

Prerequisites

Identify a piece of work(feature, requirement, ...etc) that recently passed through your product development system(requirements through production delivery). We will use this to gather metrics about our product development system or value stream.

Agenda

1. Identify the work steps in the value stream
 - a. In between each work step add a "Ready" step.
 - i. This represents the time between when a work step is complete and the next work step begins.
2. Calculate the calendar time for each work step.
 - a. From work step start to work step complete(Dev start - Dev complete)
 - b. Example:
 - i. 5 days - Requirements Analysis
 - ii. 12 days - Development
 - iii. 3 days - Test
 - iv. 15 days - Operations and Deployment
 - v. ...etc.
3. Calculate actual time worked in each work step...time spent adding value to the identified work.
 - i. Not total time to complete
 - ii. Hands on keyboard time, meeting time directed for identified work.
 - iii. Example - requirement clarification, UI development, database schema change, unit test development, ...etc.
4. Identify time between work steps
 - a. Between each work steps add "READY" state.
 - b. Calculate time "READY" state time.
 - i. Time from work state complete until next work state begins.
5. Identify any loop backs required
 - a. avg number of loop backs
 - b. percentage of rework required on average
 - c. Example
 - i. Dev/Test loop back
 - ii. Avg = 2 loops
 - iii. 25% rework
6. Compute Process Cycle Efficiency(PCE)
 - a. $PCE = \text{Time Worked}(\text{value add}) / \text{Total Calendar Time}(\text{cycle time})$
 - b. PCE can be used to benchmark progress.