage by using planning on demand technique. When using Scrum-ban the team plans only when there is a demand and for this reason team members get additional time for direct project development. Saved time on planning allows team to focus on quality control and manufacturing process. For example, if something ill-formed is found, then it gets bounced and troubles are eliminated, after that process is repeated once again. What is more, Scrum-ban increases waste minimization efficiency. Scrum-ban uses inter-process buffers and flow diagrams to show weaknesses and opportunities of the process. With this feature the team has an opportunity to eliminate everything that is not adding value to the customer. And most importantly, Scrum-ban limits the team's work in progress (WIP). Because of that reason project development team members can finish what they started as a high priority. To sum up, Scrum-ban decreases overhead stress for the development team, increase efficiency, and increase the overall satisfaction for the customer.

Scrum-ban board



Who should use it?

While all three methodologies can be used in a variety of settings, Scrum-ban is often used by fast-paced projects, as it combines the flexibility of Kanban with the basic features of Scrum. Therefore, it is often used in startups or, similarly to Kanban, where continuous product manufacturing is required. On the other hand, Scrum-ban is just a tool to make your project management processes more productive. That does not mean that Scrum-ban will solve all of your problems as it is both methodologies mix. Before making final decision which approach is better fits your needs you should understand the basic principles of all of them in order to make your working process more effective and productive.