Getting Started with Kanban

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kanbanery

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Finding ways to do things more efficiently is becoming a necessity - no matter what business you're in. Lean is a general term for finding ways to eliminate waste and increase efficiency. While Lean methodologies were developed in manufacturing environments, many Lean principles can be applied to any kind of business or activity; from software development to accounting systems to household chores.

Most people familiar with Lean see it as a toolbox that contains a variety of tools. Different tools can be applied according to the activity or process, or according to the problem to be solved. Even better than most conventional "tools" Lean methods can also be easily adapted or modified as needed. One very useful and popular Lean tool is known as kanban.

What is Kanban?

Most projects can be viewed as a process - a series of steps or tasks that achieve some desired result. There are all kinds of processes - simple and complex, individual and team, quick and time-consuming. Sometimes large or over-arching processes consist of a series of smaller processes.

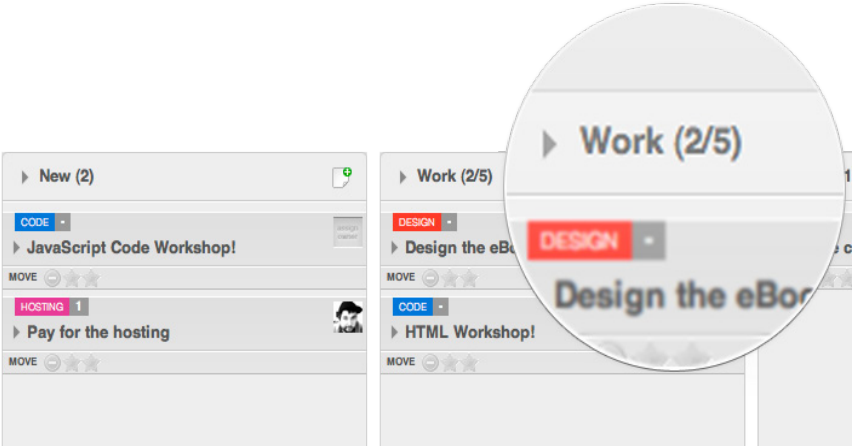
Kanban is a tool for managing the flow of materials or information (or whatever) in a process. Not having the materials, whether it is a part, a document, or customer information, at the time you need it causes delay and waste. On the other hand, having too many parts on hand or too much work in process (WIP) is also a form of waste. Kanban is a tool to learn and manage an optimal flow of work within the process.

There are three basic rules to implementing Kanban:

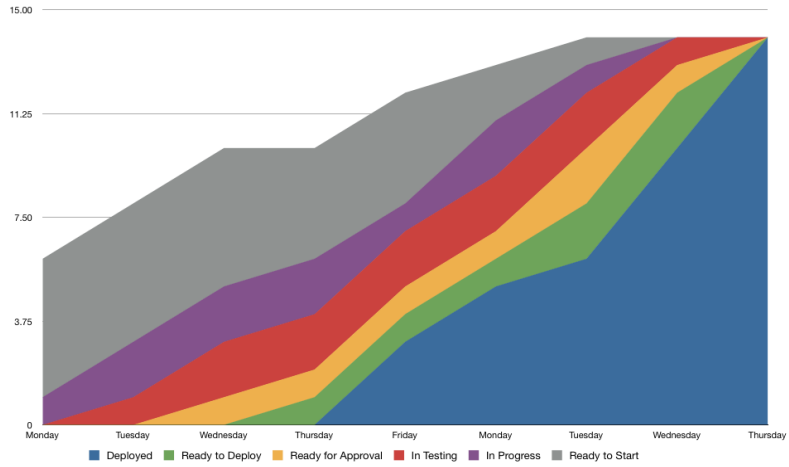
01. **Visualize Workflow** - A visual representation of the process lets you see exactly how tasks change from being "not done" to "done right". The more complex a process is, the more useful and important creating a visual workflow becomes, but kanban can be used if there are just a few steps (do, doing, done) or a lot of steps (plan, design, draft, approve, schedule, implement, test, integrate, deploy). However complex the

project may be, creating a kanban board allows you to see the status of the work being done at a glance.

02. **Limit Work in Process (WIP)** - Get more done by doing less. It may seem counterintuitive, but it is a powerful idea that has been proven time and time again to be true. There is a limit to the number of things you can be working on and still do them well, and that limit is often lower than you think. Whether a project is simple or complex or whether the team is small or large, there is an optimal amount of work that can be in the process at one time without sacrificing efficiency. It's not uncommon to find that doing ten things at once takes a week, but doing two things at once takes hours, resulting in twenty things being done by the end of the week. Kanban metrics lets you find that optimal number.



03. **Measure and Improve Flow** - Improvement should always be based on objective measurements, and kanban is no different. Finding and applying good metrics is usually a difficult step, but a few simple measures automatically generated by an application like Kanbanery can give you the information you need to tweak your process to optimize flow and maximize efficiency.



One of the great things about kanban is that you apply it to your existing process. You are simply identifying ways to improve what you are already doing, so you don't have to start from scratch and you don't have to worry about "throwing the baby out with the bath water" - meaning that you won't lose the things you are already doing well. No sudden changes means there is minimal risk in applying kanban as part of your improvement journey.

Using Kanban

While kanban may have started on the factory floor, its principles are useful in almost any process. But anyone interested in using kanban usually has some questions.

Does Kanban apply to me?

Architects use kanban to design and build buildings. Programming teams use kanban to code and debug software. Students use kanban to manage their homework. Families use kanban to organize household chores. Sales teams use kanban to coordinate the sales process. Executives use kanban to organize their personal and work lives.

If it is more complicated than tying your shoe, kanban and tools such as Kanbanery.com can make it simpler.

How can it help me?

Are you busy and yet nothing seems to get done? Do you feel like your process isn't as efficient as it could be? Is it hard to answer questions such as:

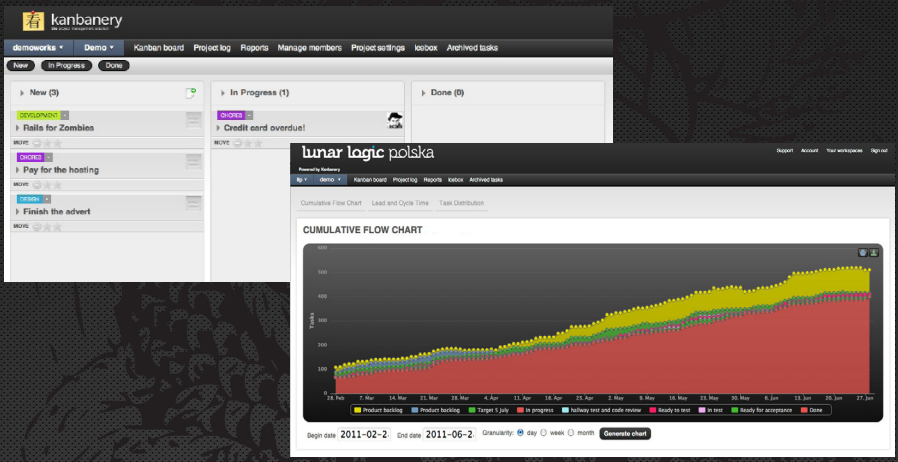
- Where are we now?
- When will it be done?
- Who is working on what?
- What should I be doing now?

Providing answers to critical questions like these, which in turn leads to improvement and eliminating waste, is one important way that using kanban can help.

What will I have to change?

The great thing about adopting kanban is that it does not mean overhauling your existing methods and processes. Kanban provides a way of visualizing what you are already doing then identifying which parts of your current approach impact efficiency. You make incremental improvements to your existing processes. You don't have to change how you work until you have identified what will bring the greatest benefits and you are ready to make a change.

Go against the Waterfall.



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http://kanbanery.com

How Do I Get Started Using Kanban?

Frequently, the hardest part of any task is just getting started. Knowing which first steps to take is the key. Here is what you need to do to get started with kanban.

Map Your Workflow

The first thing to do is to identify the major processes in your department or organization, and then identify the steps in the individual processes. Where do tasks come from? How are they prioritized, defined, and assigned? What are the steps that it takes for an idea or a task to be complete and done right? This is your workflow. Each step gets its own column on the Kanban board.

Here are a few workflow examples:

- **Household Chores:** To Do - Doing - Done
- **Sales Pipeline:** Generate Lead - Qualify Lead - Sales Presentation - Proposal - Negotiation - Close / Write Contract - Follow-up, Support & Maintenance

- **Software Project:** Backlog - Requirements - Design - Development - Testing - Acceptance - Deploy - Support

It is important to understand that when you are documenting the steps of a process, document the existing process - not an ideal process or the process you would like to have. The starting point should be the process that actually exists in the real world. If there are inefficiencies, bottlenecks, or missing or unnecessary steps, they will come to light and the workflow can be modified as you learn what works best for you and your team.

Then, for each step, consider how many tasks you could be doing at once. For example, one plumber can probably fix one sink at a time. One programmer can probably only really focus on developing one feature at a time. However, one sales person can probably juggle three or four prospects at a time. These are your work in process limits, or WIP limits. You don't have to get them exactly right the first time; you can start with an educated guess. However, you don't want to start with them set too high or it will be more difficult to uncover inefficiencies.

If you have good team buy-in for change, then you start by setting them lower and create a more immediate challenge to become more efficient. By having lower WIP goals, "pain points" (bottlenecks, delays, etc.) in the process will be revealed more quickly, and discovering how to

improve will be faster.

However, a team that is more resistant to change is likely to ignore WIP limits that are too low, and learn nothing. Moderate WIP limits can let a team adjust to the idea of monitoring flow, and then WIP limits can be gradually lowered without as much stress or resistance to changes in the routine.

Once you have your workflow mapped, you can build your kanban board. The kanban board is a table that has one column for each step in your workflow. You can draw the table on paper, on a whiteboard, on a corkboard, or you can use an online tool like Kanbanery.com.

Visualize Work in Process

Once you have your process mapped and you have created your kanban board, you can start adding tasks to it. Tasks represent something that has to be done and something that is worth doing, plus they should have a name that everyone recognizes and understands. In addition, depending on the task and the process it is part of, you may want the kanban board to show or track other information such as:

- Creation Date
- Deadline
- Created by
- Priority
- Task Type
- Description
- Notes
- Definition or Requirements for "Complete/Finished"
- History

Plus, unless you are a team of one, it should probably show who is working on it now as well.

If you use an automated tool like Kanbanery.com, the information you want to track or to be visible is easy to configure, and most of it will be updated automatically.

Set Your Initial WIP Limits

In the beginning, it is hard to know the ideal amount of work in process for various tasks or processes. You have to start somewhere, however, so begin with the best guess. As described earlier, setting low initial limits can be painful, but will yield faster results, while setting high

limits initially and purposefully lowering them over time may have slower results, but it can help ensure buy-in and adoption with the team.

Another important facet of gaining buy-in is to involve the team in documenting and defining the process as well as setting WIP limits that the team is willing to enforce for each phase. Ensure that the team understands that limiting the number of things they are working on has two major benefits; 1) it reduces the time it takes to get any one thing done (lead time), and 2) it improves quality by giving greater focus to fewer tasks. Together these two benefits improve efficiency, so the team can get more done. Things not only get done faster, but also better than ever before, which means less rework.

Once you have set WIP limits for each phase of the process, write them above the columns on your kanban board that represent steps in the process. Now everyone is aware of the limits and they should make an effort not exceed them. A team may set rules regarding what to do it someone wants to break a WIP limit, like calling a team meeting to discuss the rationale for doing so.

Get Kanban Working

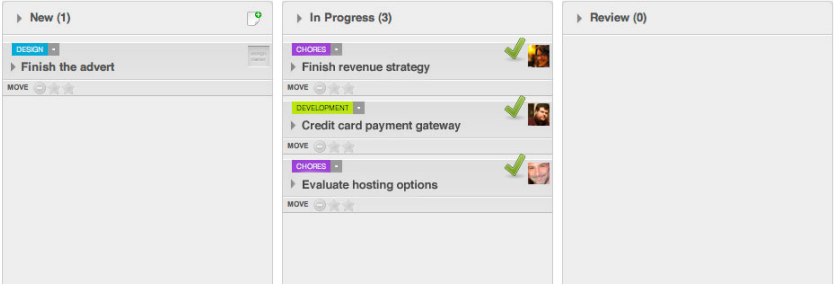
Kanban is a "pull" system. The term comes from the idea that one stage of the process pulls work from the previous stage, giving the signal to the previous stage to "make another one" (to borrow manufacturing terms). This approach limits WIP, as opposed to a "push" system, where

each stage works as quickly as possible and then pushes work to the next task – no matter how much WIP already exists.

In more general terms, pull means that when someone is ready to do work, they look on the board to see what needs to be done, and they pull their next task into the column representing the next step in the process. The task becomes their responsibility until they finish their step in the process and someone else pulls it into the next step. In an online application like Kanbanery.com, the task owner changes automatically to whoever pulled in the task so everyone can see at a glance what is being worked on, who is doing the work, and at what stage in the workflow every task is.

Look for Bottlenecks

Once a process is diagramed and the kanban board is set up, you can see at a glance where in the workflow every task is, and it makes it easy to see bottlenecks forming early. If your WIP limits are set well, you'll hit a limit just as a bottleneck begins to form. A bottleneck in your workflow looks like this:



Part of the power of kanban is that it makes it easy for everyone to see a problem forming. Early awareness of the problem means that a solution can be found before you have a large pile of partially completed work. Lots of incomplete work creates inefficiencies as people start jumping from task to task, losing clarity on what to do next and what is most important, and increasing the complexity of the overall workload.

Inspect and Adapt

It's not a requirement of kanban that you learn from your mistakes, but generally it's a good idea. Certain advantages come simply as a result of visualizing your workflow, but others require a bit more effort. Two powerful tools for tracking improvements are to know the lead time and cycle time. Lead time is basically how long it takes to get something done from the time someone asks for it until they receive it. Cycle time is how long it takes someone to finish a task once they have started it. A software tool like Kanbanery.com can do the math for you, allowing you to compare your metrics at various points in the process and see the results of your process improvements. Collecting and using this data allows you to answer important questions like 'If a customer asks for something, when will they have it?' or 'How long will it take to finish what we're working on?'

The team should make time to regularly review the metrics, reflect on what they've accomplished and how it felt,

and consider what changes to the process might yield further improvements. Kanban doesn't propose an ideal schedule for these meetings. The team could chose to do it once a week, once a month, after every release, or whenever a problem calls for corrective action.

Advanced Kanban Topics

Tasks have different risks and values associated with them, and by defining "Classes of Service" and policies related to them, you could change the way value is delivered. For example, in a software project, the class of service 'live site bug' could have agreed upon rules such as:

- It is a top priority
- It can break WIP limits,
- It can skip the design step
- It can be released without product owner approval
- It has an automatic same-day deadline

Since a live site bug has a high risk of impacting customers and the organization, resolving it has a high value. So the class of service for this problem is defined in a way to ensure it is a priority for fast resolution. Class of service is a powerful concept that can be implemented in an infinite variety of ways to optimize value delivery by a team.

After processes are defined and Kanban is implemented, make procedures explicit so they are easily understood. The people doing the work should be the ones who devise rules and agree on principles. Then established policies and procedures should be clear, specific, readily available,

and reviewed/revised regularly. Now that you have organized your workflow and created the proper documentation and tools, you are ready to begin the process of continuous improvement through defining, reflection, experimentation, and creating and managing metrics. Tools like Kanbanery.com can make improvement through implementing kanban faster and easier than ever before.

When you are ready to delve deeper into the science of kanban for process management, consider reading the following books.

- **Kanban** by David Anderson
- **Personal Kanban** by Jim Benson & Tonianne DeMaria Barry
- **Scrumban** by Corey Ladas