

SmartPlant Materials Smart Reference Data (SPMAT SRD)

COURSE CONTENT

GET IN TOUCH



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About Multisoft

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About Course

SmartPlant Materials Smart Reference Data (SPMAT SRD) Training is designed to help professionals understand how reference data is structured, maintained, and governed within the SmartPlant Materials / Smart Materials environment. The course covers coding structures, reference tables, standards, commodity data, catalog foundations, and validation processes that support consistent material descriptions and controlled materials data management. Participants will gain practical knowledge of SRD administration and learn how structured reference data helps improve material standardization, data quality, and operational efficiency across engineering, procurement, and materials management workflows..

Module 1: Introduction to SmartPlant Materials and Smart Reference Data

- ✓ Overview of SmartPlant Materials / Smart Materials
- ✓ Role of Smart Reference Data (SRD) in Materials Management
- ✓ Importance of Standardized Reference Data in EPC Projects
- ✓ SRD Scope and Business Relevance
- ✓ Relationship Between SRD and Smart Materials Modules
- ✓ Key Use Cases of SRD in Engineering and Procurement Environments

Module 2: SRD Architecture and Data Foundations

- ✓ Smart Reference Data Architecture Overview
- ✓ SRD Data Structure and Components
- ✓ Reference Data Layers and Organization
- ✓ Controlled Data Foundations in Smart Materials
- ✓ Relationships Between Reference Objects
- ✓ Understanding the SRD Administrative Framework

Module 3: Coding Structures and Reference Systems

- ✓ Coding Philosophy in Smart Materials
- ✓ Material Coding Structures
- ✓ Standardized Reference Codes
- ✓ Code Hierarchies and Logical Structures
- ✓ Classification-Oriented Coding Approaches

- ✓ Best Practices for Designing Controlled Coding Systems

Module 4: Reference Tables and Core Master Reference Data

- ✓ Understanding Reference Tables in SRD
- ✓ Managing Controlled Value Lists
- ✓ Reference Attributes and Descriptive Data
- ✓ Maintaining Common Data Dictionaries
- ✓ Organizing Standard Reference Information
- ✓ Validation of Core Reference Records

Module 5: Commodity and Material Reference Data

- ✓ Commodity Structure Overview
- ✓ Commodity Codes and Descriptions
- ✓ Material Grouping Concepts
- ✓ Reference Data for Material Identification
- ✓ Structuring Commodity Information for Smart Materials
- ✓ Supporting Standardized Material Descriptions

Module 6: Standards, Units, and Classification Data

- ✓ Managing Engineering and Material Standards
- ✓ Unit of Measure Reference Data

- ✓ Standard Specification Data
- ✓ Classification Structures in SRD
- ✓ Reference Values for Dimensions, Ratings, and Characteristics
- ✓ Consistency Management Across Standards and Units

Module 7: Catalog and Description Data Foundations

- ✓ Role of SRD in Catalog Standardization
- ✓ Description Logic and Material Description Foundations
- ✓ Reference Data Supporting Catalog Creation
- ✓ Attribute-Based Description Structures
- ✓ Standard Naming and Data Consistency Rules
- ✓ Data Preparation for Material Catalog Processes

Module 8: SRD Administration and Data Maintenance

- ✓ SRD Administrative Responsibilities
- ✓ Creating and Updating Reference Data Records
- ✓ Data Maintenance Procedures
- ✓ Version and Change Considerations
- ✓ Managing Controlled Updates in SRD
- ✓ Operational Best Practices for SRD Administration

Module 9: Validation, Governance, and Data Quality Control

- ✓ Reference Data Validation Concepts
- ✓ Data Governance Principles for SRD
- ✓ Approval and Review Practices
- ✓ Preventing Duplicate and Inconsistent Reference Data
- ✓ Quality Checks and Control Mechanisms
- ✓ Governance Best Practices for Enterprise Materials Data

Module 10: SRD Integration with Smart Materials Processes

- ✓ How SRD Supports Material Master Processes
- ✓ SRD and Procurement Data Dependencies
- ✓ Reference Data Usage in Inventory and Warehouse-Related Activities
- ✓ Interaction Between SRD and Material Lifecycle Processes
- ✓ Cross-Functional Data Consistency in Smart Materials
- ✓ Impact of Reference Data on Downstream Operations

Module 11: Reporting, Review, and Operational Support

- ✓ Reviewing Reference Data Structures
- ✓ Reporting on SRD Data Quality and Usage
- ✓ Monitoring Reference Data Completeness
- ✓ Supporting User Queries and Data Review Processes
- ✓ Operational Controls for SRD Management

- ✓ Audit and Traceability Considerations

Module 12: Real-World Use Cases and Best Practices

- ✓ SRD Use Cases in EPC and Industrial Projects
- ✓ Common Challenges in Reference Data Management
- ✓ Data Standardization Scenarios
- ✓ SRD Maintenance and Governance Case Studies
- ✓ Practical Approaches for Improving Data Consistency
- ✓ Best Practices for Long-Term SRD Management