

PROFESSIONAL INDEMNITY FORUM

CAMBRIDGE

JULY 2012

BUILDING INFORMATION MODELLING

Building Information Modelling

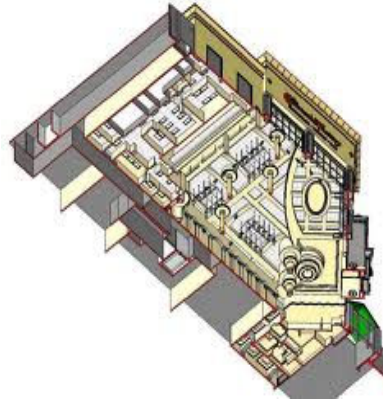
- What is BIM?
 - The levels of BIM
 - The incentive for its use
 - The contractual structure on a specific BIM project
 - The wider legal context of the use of BIM
 - The effect of BIM on the risks inherent in a project
-
- PI-inclusive project insurance
 - The existing limits on collaboration
 - The Information Manager

What is BIM?

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“A rich information model, consisting of potentially multiple data sources, elements of which can be shared across all stakeholders and be maintained across the life of the building from inception to recycling” (National Building Specification)

Objective – to integrate into a single model all project data and create a tool that can be used during construction, operation and maintenance



BIM Levels and 'Dimensions'

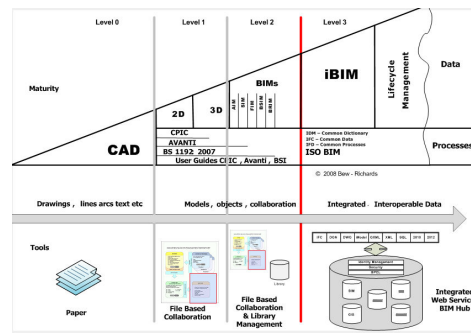
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LEVEL 0 - 2D CAD

LEVEL 1 - 3D model

LEVEL 2 - Managed 3D model held in separate software tools

LEVEL 3 - Fully integrated model



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The Motivation Driving BIM

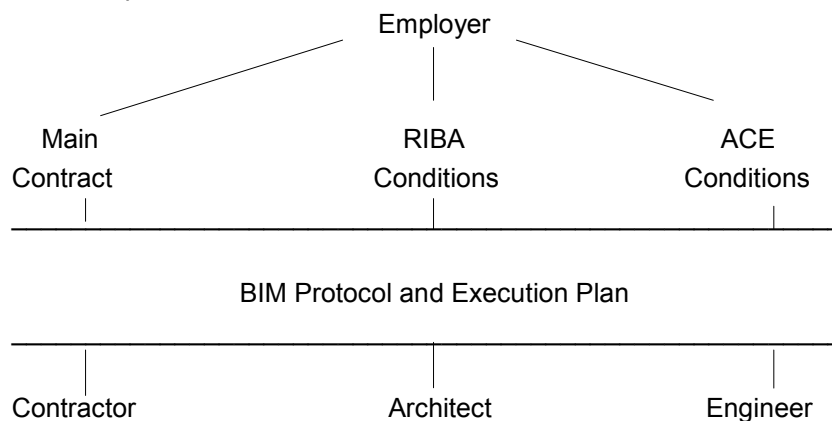
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- Government Construction Strategy (May 2011)
- Level 2 (managed 3D model) mandatory for all public sector projects by 2016
- Objective – to achieve 20% cost reduction during the term of the current Parliament

The Basic Contractual Structure of a BIM Project

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For example:



Wider Context of BIM – A Caricature

Contractual Term	The Ancient Regime	The Brave New World
General philosophy	Party responsibility within an "adversarial" relationship	Alliancing and collaboration
The Works	Contained in the tender drawings and specification	Contained in the Model
Payment	Price/Fee	Target cost + pain/gain, etc
Time	Period for Completion + diligence	Dynamic programming linked to the Model
Administration of Contract	Contract Administrator	Project team + Information Manager
Type of Insurance	Public liability/CAR + professional indemnity	PI-Inclusive project insurance
Standard of duty	Reasonable skill and care	??

The Effect of BIM on the Risks inherent in a Project

BIM should de-risk projects:

- Greater/earlier design certainty
- Greater/earlier project collaboration
- Clash/conflict detection

But ...

The Effect of BIM on the Risks inherent in a Project

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Old risks remain:

- Incomplete, late or inadequate design
- Design responsibility
- Client/Architect changes
- Lack of resources
- Quality of resources
- Etc, etc

New risks created:

- Ownership
- IP rights
- Model Manager role
- System malfunction

Some Professional Indemnity Issues Arising out of the use of BIM

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- Professional Indemnity-Inclusive Project Insurance
- The present limits on collaboration
- The Information Manager

Professional Indemnity – Inclusive Project Insurance

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General idea:

- Purchased by Employer
- No rights of subrogation between the project team (underpinned by an “alliancing” contract)
- Project excluded from insured Consultant’s fee income when calculating the premium on its annual PI policy

Not popular:

- Ties-up funds for ten years
- May be a form of selection against Insurers

The Limits on Collaboration

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BIM facilitates collaboration

Already collaboration in a design team

Contractual limits on collaboration

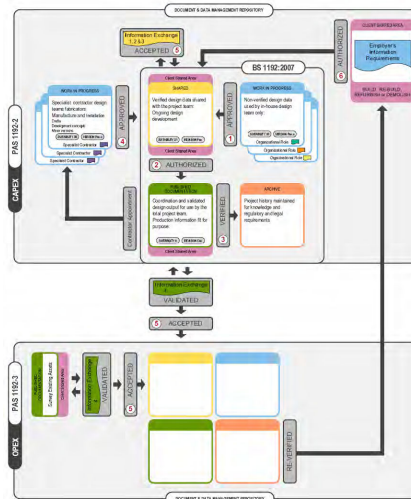
Common law limits on collaboration

Levels of Detail Building Element	1 (Scheme Design)	2 (Tender Design)	3 (For Construction Design)
Layout	Arch 1	Arch 2	Arch 2
Foundation	Eng	Eng	Eng
M+E	M+E Consultant	M+E Consultant	M+E Sub-Contractor
Etc			

The Information Manager

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- Range of duties
- 'Policies' the model
- Which Consultant?
- Transferred between Consultants?
- Loss of information
- IPR in information



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