Current State VSM

Overview of Module

Once a product family is identified the next step in the VSM roadmap has us creating a Current State Value Stream Map (VSM).

The Current State VSM is meant to capture the “as is” situation. A key point to remember is that a Current State VSM is neither good nor bad, it just is.

In other words, the team must document exactly what they see — no matter if they are happy with what they find. Will the process look a bit differently the next day? Probably. But that’s OK since value stream mapping is a dynamic process meaning we should be updating and adding to value stream maps long after they are first created.

All value stream maps should be documented in pencil since we'll be making frequent changes and modification to the maps as we spend more time with the process experts — meaning the people that do the work on a day to day basis.

Additionally, in order to create accurate value stream maps we must go to the gemba, or the place the work is actually done, in order to collect actual data.

8 Steps to Current State VSM’s

In order to create Current State VSM’s we will follow 8 steps:

1. Select Product Family
2. Sketch a Process Map in order to better understand the process
3. Draw in key customer information such as daily demand and takt time
4. Draw Process and Data Boxes
5. Draw Inventory Information
6. Draw Timeline and Calculate Process Cycle Efficiency (PCE)
7. Draw Information Flow
8. Stand Back and Study the VSM

Key Points

There are several key points to consider when creating current state value stream maps.

1. Draw what you see, not what you think you should be seeing.
2. Remember, current state processes are neither good nor bad.
3. Don’t worry about having perfect data on day 1. Some data validation can and should be done in the coming days and weeks.
4. Go to the Gemba, or the place the work is done!

Key Terms

- **Current State VSM**: A value stream map of the current “as is” situation.
- **Gemba**: A Japanese word that literally means “the place the work is done.” In the context of lean manufacturing we often state “Go to Gemba” which means we must go to the place the work is actually done in order to understand what is happening.
- **Value Added**: Describes any action or time that fulfills three criteria: 1) The customer is willing to pay for it; 2) The “thing” in question physically changes, and 3) It is done correctly the first time. If any of these three points is absent the process or time cannot be called value added.
- **Takt time**: The ratio of net available time over the average daily demand.
- **Cycle Time**: The time that describes how often a part is completed by a particular process.
- **Manual Cycle Time**: The time an operator is actually needed to process a part or perform some value adding action.
- **Automatic Cycle Time**: The time an operator is not needed to process a part or perform value adding actions.
- **Production Lead Time**: The time it takes one piece to travel all the way through the entire value stream.
- **Process Cycle Efficiency (PCE)**: The ratio of value added to non value added time. This is a key VSM performance metric.

Formulas

**Days of Supply (DOS)**: Amount of Inventory (in pieces) on Hand / Daily Demand

**Process Cycle Efficiency (PCE)**: Value Added Cycle Time / Production Lead Time