

# Intergraph Smart® Materials (SMAT) Training

## *COURSE CONTENT*

### GET IN TOUCH



Multisoft Systems  
B - 125, Sector - 2, Noida



(+91) 9810-306-956



[info@multisoftsystems.com](mailto:info@multisoftsystems.com)



[www.multisoftsystems.com](http://www.multisoftsystems.com)

## **About Multisoft**

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Train yourself with the best and develop valuable in-demand skills with Multisoft Systems. A leading certification training provider, Multisoft collaborates with top technologies to bring world-class one-on-one and certification trainings. With the goal to empower professionals and business across the globe, we offer more than 1500 training courses, which are delivered by Multisoft's global subject matter experts. We offer tailored corporate training; project Based Training, comprehensive learning solution with lifetime e-learning access, after training support and globally recognized training certificates.

## **About Course**

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Intergraph Smart® Materials (SMAT) Training by Multisoft Systems is designed to provide professionals with comprehensive knowledge of materials management within engineering, procurement, and construction (EPC) environments. This course focuses on enhancing efficiency and accuracy in managing materials data across the entire project lifecycle.

## Module 1: Introduction to Smart® Materials

- ✓ Overview of Smart® Materials Suite
- ✓ Role in EPC / Plant Lifecycle
- ✓ Modules and Functional Architecture
- ✓ Integration with Smart Reference Data (SRD)
- ✓ Typical User Roles and Responsibilities
- ✓ Navigation through Smart Materials Interface
- ✓ Licensing and Access Controls
- ✓ Understanding the Project Data Model

## Module 2: Smart Reference Data (SRD) Essentials

- ✓ What is Smart Reference Data (SRD)?
- ✓ Reference Data Hierarchy – Commodity, Part, and Rule Data
- ✓ Library Structure and Reuse of Standard Data
- ✓ Creating and Managing Commodity Codes
- ✓ Specification Management
- ✓ Rule Manager and Relationships
- ✓ Units, UOM Conversion, and Dimension Tables
- ✓ Import/Export of Reference Data
- ✓ Linking SRD with Smart 3D / PDS

## Module 3: Material Management (MM)

- ✓ Overview of Material Management Module
- ✓ Bill of Materials (BOM) – Generation and Import
- ✓ BOM Revision Control and Change Management
- ✓ Requisition Preparation and Approval Workflow
- ✓ Material Take-Off (MTO) and Requisition Integration
- ✓ Required-On-Site (ROS) Date Planning
- ✓ Material Reservation and Release

- ✓ Linking BOM with SRD
- ✓ Reporting and Material Summary Sheets

## **Module 4: Requisitioning and Procurement**

- ✓ Overview of Procurement Lifecycle in Smart® Materials
- ✓ Types of Requisitions – Engineering, Field, Bulk, Project
- ✓ Inquiry and Bid Package Creation
- ✓ Supplier / Vendor Prequalification and Evaluation
- ✓ Technical and Commercial Bid Tabulation
- ✓ Purchase Order (PO) and Change Order Creation
- ✓ Price Basis, Terms, and Conditions Management
- ✓ Procurement Progress and Status Monitoring
- ✓ Linking POs to Project Budget and Cost Control

## **Module 5: Expediting & Inspection**

- ✓ Vendor Document Management
- ✓ Expediting Planning and Scheduling
- ✓ Purchase Order Line-Item Tracking
- ✓ Criticality Classification (A/B/C Items)
- ✓ Inspection Assignment and Coordination
- ✓ NCR (Non-Conformance Report) and Disposition Workflow
- ✓ Supplier Performance Measurement
- ✓ Expediting and Inspection Reports
- ✓ Integration with QA/QC Systems

## **Module 6: Traffic & Logistics**

- ✓ Traffic Overview and Workflows
- ✓ Shipping Instructions and Routing
- ✓ Shipment Registration and Package Tracking
- ✓ Containerization, Weights, and Dimensions

- ✓ Customs / Freight Documentation
- ✓ Air, Sea, and Land Freight Coordination
- ✓ Tracking of Over, Short, and Damaged (OS&D) Items
- ✓ Integration with Warehouse Receiving
- ✓ Traffic Reports and Analytics

## **Module 7: Site & Warehouse Management**

- ✓ Site Material Control Overview
- ✓ Site Inventory Management
- ✓ Material Issue, Return, and Transfer
- ✓ Warehouse Setup and Bin Locations
- ✓ Tag Numbering and Material Tracking
- ✓ Material Status and Availability Simulation
- ✓ Construction Work Package (CWP) Allocation
- ✓ Shortage and Surplus Handling
- ✓ Physical Stock Verification and Adjustment

## **Module 8: Subcontract Management**

- ✓ Overview of Subcontract Management Process
- ✓ Pre-Award Activities – ITT, Bidding, Evaluation
- ✓ Contract Award and Document Generation
- ✓ Progress Measurement and Claims
- ✓ Change Orders and Amendments
- ✓ Invoice Verification and Payment Approval
- ✓ Contract Closeout Procedures
- ✓ Subcontractor Performance Reports
- ✓ Integration with Procurement & Finance

## **Module 9: Reporting, Analytics & Dashboards**

- ✓ Overview of Smart® Materials Reporting Framework

- ✓ Standard Reports (Procurement, Expediting, Warehouse)
- ✓ Custom Report Designer
- ✓ Creating Interactive Dashboards
- ✓ KPI Metrics – Procurement Cycle Time, ROS Performance
- ✓ Exception & Alert Reporting
- ✓ Exporting Data to Excel / BI Tools
- ✓ Configuring Scheduled Reports
- ✓ Audit and Compliance Reports

## **Module 10: System Administration & Configuration**

- ✓ User Management and Access Rights
- ✓ Roles, Groups, and Permission Sets
- ✓ Project Creation and Activation
- ✓ Configuration of Number Ranges and Sequences
- ✓ Setup of Project Defaults and Parameters
- ✓ Data Migration and Backup
- ✓ Integration with External Systems (SAP, Oracle ERP)
- ✓ Security, Logging, and Audit Trails
- ✓ Version Upgrades and Patch Management

## **Module 11: Data Integration & Interface Management**

- ✓ Integration Architecture (API / Web Services)
- ✓ Connecting with Smart 3D, Smart P&ID, and SmartPlant Foundation
- ✓ ERP Integration with SAP / Oracle
- ✓ Import / Export Routines (XML, Excel, CSV)
- ✓ Handling Master Data Synchronization
- ✓ Validation and Reconciliation of Imported Data
- ✓ Interface Error Logs and Troubleshooting
- ✓ Secure Data Transfer Protocols
- ✓ Automation of Data Exchange Workflows