



Lean Project Management

The objective of Lean Project Management is to recover the substantial time and capacity wasted due to inefficient scheduling of projects and resources.

Where are time and capacity wasted today

- Work on critical path stops because resources are busy elsewhere
- Critical resources are idle, waiting for work to arrive
- People shuffling between tasks, instead of finishing one task before starting the next (multitasking)

The root cause for above inefficiencies lies in traditional project scheduling:

- Critical path keeps shifting because of uncertainty in project work
- Projects are scheduled independently of each other, even if they use common resources
- Task-level priorities are not provided in execution

How a Lean Project "Factory" works

Lean Project Management is made possible by a scheduling breakthrough called Critical Chain. It is comprised of three major elements:

1. **Time Buffers protect schedules from uncertainty.** Time buffers are unscheduled blocks of time inserted in projects where non-critical paths feed into the critical path. They act like shock absorbers and keep the critical path stable.
2. **Constraints Based Pipelining resolves resource contention across projects.** Projects are scheduled into the pipeline only after checking for availability at resource constraints - ensures that schedules are feasible and constraints are properly utilized.
3. **Buffer Management gives clear task-level priorities in execution.** Buffer consumption is monitored, and tasks feeding into "most empty" buffers are given first priority.

Agenda

SEPTEMBER 24

9AM - 12 PM: Executive Overview

- Where/how time and capacity are being wasted today in project execution
- How the new approach recovers the wasted time and capacity
- Simulation to compare normal project execution and Critical Chain results
- Brief software demo
- What kind of improvements can you expect in 90 days

12PM - 1PM: Semiconductor Case Study during lunch

Optional Section

1PM-4 PM: Implementation

- Success Stories
- Obstacles
- How to overcome obstacles
- Setting up (or redesigning) a lean Project Management Office

SEPTEMBER 25:

Exercises on managing a lean project operation. Only for those interested in hands on experience

8AM - 1 PM: Understanding the Cascade Effect

Project network Modeling

- Creating a robust network without getting bogged down in details
- Identifying critical chain
- Inserting buffers
- What ifs to optimize project network

Pipeline Optimization

- Identifying resource constraints despite poor data
- Quoting an aggressive, yet reliable due-date for new project

Buffer Management

- Updating status
- Taking proactive actions based on buffer signals by each role

1PM-4 PM: Discussions/Q&A

What are the benefits of each role?

How the new approach would impact each role?

Setting up a virtuous cycle of improvement

Similarities between theory of constraints and lean, six sigma

How to set up success criterion, how to measure them?

Other items as suggested by participants

Other Open items