1-Day

# Fundamentals of Manufacturing Systems Integration

## Description

This course provides a quick overview of systems integration in the manufacturing firm. It also provides a fast-paced overview of MAXiT, a proven approach to information systems planning and integration. Technical and managerial aspects of systems integration are covered, using examples from successful companies and installations.

Essential learning for those who are sponsoring or leading systems integration projects.

Note: Our standard group exercise involves CAD/CAM and machining. This can be substituted with an alternative from electronics, pharmaceutical, or batch process production.

## Objectives

- To improve the performance and lower the costs of manufacturing systems.
- To increase the strategic, business value of information technology.
- To help organize plant and company-wide implementation programs.

## Who Will Benefit

- Managers of information systems
- Plant and production managers
- Industrial engineers
- Systems analysts and developers
- Managers of advanced technology
- CAD/CAM managers
- Materials managers

## Timing

| | |
|---|---|
| Duration: | 1 day |
| Start: | 8:00 |
| AM Break: | 10:30 |
| Lunch: | 12:00 – 1:00 |
| PM Breaks: | 2:15 & 3:45 |
| Adjourn | 5:00 |

## Course Outline

**A. THE STRATEGIC VALUE OF SYSTEMS INTEGRATION**

- Flexibility, quality, speed.
- How leading companies profit from integrated operations and systems.
- How to set the right scope and direction for an integration program.
- Four strategies for integration: Which one is right for you?

**B. THE ANATOMY OF AN INTEGRATED SYSTEM**

- Group exercise and discussion of an integrated machining system.
- Links to engineering, production, and control.
- Links to external customers and suppliers.
- “Get rights” for successful integration.

**C. MODELING & DIAGRAMMING INTEGRATED SYSTEMS**

- Methods of visualization.
- Integrated (material & data) flow diagrams.
- Case exercise: diagramming information flow.

**D. TECHNOLOGIES & ARCHITECTURES**

- Alternative technical approaches to systems integration.
- What is a systems architecture?
- Systems standards and development environment.
- Transaction planning and data management.
- Using the Integration Index to control risk and cost.

**E. HOW TO ORGANIZE AND EFFECTIVE INTEGRATION PROGRAM**

- Typical approaches and pitfalls.
- MAXiT, a systematic approach.
- Phases, procedures, and conventions.
- Framework charts and how to use them.
- Integration teams and charters.
- Ten tasks for the integration steering committee.

**F. MANAGING FOR SUCCESS**

- Avoiding and controlling for risk.
- Techniques for rapid deployment.
- Summary and closing remarks.