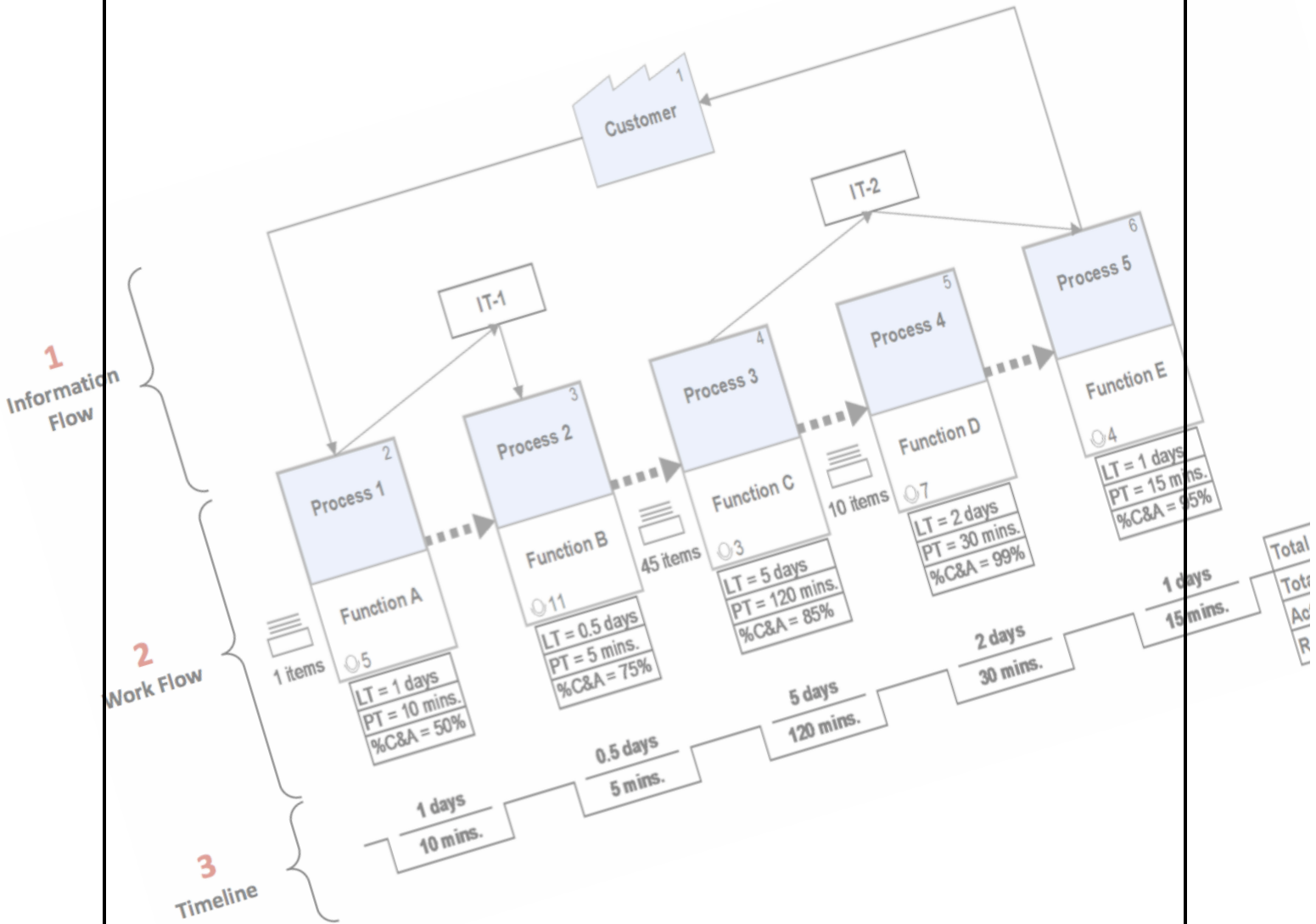


Value Stream Mapping Reference Pack



Six

Key Points | In Value Stream Mapping

1. A value stream comprises all the activities needed to deliver a product or service to an *external* customer. A support value stream comprises the activities needed to deliver a product or service to an *internal* customer. If you have a customer, you have a value stream.
2. A value stream map is a high level view of a process that crosses multiple functional silos. A business process map is a more detailed, tactical view of a process. If your map has swim lanes, you have a process map, not a value stream map.
3. Value stream mapping is a strategic activity, not a tactical exercise. Consequently, the participants must be leaders who have the authority to make significant changes in the value stream.
4. Value stream mapping is not simply about solving problems. Done properly, it improves communication, breaks down barriers between functional silos, and creates alignment within the leadership team.
5. It's critical to define all the parameters of the value stream clearly—starting point, ending point, specific conditions, etc.—before you begin mapping. Don't be afraid to narrow the scope beyond your comfort level. The vast majority of the improvements you'll want to make will apply to other conditions. (More on this in “Step 1: The Charter.”)
6. A value stream map must show information flow, workflow, and a comprehensive timeline.

The Charter | Getting everyone aligned.

Value stream mapping efforts often run into difficulty because of insufficient preparation. There's disagreement as to which value stream (or which segment of the stream) to map, who needs to be present, what specific conditions you'll address, and what you're trying to achieve.

A charter creates agreement and alignment before anyone steps into the conference room. It specifies all the issues mentioned above so that you're able to dive into the activity from the start. It also creates accountability by identifying the executive sponsor and the value stream champion.

You can choose a customer-facing value stream, a support value stream, or even a segment of a value stream (useful when dealing with a very long stream).

If you've chosen a value stream with predictable customer demand, you can calculate the "takt time" for the process. Takt time is the customer demand divided by the number of minutes or hours available to work. (Read more here: <http://bit.ly/1sGRDdd>.) Highly variable processes, or processes that span days or weeks, don't usually have a takt time.

Key Points

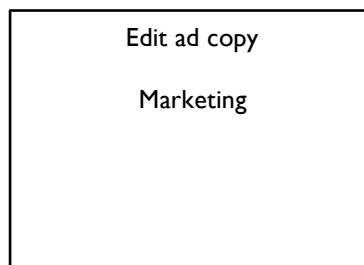
- Value stream mapping is a leadership activity. You will not succeed if you don't have an executive sponsor for the exercise, and you don't include high-level leaders in the activity.
- Keep the scope of the map narrow. For example, don't look at the hiring and onboarding process for all hires; map the process for hiring replacements in exempt positions. Or examine the product development process for daypacks, but not large, multi-day backpacks.
- Be clear about the problem you're trying to solve and the improvement you're hoping for. This clarity helps keep the team focused.
- Creating and socializing the charter with all affected parties (not just the participants, but the front line staff working in the value stream you're mapping) takes 1-3 weeks. Don't shortcut. Be sure that everyone signs off on the specifics before you begin.
- If appropriate, collect data during this time.
- The three days for value stream mapping must be consecutive. Spreading the three days over a week or more is a recipe for lost momentum and a waste of time.

Mapping the Current State | Where are we now?

The first day of value stream mapping is dedicated to understanding the current state—not how it “should” work, or how we “think” it works, but how it *actually* works.

You will document the current state by conducting two value stream “walks.” This involves leaving the conference room and actually walking through the office so that you can observe the work that’s being done and interview the people doing their jobs.

On the first walk, the goal is to get a high level view of the value stream. Pay attention to what inputs workers receive, where those inputs come from, who they pass work onto, and if the work stops at any point. Generally speaking, a process block is warranted when the work stops flowing because of a handoff to another area or a buildup of work-in-process. After returning to the conference room, determine which process blocks need to go on the map and in what order. Use 3x5 post-it notes and list the activity in verb-noun format, and the function or department. For example:



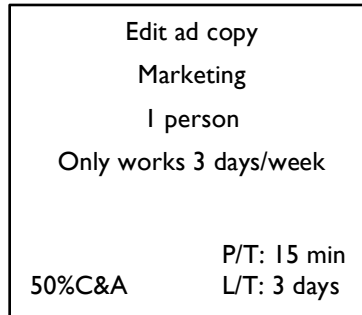
On the second value stream walk, the goal is to get more detailed information. Identify barriers to flow, the number of people in each process, the process time (P/T), lead time (L/T), and the percentage complete and accurate (%C&A) for each process.

Process time is the amount of time a step would take if the person doing the work could work uninterrupted and without having to clarify information or fix problems. Process time is often calculated in minutes or hours.

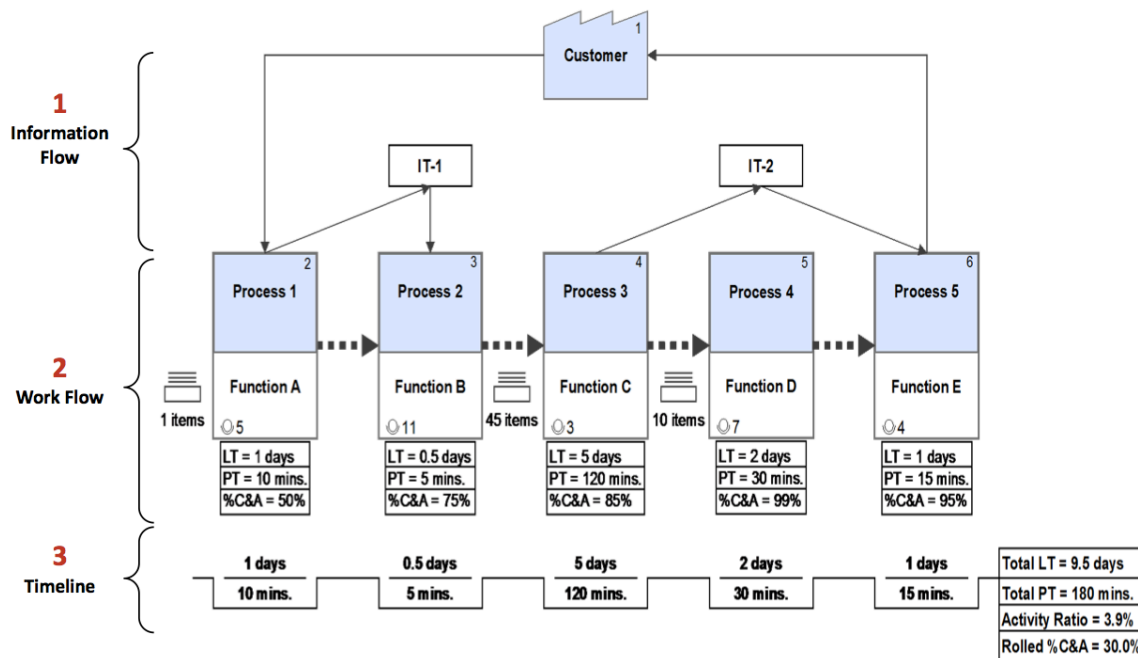
Lead time is the time it typically takes to actually get the job done, due to errors, interruptions, fire drills, etc. Lead time is often calculated in days or weeks.

The percentage complete and accurate is obtained by asking downstream steps what percentage of the time they receive work that’s “usable as is,” without needing to clarify, add, or correct the information they receive from the previous step. Only the downstream step can assess the %C&A of the preceding step, because it’s the customer.

The process time, lead time, %C&A, and any barriers to flow are put on each process block post it note as follows:



In addition to calculating the key metrics for each process block, you need to calculate the summary metrics for the value stream. *Add* the process time and lead time for each process block to get the total P/T and L/T. *Multiply* the %C&A for each process block to get the total for the value stream. Run the time line and summary metrics below the map:



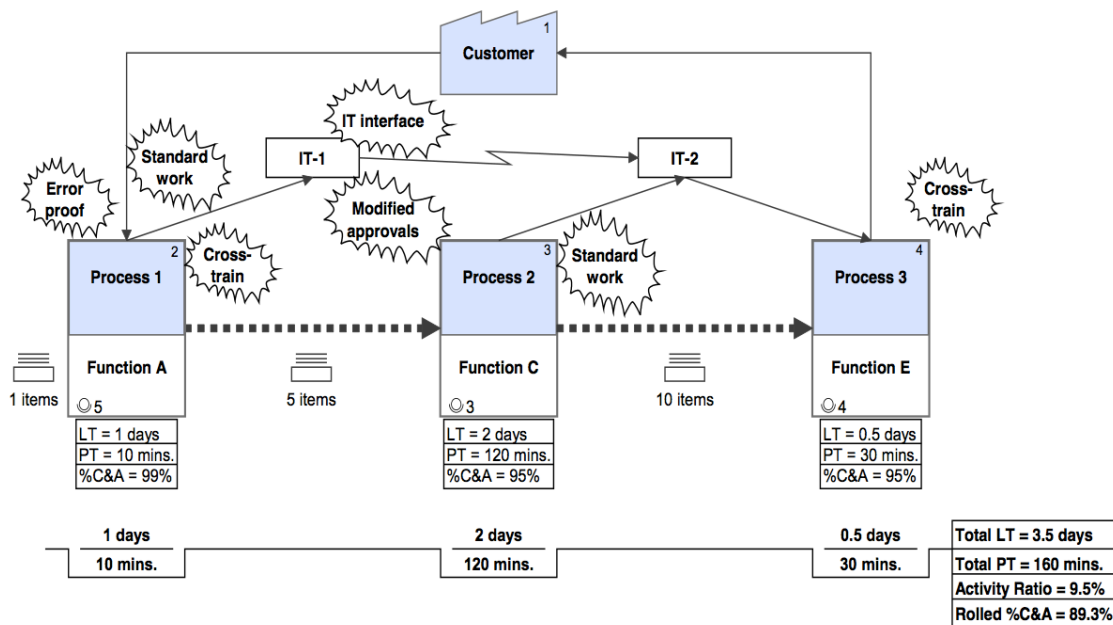
Key Points

- Don't try to fix anything during your value stream walks. If team members have ideas for improvement, write them down somewhere, but don't lose focus on observation.
- Map what happens 80% of the time. Don't worry about the occasional variation in process.
- It's often easier to see what's happening when you walk the value stream backwards.

Designing the Future State | Higher quality, shorter lead time.

Day 2 of the mapping activity is devoted to designing an improved future state.

Begin by reviewing the charter. This review reminds the team of the scope of the project and the desired results, and keeps the discussion from veering off into irrelevancy. Then put “kaizen bursts” with a description of the change in the relevant areas in which improvements can be made, as shown below:



In office environments, reducing handoffs within and between departments often provides the biggest reductions in lead time. This may involve eliminating non-value adding steps, or cross-training people to enable them to perform more than one function. Consolidating IT systems, or automating the data flow between them, is also hugely beneficial.

Think about what KPIs you can create to monitor the performance of the redesigned value stream.

Key Points

- Look for large discrepancies between P/T and L/T.
- Identify low %C&A processes and consider how to improve the ratio.
- Look for batch processing and large amounts of work-in-process.
- Don't focus on improving process time; focus on reducing lead time and improving flow.

Implementation Plan | More than just a Gantt chart

Most people are familiar with implementation plans. Of course, most projects don't actually proceed according to their plans, so it's worth reviewing the basics.

The plan should list the following:

- Action: what's being done? For example, moving from Excel to a database, or creating a template for job descriptions. It's useful to tie this action to the specific process block in the future state that it relates to.
- Purpose: why is it being done? For example, reduce the number of revisions by 50%, shorten lead time to one hour, or eliminate errors in data entry.
- Owner: who is responsible for the work?
- Timeline: when is the work being done? (usually listed in months)
- Status: a simple dashboard. Red/yellow/green, % complete, etc.

The plan should also include schedule review dates, to ensure visibility to senior leadership, and to increase accountability within the mapping team.

Key Points

- Identifying the “mode” of the improvement activity (project, multi-day kaizen event, etc.) is often helpful, particularly when dealing with multiple activities of varying complexity.
- Bring the front line staff into the development of the improvement plan. They will be doing much of the work, and they'll be more supportive and more engaged if they know what's being done and why.

About Markovitz Consulting

Markovitz Consulting helps sporting goods and outdoor industry companies improve their operational efficiency. Clients come to us when they need to:

- Improve business execution.
- Elevate service levels.
- Adjust to a new organization with fewer staff.
- Increase the amount of time people have for critical, value-added work.

About the Author

Dan Markovitz is founder of Markovitz Consulting. He is a faculty member at the Lean Enterprise Institute, and regularly teaches at the Stanford University Continuing Studies Program. He also runs a problem-solving workshop at the Ohio State University's Fisher School of Business.

Dan is a board member of the Association for Manufacturing Excellence, and speaks at national and regional conferences, including Outdoor Retailer and OIA Rendezvous.

He is a frequent contributor to the Harvard Business Review blog. His book, *A Factory of One: Applying Lean Principles to Banish Waste and Improve Personal Performance*, was published by Productivity Press received the Shingo Research Award in 2013. His new book will ten core principles of fit and resilient companies.

Dan's previous work life included nine years in the athletic footwear and outdoor industries, including three years running his own shoe company.

Dan holds an MBA from the Stanford University Graduate School of Business.

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