

Standard PLM Certificate Program

Session Descriptions

Sessions 1 through 5 comprise the *Core Certificate of PLM Leadership*. Adding Sessions 6 through 9 to the curriculum completes the *Standard Certificate of PLM Leadership*.

Sessions 1a and 1b—Introduction to PLM

Duration: 1 day

Prerequisites: None

Intent: The scope of this 7-hour session includes the presentation of today's view and vision of the global PLM market and technologies. The overall intent of the session is to provide a broad overview of the PLM market, including trends, system architectures, and critical elements of success. This session will include presentations, discussions, and a set of interactive exercises.

Session Outline:

- *Session Introduction*
A discussion of the PLM market status, including recent history, today's facts and figures, and some market trends that can help an attendee understand the market's evolution. These include system sources, types of implementations, scope of implementations, sources of investment, etc.
- *Elements of a PLM Solution*
Definition—A definition and description of a PLM solution, what it is and how its various components fit together. This provides a broad definition for PLM, and positions PLM with regard to other related technologies, such as CAD, software engineering, and ERP/MRP II tools.
Functionality—A description of the functionality required to support PLM. This includes a description of the functional areas that make up typical PLM solutions and a discussion of each of them; what they are and how they work, what they are used to achieve, examples of how they are supported in commercial and private PLM systems.
Architecture—A discussion of issues related to the architectures of PLM solutions, including distributed system operational requirements, user interfaces, applications interfaces, platform issues, service oriented architectures, etc.
- *The Expanding Reach of PLM*
This discussion introduces PLM's key expansion areas. These include functional areas of an extended enterprise where PLM has yet to be applied or where PLM has recently begun to show applicable benefits. Some of these areas include: portfolio management, requirements management, digital manufacturing, mechatronics, and simulation and analysis.
- *An Introduction to the PLM Commercial Landscape*
This discussion provides an overview of the commercial landscape for PLM solutions, including a review of leading PLM solution suppliers and their offerings. This session will describe today's "mind-share" PLM solution suppliers with a specific focus on the PLM solution suppliers that support the region in which the Certificate Program is being delivered.
- *PLM Benefits*
This discussion provides an overview of the types and magnitude of benefits that can be achieved through the proper adoption of a PLM strategy and supporting technologies. This session will include the review of a selected set of actual benefit examples from various industrial companies.
- *Best Practices for PLM Strategy Definition & Solution Selection*
This discussion provides a set of high-level guidelines for developing a PLM strategy and executing a solution evaluation and selection. Ideally, these best practices help organizations reduce the time it takes to get to implementation, identify and quantify associated risks, and better manage and control project costs.
- *Best Practices for PLM Deployment, Monitoring, & Continuous Improvement*
This discussion provides an overview of the main activities associated with the successful deployment, monitoring, and continuous improvement of a PLM solution.

Session 2—PLM Benefits and Potential Value

Duration: 1/2 day

Prerequisites:

- Session 1: Introduction to PLM

Intent: This half-day session reviews industry metrics used to measure and monitor the benefits of PLM implementations. Areas of potential PLM benefits will be presented by discussing results achieved by various companies that have implemented PLM. These case studies are taken from published literature and CIMdata's researched case studies. The focus of the session will be to describe how metrics should be used to help define a company's PLM strategy, define the company's PLM roadmap, select the most appropriate PLM enabling solutions, and much more.

Session Outline

- Potential Benefits of PLM
- Defining & Measuring the Costs of PLM
- Measuring the Value of PLM
 - Methods for measuring value, e.g., ROI
 - The importance of metrics
- Introduction to a Benefits Appraisal Methodology
- Using Metrics to Steer a PLM Program
- Selected PLM Benefits Case Studies

Session 3—PLM Strategy & Solution Definition

Duration: 1/2 day

Prerequisites:

- Session 1: Introduction to PLM
- Session 2: PLM Benefits & Potential Value

Intent: This half-day session provides a set of detailed guidelines for PLM strategy development and solution definition. When properly followed, these guidelines will help an organization reduce the time it takes to define and create a PLM solution strategy.

Session Outline:

- Introduction to PLM Strategy Development
- High-Level Planning
- Defining a Strategy & Tactics
- Defining Business Requirements
- Implementation Strategies

Session 4—PLM Solution Evaluation & Selection

Duration: 1/2 day

Prerequisites:

- Session 1: Introduction to PLM
- Session 3: PLM Strategy & Solution Definition

Intent: This session provides a set of detailed guidelines for evaluating available solutions and selecting appropriate solutions to support a company's PLM strategy. When properly followed, these guidelines will help an organization reduce the time it takes to select the right solution for their organization.

Session Outline:

- Evaluation of Available PLM Solutions
- Selecting an Appropriate PLM Solution
- Developing True Business Requirements
- Developing Technical Requirements
 - How to translate business requirements into technical requirements
- Developing Benchmark Scenarios
- How to Select the Most Appropriate Solutions
 - How to evaluate solutions against requirements

Session 5—PLM Implementation, Monitoring & Continuous Improvement

Duration: 1/2 day

Prerequisites:

- Session 1: Introduction to PLM
- Session 2: PLM Benefits & Potential Value
- Session 3: Strategy & Solution Definition

Intent: This half-day session provides a set of detailed guidelines for implementing and evolving a PLM environment. When properly followed, these best practices will help an organization reduce the time it takes to identify and quantify associated risks and better manage and control project costs from the project concept phase through implementation and organizational adoption.

Session Outline:

- Organizing the Program
- Key Roles & Responsibilities
- Project Management Practice Areas: scope, risk, quality assurance, and others as appropriate
- Initiating & Planning the Deployment Project
- Program Execution & Control
- Monitoring & Improving the Program
- Transition to On-going Support & Evolution

Session 6—PLM Process Development & Testing

Duration: 1/2 day

Prerequisites:

- Session 1: Introduction to PLM
- Session 2: PLM Benefits & Potential Value
- Session 3: Strategy & Solution Definition
- Session 4: PLM Solution Evaluation & Selection
- Session 5: Implementation, Monitoring & Continuous Improvement

Intent: This half-day session provides an understanding how to best define, implement, and continuously improve PLM enabled processes. The session will also present best practices for testing the process enabling PLM solutions.

Session Outline:

- Introduction
- Refinement of Process Requirements
- Development of Process Flows & Use Cases
- System Testing (software development lifecycles and the type of testing required, user acceptance testing, test management, etc.)
- Process Ownership & Continuous Improvement

Session 7—Integrating PLM within the Enterprise

Duration: 1/2 day

Prerequisites:

- Session 1: Introduction to PLM
- Session 2: PLM Benefits & Potential Value
- Session 3: Strategy & Solution Definition
- Session 5: Implementation, Monitoring & Continuous Improvement

Intent: This half-day session focuses on PLM's role within an enterprise's overall information technology architecture (both process and data) and how to best approach the integration of various PLM solutions (e.g., via the implementation of a service oriented architecture), especially PDM technologies, with other enterprise IT systems, e.g., ERP, CRM, etc.

Session Outline:

- Introduction
- The Typical Enterprise IT Landscape
- PLM's Role in an Enterprise IT Landscape
- Integration Approaches that Work
- Other Issues to Consider

Session 8—Expanding PLM Across the Value Chain

Duration: 1/2 day

Prerequisites:

- Session 1: Introduction to PLM

Intent: This half-day session covers the next steps in implementing PLM inside and outside the company, to its supplier and partner community, providing access to its customers, to other functional areas outside of engineering and manufacturing operations, and distribute operations across the broader enterprise.

Session Outline:

- Defining the Value Chain
- Areas of Expansion
- Essential Issues for each Area
- Priorities & Steps for Expansion

Session 9—Configuration Management’s Role in PLM

Duration: 1/2 day

Prerequisites:

- Session 1: Introduction to PLM

Intent: This half-day session defines configuration management and how PLM can be used to enable it. The session provides an understanding of the various PLM-related configuration management elements (e.g., configuration items, options & variants, change management, and effectivity) and how a PLM solution can be used to support them. The session also reviews of a set of configuration management best practices and industry examples.

Session Outline:

- Introduction to Configuration Management
- Configuration Management Defined
- Processes & Related Requirements
- Best Practices Guidelines
- Industry Example