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Rocky Mountain Chapter



2018 YEAR IN REVIEW



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Value Stream Mapping- Base Camp for Process Improvement



With the new year and the construction slow down that often happens during winter, January is the time when construction companies begin process improvement initiatives, either on their own or with the aid of an outside consultant. Unfortunately, these initiatives often fail due to unrealistic expectations, loss of interest, or conflicting priorities once work gets busy again. To make process improvement stick, one must begin with a solid foundation, a clear understanding of the organization's current state. One way to identify and document this current state is by creating a Value Stream Map (VSM).

Why Create A Value Stream Map (VSM)

In mountaineering, climbers establish a base camp before making an attempt at the summit of a high mountain. This base camp is a safe place to inventory supplies and make final plans before scaling a difficult peak. In much the same way, a Value Stream Map, serves as the basis for beginning a large-scale organizational change initiative. It allows you to thoroughly understand your current state and gives you a roadmap for improvement. It also creates understanding between work departments who might understand their work process (sales, estimating) but do not understand the impact they have on downstream processes (prefabrication, field installation). Finally, a Value Stream Map enables everyone to visualize the work process the same way using the same language.

What is a Value Stream Map?

A VSM is a pen and paper tool that helps you see the flow of material, information, or a service through your organization as you create value for your customer. In any business there are four basic value streams:

1. Order to Cash – This is the flow of product or service from the time a customer places an order to the time the order is received and paid for.

2. Buy to Pay – This is the procurement process including identifying a need, placing an order, receiving an order, and the accounts payable process.

3. Hire to Retire- This value stream encompasses most of the human resources function including identifying a personnel need, recruiting, hiring, training, and employee retention.

4. Concept to Launch- This value stream encompasses those processes associated with bringing a new product or service market through proof of concept to launch.

In construction, most of our work flows through the order to cash value stream so this is often the best place to start.

Steps to Creating a VSM

First, you should identify the start and end points of your process. Every value stream should have a work step that initiates the work flow (example – order placed) and a clear ending to the value stream (invoice paid).

Once the scope of the value stream is identified, assemble a team to map the value stream. Ideally, the team should include members from different levels and different departments throughout the organization. It is also useful to include a "fresh set of eyes", a new employee or someone not familiar with current state processes who is not entrenched in the current way of doing business. Like all functional teams, this team should have clear guidelines including meeting times, attendance requirements, roles, and reporting out requirements.

Once you have established the team and its operating parameters, you are ready to begin mapping. Begin with the process that initiates your value stream and have members list all the individual work steps that are involved in that process. For example, an estimating process might include work tasks like scope verification, takeoff, material quotations, etc. This is often easiest to do using butcher paper and post it notes. If it is a large team, it is often most effective to do this work in silence and then read off each work step, discussing them and eliminating duplications. At this time, the team can also list any existing



templates, software, processes, or forms (collectively known as artifacts) that are used in executing these work steps. Sometimes, a team can get hung up on details or work steps that happen only in certain circumstances. Remember to focus on what happens most, or about 80%, of the time. Once you have reached consensus that all of the work steps are identified and documented, move on to the next process.

When you have documented all of the processes and associated work tasks in your "order to cash" value stream, you can then transfer the pen and paper VSM into an electronic format, as shown in the figure to the right. This VSM is now your base camp, or your starting point for process improvement.

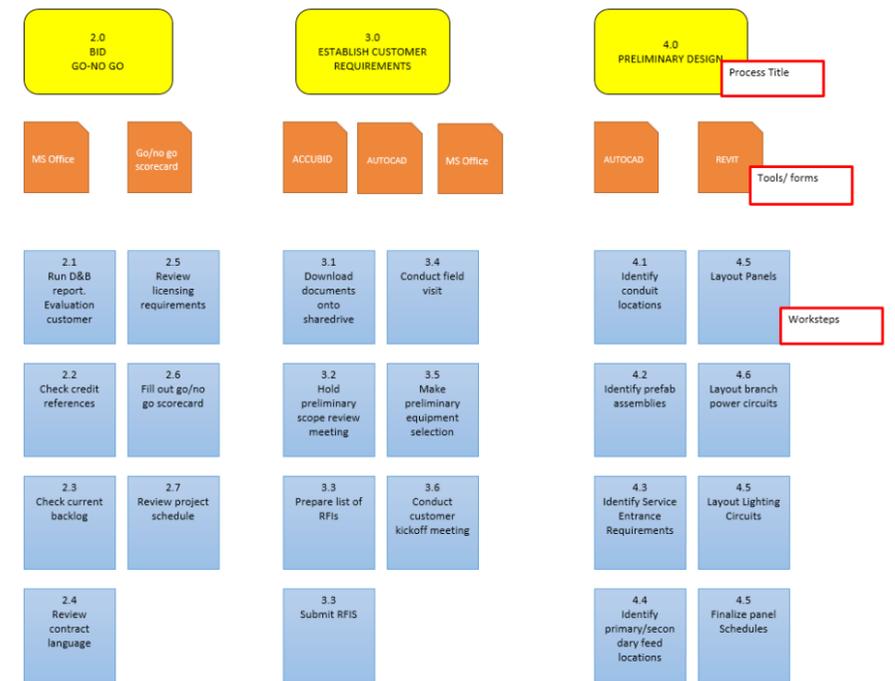
Now What?

Once you have established a current state VSM, you can use this as a roadmap to process improvement. You can go through each process and identify non-value-added activities like excessive reviews or duplicative data entry, and work to remove those activities from your value stream. You can also identify bottlenecks that prevent effective workflow. Finally, you can identify work steps that are not well defined or subject to too much variability in how they are executed and create standard processes to make these work steps more uniform. From this single document, you can plan which process improvement initiatives you are going to pursue and see how making these changes could impact later work steps. The team that created the VSM also now all have a shared understanding of how work flows in your organization, making them more valued employees that are better equipped to solve problems.

Summary

Organizational change is difficult and scary. Using a VSM will help provide a roadmap so that the change you seek makes sense and adds the value you desire. Value Stream Mapping is truly the base camp to process improvement.

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