

# CIMdata PLM Certificate Program for Industrial Organizations and Systems Integrators

For more than 25 years, CIMdata has been working within the industry, which today is called Product Lifecycle Management (PLM). Our consulting services and research expertise is known around the world for its best practice-based content. CIMdata has leveraged its knowledge and experience to create CIMdata PLM Leadership—the PLM industry’s most comprehensive non-biased education and training offering for today’s PLM professionals.

*CIMdata PLM Leadership* is primarily comprised of a set of well defined, assessment-based PLM education and training certificate programs. These programs are delivered through a series of education and training sessions, and are intended to ensure that the individuals that participate in a PLM implementation project all have a strong understanding of PLM concepts and industry leading best-practices.

These certificate programs are available to industrial companies who are considering and/or implementing PLM, and to PLM technology and service solution suppliers. Additionally, these programs are offered in a number of different configurations, including the configuration described herein (please see [www.CIMdata.com](http://www.CIMdata.com) for additional detail).

## Public PLM Certificate Program

CIMdata’s Public PLM Certificate Program leverages CIMdata’s internationally recognized 5-day *PLM Certificate Program for Industrial Organizations and PLM Solution Suppliers*. This assessment-based certificate program satisfies the main PLM education requirements of medium and large enterprises. The program also satisfies the main requirements of PLM solution suppliers (i.e., PLM software and services organizations) and their employees who are responsible for providing PLM implementation services.

The Public PLM Certificate Program is delivered through a series of education and training sessions. All sessions are 3.5 or 7-hours in duration. Furthermore, the intent is to tailor the delivery of the program’s content, within the given time restrictions, to address any industrial specific issues impacting the attendees.

The certificate program is delivered over five (5) consecutive business days. Each day runs from approximately 8:30am to 4:30pm with one mid-morning break, a lunch break, and one mid-afternoon break.

The certificate program includes a combination of lectures, industry case studies, individual as well as group exercises, and tests. Each PLM Certificate Program session is limited to a maximum of participants, but no minimum number of participants is required.

### ***Targeted Audience***

The target audience for the Public PLM Certificate Program includes, but is not limited to the following:

- Business Mid-Level Managers
- Program Champions
- Business Subject Matter Experts
- Project Leaders
- IT Professionals
- IT Managers

All PLM Certificate Program attendees who have successfully completed this assessment-based program will receive a *Certificate of PLM Leadership* from CIMdata.

### ***Targeted Industries***

The Public PLM Certificate Program has been designed to be industry independent. However, industry-specific content (e.g., process discussions, examples, cases studies) can be easily added if the program is being delivered to a specific company and/or industry group.

### ***Certificate Program Outline***

**Day 1:** Session 1: Introduction to PLM

**Day 2:** Session 2: PLM Benefits & Potential Value

Session 3: PLM Strategy & Solution Definition

**Day 3:** Session 4: PLM Solution Evaluation & Selection

Session 5: PLM Implementation, Monitoring & Continuous Improvement

**Day 4:** Session 6: PLM Process Development & Testing

Session 7: Integrating PLM within the Enterprise

**Day 5:** Session 8: Expanding PLM Across the Value Chain

Session 9: Configuration Management's Role in PLM

### ***Delivery***

Two internationally experienced, senior-level CIMdata consultants will deliver all course material in English.

### ***Pricing***

The Public PLM Certificate Program cost is calculated per student per company represented. Pricing is as follows:

- First student sent by a specific company—US \$3,750
- Students #2 through #5—US \$3,450 each
- Students #6+—US \$2,950 each

All monetary figures are in United States Dollars.

### ***Notes***

- A maximum of 25 students can attend a Public Certificate Program session.
- Any travel expenses incurred by participants are the responsibility of the attendee and are not handled by CIMdata.
- Special prices are available for companies that would like the courses to be customized for their employees. These prices depend on the company's customization requirements, the number of people that will attend the program, and the agreed upon schedule.

# Session Descriptions

## *Session 1—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 the solutions 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 designed 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 analysis and simulation.
- *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.
- *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. This session will include the review of a selected set of actual benefit examples from various major industrial companies.
- *Best Practices for PLM Strategy Definition and Solution Selection*  
This discussion provides a set of high-level guidelines for developing a PLM strategy, and 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, and 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 & 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, select the most appropriate PLM enabling solutions, define the company's PLM roadmap, 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 an appropriate one 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 Define 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 solution.

**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 (e.g., via the implementation of a service oriented architecture) the integration of various PLM solutions, 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 will cover 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 includes the review 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