multisoft
Systems

Bentley Open Rail Training

COURSE CONTENT

GET IN TOUCH

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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

The Bentley OpenRail Training program, offered by Multisoft Systems, is a comprehensive course designed to cater to the needs of the rail and transit industry. This program provides a globally recognized certificate upon completion, validating the comprehensive knowledge gained in both the course content and the market. The primary focus of this training is on Bentley OPEN RAIL, a holistic solution for the design, engineering, construction, and operation of rail and transit systems.

Module 1: Integrated CAD Capabilities

- ✓ Point-cloud Processing
- ✓ Scalable Terrain Modelling
- ✓ Geotechnical Integration
- ✓ Terrain Modelling

Module 2: Specialist Rail Geometry

- ✓ Turnouts
- ✓ Single, Double, Diamond Crossings, Single Slip, Double Slip
- ✓ Turnout application on curves, turnout bending
- ✓ Easy design of complex connections
- ✓ Regression
- ✓ Dynamic regression analysis
- ✓ Automatic sorting of point readings
- ✓ Horizontal and vertical regression
- ✓ Speed tables, speed assignment for different sections of the track
- ✓ Speed transition

Module 3: Cant calculation; equilibrium cant, applied cant, cant deficiency

- ✓ Cant diagram
- ✓ Rail joints
- ✓ Sleeper placement, long sleepers on turnout areas
- ✓ Swept envelope using curvature and cant values
- ✓ 3D representation of envelope for clash detection
- ✓ 2D projection of swept envelope

Module 4: Design rules and geometry-based calculations to determine foundation locations

- ✓ Span equation and span lookup tables
- ✓ Parametric 3D cells for structure calculations
- ✓ Full 3D model with structures and wires
- ✓ Schematic 2D representation of OLE system
- ✓ Profile drawings and quantity reports
- ✓ Rail signal library with asset tags
- ✓ 2D and 3D representation of signals
- ✓ Signal sighting analysis
- ✓ Interactively interrogate federated 3D models with dynamic cross sections
- ✓ Create model reports dynamically
- ✓ Generate plan ready cross sections

Module 5: 3D modelling

- ✓ Create 3D utility model relative to topography and alignments
- ✓ Create user-defined attributes for any required data
- ✓ Draw 3D models of utility structures as full 3D shapes for easy clash detection
- ✓ Hydraulic design and analysis
- ✓ User definable annotation tools for plan, profile, and section labelling
- ✓ Extract sections, drawings, and reports directly from completed 3D model