

Smart Reference Data (SRD) Training

COURSE CONTENT

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About Multisoft

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

Smart Reference Data (SRD) Training by Multisoft Systems is designed to equip professionals with the knowledge and skills needed to efficiently manage and standardize reference data across engineering and enterprise systems. SRD serves as a centralized platform that allows users to create, organize, and maintain consistent data definitions such as materials, components, and specifications across multiple projects and applications.

Module 1: Introduction to Smart Reference Data

- ✓ Overview of Smart Reference Data and its role in the Hexagon ecosystem
- ✓ Integration with Smart 3D, Smart P&ID, Smart Isometrics, and Smart Materials
- ✓ Architecture, database model, and key components
- ✓ Understanding Idents, Commodity Codes, and Specifications
- ✓ User roles and responsibilities in SRD
- ✓ Logging in, navigation, and UI overview
- ✓ Data consistency and governance principles

Module 2: SRD Environment Setup and Configuration

- ✓ Creating and managing projects and catalogs
- ✓ SRD administrator settings and configuration parameters
- ✓ Defining units of measure (UOM) and dimension tables
- ✓ Managing libraries, schemas, and environments
- ✓ Setting up user roles, groups, and access privileges
- ✓ Version control and environment backup strategy
- ✓ Importing and exporting configuration data

Module 3: Commodity Codes and Idents

- ✓ Definition and purpose of Commodity Codes
- ✓ Commodity code structure, rules, and conventions
- ✓ Creating and editing Commodity Codes
- ✓ Understanding and creating Idents (unique identifiers)
- ✓ Relationship between Commodity Codes and Idents
- ✓ Using the Ident Manager for creation, modification, and validation
- ✓ Rules for automatic Ident generation
- ✓ Avoiding duplication and ensuring data integrity
- ✓ Linking Commodity Codes to catalog and specification data

Module 4: Catalog and Part Data Management

- ✓ Overview of catalogs, parts, and attributes
- ✓ Creation of catalog items and commodity group hierarchies
- ✓ Defining geometric and non-geometric attributes
- ✓ Building datasets for parts and materials
- ✓ Using templates and predefined catalogs
- ✓ Validating and maintaining part data consistency
- ✓ Copying, revising, and merging catalog entries
- ✓ Importing catalog data from external systems (e.g., Excel, SAP)
- ✓ Catalog revision history and audit trail management

Module 5: Specification Management

- ✓ Role of specifications in design and procurement workflows
- ✓ Defining and creating specifications using SRD
- ✓ Building piping specifications from base materials and catalog data
- ✓ Linking specifications to commodity codes and rules
- ✓ Managing revision control and versioning of specifications
- ✓ Using the Specification Editor
- ✓ Validating specifications and rule checks
- ✓ Specification publishing and synchronization with Smart 3D
- ✓ Handling multi-discipline specifications (piping, structural, electrical, instrumentation)

Module 6: Rule Management

- ✓ Introduction to SRD rules and their importance
- ✓ Creating and managing rule sets
- ✓ Dimensional tables and unit conversions in rules
- ✓ Rule types: mapping, validation, and defaulting
- ✓ Rule Manager interface and workflow

- ✓ Assigning rules to specifications or commodity groups
- ✓ Testing and validating rules in design integration
- ✓ Import/export of rule definitions
- ✓ Troubleshooting and rule exception handling

Module 7: Integration with Smart 3D and Smart Materials

- ✓ SRD integration architecture with Smart 3D and Smart Materials
- ✓ Reference data exchange and synchronization process
- ✓ SRD data import/export to Smart 3D (bulkload process)
- ✓ Managing interfaces for Smart P&ID, SPOOLGEN, and Isometrics
- ✓ Handling attribute mapping and schema alignment
- ✓ Propagation of changes across tools
- ✓ Verifying successful integration using reports
- ✓ Troubleshooting interface issues

Module 8: Data Import, Export, and Automation

- ✓ Data import/export formats (Excel, XML, CSV)
- ✓ Bulkload utilities and templates
- ✓ Import validation rules and data cleaning
- ✓ Exporting commodity data to other Smart applications
- ✓ Automating imports via scripts or APIs
- ✓ Using Web Services for integration
- ✓ Scheduling and monitoring automated jobs
- ✓ Audit and trace logs of data transfer
- ✓ Error handling and reconciliation

Module 9: Reporting and Analytics

- ✓ Built-in SRD reports (commodity, specification, rule reports)
- ✓ Using SRD reporting tools
- ✓ Generating custom reports via SQL queries or BI integration

- ✓ KPI dashboards for data quality
- ✓ Exporting reports to Excel / PDF
- ✓ Tracking revision changes
- ✓ Exception and validation error reports
- ✓ Scheduling automated reports

Module 10: Administration and Governance

- ✓ System administration and project setup
- ✓ Access control and user management
- ✓ Data governance policies
- ✓ Version control and change management
- ✓ Data cleanup and archival process
- ✓ Backup and restore procedures
- ✓ Troubleshooting user and system errors
- ✓ Best practices for SRD maintenance and upgrades
- ✓ Migration strategy (from earlier versions)

Module 11: Advanced Features and What's New (v10.3 Highlights)

- ✓ Fluid Management functionality
- ✓ English–Metric Equivalence feature
- ✓ Auto-mapping of commodity codes
- ✓ Build Idents enhancements
- ✓ Generate Reports and Display Management
- ✓ Improved synchronization with Smart Materials
- ✓ Performance and usability enhancements
- ✓ SRD API updates and automation capabilities