ISO-19650 and the Construction Cloud

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Safe Harbor

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Agenda

• Introductions
• Common Data Environment (CDE) – Overview and Benefits
• ISO 19650 CDE Requirements
• Choosing a CDE
• Deep Dive - ISO 19650 & Autodesk Construction Cloud
About the Speakers

Joan Allen

- 30+ years in construction & technology
- Product management leader
- BIM 360 Docs, BIM 360 Glue & Buzzsaw
- Registered Civil Engineer

Angela Yee

- 15+ years in architecture, construction & technology
- Senior Product Manager - BIM 360 Docs
- Registered Architect
Common Data Environment
"The Common Data Environment (CDE), is the single source of information used to collect, manage and disseminate documentation, the graphical model and non-graphical data for the whole project team.

BIM Wiki: https://www.designingbuildings.co.uk/wiki/Common_data_environment_CDE
Common Data Environment

“Creating this single source of information facilitates collaboration between project team members and helps avoid duplication and mistakes.”

BIM Wiki: https://www.designingbuildings.co.uk/wiki/Common_data_environment_CDE
Common Data Environment (CDE)
CDE: Connect Teams & Companies

Design Team

Construction Team

Owner: Capital Project Team

Contract Line
Why is a CDE Important?

- **30%**: Design and Construction data lost by project closeout

- **26%**: Construction professionals report none of their solutions integrate

- **52%**: Of all rework globally is caused by poor data and communication

- **13%**: Of all construction professionals’ working hours spent looking for data & information

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Benefits of a CDE

- Time Efficient
- Improved Quality
- Enhanced Collaboration
- Source of Truth
- Lowers Risk
Information Flow in a CDE

Shared ➔ Approved ➔ Work in Progress

Authorized ➔ Published ➔ Verified ➔ Archived
BIM Standards – Global Adoption

Currently

United Kingdom  Japan  USA  Australia  Finland  Denmark  Singapore  South Korea  Germany

Upcoming (these and more!)

Brazil  Colombia  France  Spain  Norway  China  Indonesia  Czechia  Peru
What is ISO-19650?

What it is
An international standard for managing information over the whole life cycle of a build asset using building information modeling (BIM)
What is ISO-19650?

Who developed it

The International Organization for Standardization (ISO) is a body of various technical committees that develops international standards for different sectors.
How is ISO-19650 Used?

How it is used

ISO-19650 defines the requirements, and the national annexes define the standards. Some governments are mandating ISO standards on public sector projects. Some private businesses are mandating ISO standards to standardize global business practices.
How is ISO-19650 Used?

Why it is relevant
The ISO standard calls for project data to be stored and managed in a certain way. As a result, customers are now looking for an ISO-compliant ‘common data environment’ to store and manage their project data.
ISO 19650 CDE Requirements

- Information Container Identification
- Classification
- Suitability Status
- Revision
- Transition of Containers
- Approval Workflows
Choosing an Effective CDE
CDE – What to Look For

- Easy to Use
- Accessible
- Integrated
- Standardized & Scalable
- Secure
## Autodesk Construction Cloud™

**Capabilities**
- Design Authoring
- Design Collaboration
- Model Coordination
- Model Conditioning
- Quantification
- Bid Management
- Qualification
- Project Management
- Cost Management
- Quality
- Safety
- Project Closeout
- Facilities Maintenance
- Asset Lifecycle

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<tr>
<th>CDE - Shared Data</th>
<th>Data</th>
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<tr>
<td>Models · Drawings · Issues · Specifications · RFIs · Cost · Assets · As-Builts</td>
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**Insight**

**Predictive Analytics & Risk Management**
- Executive Dashboards · Reports · Construction IQ · Data Connector

**Network**

**Builders Network**
Common Data Environment Pillars

- Core Workflow
- Design App Integration
- Federation of Data
Deep Dive: Docs as CDE

Permissions, Search, Audit Trail, Viewing, Markup, Issue Tracking, Dashboards & Reporting
Deep Dive: Docs as CDE

- Permission control
- Audit trail
- Document control & versioning
- Custom metadata
- Integrated with design workflows
- Design and office file viewing
- 2D & 3D viewing & compare
- Approval workflow
- Transmittals
- Markups and Issue Management
- Mobile access
- Reporting & analytics
Deep Dive: ISO Requirements

ISO 19650 UK National Annex

Document attributes: Customize

Naming convention:
- Project
- Originator
- Volume/System

Associated attributes:
- Status
- Revision
- Classification

Setup Naming standard
Deep Dive: ISO Requirements
Deep Dive: ISO Requirements

This folder is empty.

Drag and drop or upload project files.

Learn more about uploading documents.
Deep Dive: ISO Requirements

Check, Review, Approval Workflows
Future State of Autodesk Construction Cloud
To help construction teams meet the world’s rapidly expanding building and infrastructure needs, while making construction more predictable, safe and sustainable.
## Autodesk Construction Cloud™

### Capabilities

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<th>BUILD</th>
<th>OPERATE</th>
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### Shared Data

- Models
- Drawings
- Issues
- Specifications
- RFIs
- Cost
- Assets
- As-Builts

### Insight

- **Predictive Analytics & Risk Management**
  - Executive Dashboards
  - Reports
  - Construction IQ
  - Data Connector

### Network

- Builders Network
What we told you

**Continued Investment**
continue building and enhancing the champion features across all our core products

**Meaningful Integrations**
create integrations between these products so that they may more effectively be used together

**Unification**
build a unified platform where all champion features come together under a single log-in for seamless adoption of features across the full digital building lifecycle