

Background

This 2-day Kanban training class uses an interactive teaching method to help students gain an understanding of Kanban Pull Systems and how to apply them to the build, deploy and environment maintenance arena. Working in small teams, class attendees will analyze and design a kanban system implementation for a real world scenario.

What you will learn

- An introduction to Lean, Pull Systems and Kanban
- Visualizing value Streams
- Controlling Work-in-progress
- Implementing different classes of service
- Negotiating service level agreements with customers
- Implementing a culture of continuous improvement (Kaizen)
- How established industrial engineering theory can apply to operations
- Identifying variability
- Classifying bottlenecks as capacity constrained resources or non-instant availability resources
- Managing bottlenecks appropriately for improved throughput
- Understanding transaction and coordination costs in a kanban process
- Using Metrics and Reporting to drive continuous improvement

Introduction

- Introduction to kanban
- What is a kanban system
- Background of kanban systems for Operations
- Prescriptive versus incremental evolutionary approach

Demand Analysis for Initial Kanban System Design

- What are the types of work for your team?
- What is the daily, monthly, or seasonal demand for your team's time?
- What are sources of customer dissatisfaction?
- What are sources of internal dissatisfaction?

Value Stream Mapping and Tracking

- Defining customer-valued work items
- Value-stream mapping
- Work item tracking (manual and electronic)
- Standup meetings
- Kanban boards

WIP

Setting work-in-progress limits

Simulation Game

Hands on experience working with a realistic kanban system

Classes of Service

Types of work items
Emergencies and interrupts
Expediting
Policies for processing work items

Service Level Agreements

Striking a different bargain
Determining a service level agreement

Bottlenecks

Identifying bottlenecks
Capacity constrained resources
Non-instant availability resources
Improving throughput

Variability

How to identify and classify variability
Strategies to reduce variability

Scaling Kanban

Standup meetings
Two-tiered kanbans
Swim Lanes

Case Studies

A look at allocation and capacity for improvements
Handling complexity with reduced variability

Operations Review

Quantitative objective performance measures

Metrics and Reporting

- WIP - Cumulative flow
- Statistical Process Control (SPC)
- Lead Time
- Cycle Time
- Open Issues and Blocked Work Items

Kaizen Culture

- Meaning of Kaizen
- Trust and transparency
- Alignment
- Focus on Value Delivery
- Empowerment, Delegation (Self-organization)
- Objective Quantitative Management with simple Metrics

Summary

- Culture
- Policies
- Collaboration
- Continuous Improvement