Training course on Digital Construction Platforms and Common Data Environments

Professional Development Training Course Outline

Category	Civil Engineering and Infrastructure Management	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Digital construction platforms and Common Data Environments (CDEs) are fundamentally revolutionizing the often fragmented and historically inefficient traditional construction industry. These integrated digital ecosystems serve as pivotal, central hubs for consolidating all project-related information, thereby enabling unparalleled seamless collaboration, ensuring data consistency, and providing transparent workflows across the entire project lifecycle?from initial design and meticulous planning to active construction and subsequent operational phases. Their transformative capacity lies in their ability to systematically break down pervasive information silos, significantly reduce costly errors, effectively mitigate project risks, drastically improve communication channels, and ultimately, enhance productivity and accelerate project delivery in an increasingly complex, data-intensive, and globally interconnected built environment. Training Course on Digital Construction Platforms and Common Data Environments (CDE) is meticulously designed to provide participants with the practical implementation skills and strategic understanding required to effectively utilize digital construction platforms and Common Data Environments (CDEs). The curriculum will cover the foundational principles of CDEs, guide participants through the evaluation of various commercial and open-source platforms, and equip them with the expertise to master essential data management protocols. A significant focus will be placed on implementing robust information management standards (e.g., ISO 19650), leveraging platform functionalities for meticulous document control, efficient model coordination, intelligent workflow automation, and real-time project insights. By blending critical theoretical foundations with extensive, hands-on exercises, this course will prepare participants to confidently establish, expertly manage, and strategically leverage CDEs to drive comprehensive digital transformation and achieve superior project outcomes.

Programme Curriculum

Training Course on Digital Construction Platforms and Common Data Environments (CDE)

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Course Objectives

Upon completion of this course, participants will be able to:

1. Analyze the fundamental concepts of digital construction and the transformative role of Common Data Environments (CDEs).
2. Comprehend the principles of information management and collaboration within a CDE framework.
3. Master various digital construction platforms and their functionalities for project delivery.
4. Develop expertise in establishing and configuring a CDE according to industry standards (e.g., ISO 19650).
5. Formulate strategies for effective document control, versioning, and approval workflows within a CDE.
6. Understand the critical role of model coordination, clash detection, and issue tracking in a CDE.
7. Implement robust approaches to data security, access control, and audit trails within digital platforms.
8. Explore key strategies for integrating CDEs with BIM software, project management tools, and other systems.
9. Apply methodologies for leveraging CDE analytics for performance insights and predictive capabilities.
10. Understand the importance of digital twin concepts and their integration with CDE data for asset lifecycle management.
11. Develop preliminary skills in navigating and utilizing common CDE interfaces and features.
12. Design a comprehensive information management plan for a construction project utilizing a CDE.
13. Examine global best practices and future trends in digital construction platforms and collaborative environments.

Target Audience

This course is essential for professionals seeking to enhance their digital construction and information management skills:

1. Project Managers & Coordinators: Responsible for overall project information flow and collaboration.
2. BIM Managers & Coordinators: Seeking to optimize model management and coordination within a CDE.
3. Construction IT Professionals: Implementing and managing digital solutions for construction firms.
4. Information Managers & Document Controllers: Overseeing project data and document workflows.
5. Design & Engineering Leads: Collaborating on digital models and design information.
6. Quantity Surveyors & Cost Managers: Accessing consolidated project data for estimation and control.
7. Asset Owners & Facility Managers: Interested in digital handover and operational data.
8. Construction Executives & Innovators: Driving digital transformation initiatives within their organizations.

Course Duration: 5 Days

Course Modules

- **Module 1: Introduction to Digital Construction and CDE Fundamentals**
  - Define digital construction and its key pillars (BIM, CDE, digital twins, automation).
  - Discuss the limitations of traditional information management in construction.
  - Understand the core concept of a Common Data Environment (CDE) and its benefits.
  - Explore the value proposition of integrated digital platforms across the project lifecycle.
  - Identify industry drivers for CDE adoption (e.g., efficiency, risk reduction, collaboration).
- **Module 2: Principles of Information Management and ISO 19650**
  - Comprehend the foundational principles of information management according to ISO 19650 series.
  - Learn about information containers, status codes, and revisions within a CDE workflow.
  - Master the process of information exchange, sharing, and publishing in a structured environment.
  - Discuss the roles and responsibilities of key parties in an information management framework.
  - Understand the importance of the Information Protocol and information requirements (EIR, AIR, OIR, PIR).
- **Module 3: CDE Platforms: Features and Selection**
  - Develop expertise in evaluating and selecting appropriate CDE platforms for construction projects.
  - Learn about various commercial CDE solutions (e.g., Autodesk Construction Cloud, Aconex, Procore).
  - Master the key features of CDEs: document management, model viewing, workflow automation, analytics.
  - Discuss open-source alternatives and custom-built solutions for specific needs.
  - Explore criteria for platform selection based on project scale, security, and interoperability.
- **Module 4: Data Management and Document Control within a CDE**
  - Formulate strategies for establishing robust data management protocols within a CDE.
  - Understand principles of file naming conventions, folder structures, and metadata management.
  - Implement robust approaches to document version control, revision management, and audit trails.
  - Discuss workflows for document submission, review, approval, and publishing.
  - Apply CDE features for efficient search, filtering, and reporting of project documents.
- **Module 5: Model Coordination and Collaboration in a CDE**
  - Understand the critical role of the CDE for effective BIM model coordination.
  - Implement robust approaches to uploading, federating, and viewing multi-disciplinary models.

    - Explore techniques for clash detection, issue management, and RFI (Request for Information) tracking.
    - Discuss workflows for design review meetings, markups, and commentary within the CDE.
    - Gain hands-on experience with model collaboration tools within common CDE platforms.
- **Module 6: Workflow Automation and Process Management**
    - Apply methodologies for automating common construction workflows using CDE capabilities.
    - Master techniques for configuring approval workflows for drawings, submittals, and changes.
    - Understand the integration of forms, checklists, and digital permits into the CDE.
    - Discuss the use of CDEs for automating progress tracking, quality inspections, and safety reports.
    - Explore the role of CDEs in streamlining procurement and contract management.
- **Module 7: Data Analytics, Digital Twins, and Handover**
    - Explore key strategies for leveraging CDE data for project analytics and insights.
    - Learn about dashboards, reporting features, and performance metrics within CDEs.
    - Discuss the concept of digital twins and how CDE data feeds into operational asset management.
    - Understand the process of digital handover of project information to asset owners.
    - Apply CDE data for predictive analysis, risk identification, and continuous improvement.
- **Module 8: Implementation Strategies, Challenges, and Future Trends**
    - Examine global best practices and successful case studies of CDE implementation.
    - Develop preliminary skills in planning for CDE adoption, change management, and user training.
    - Discuss common challenges: data migration, interoperability, user resistance, security concerns.
    - Explore emerging trends: AI/ML in CDEs, blockchain for trust, enhanced mobile access, industry standardization.
    - Design a strategic roadmap for driving digital transformation through CDE adoption in an organization.

Training Methodology

- **Interactive Workshops:** Facilitated discussions, group exercises, and problem-solving activities.
- **Case Studies:** Real-world examples to illustrate successful community-based surveillance practices.
- **Role-Playing and Simulations:** Practice engaging communities in surveillance activities.
- **Expert Presentations:** Insights from experienced public health professionals and community leaders.
- **Group Projects:** Collaborative development of community surveillance plans.
- **Action Planning:** Development of personalized action plans for implementing community-based surveillance.
- **Digital Tools and Resources:** Utilization of online platforms for collaboration and learning.
- **Peer-to-Peer Learning:** Sharing experiences and insights on community engagement.
- **Post-Training Support:** Access to online forums, mentorship, and continued learning resources.

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call +254769199797

Certification

Upon successful completion of this training, participants will be issued with a globally recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

- Participants must be conversant in English.
- Upon completion of training, participants will receive an Authorized Training Certificate.
- The course duration is flexible and can be modified to fit any number of days.
- Course fee includes facilitation, training materials, 2 coffee breaks, buffet lunch, and a Certificate upon successful completion.
- One-year post-training support, consultation, and coaching provided after the course.
- Payment should be made at least a week before the training commencement to Fineskill Training Center account, as indicated in the invoice, to enable better preparation.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Online	$1,000
23 Nov 2026	27 Nov 2026	Physical	$1,500
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$4,500
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$6,000

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