

AECOM

Dave Lee MSc CEng MIET

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What is a Smart Building ?

- Answer = different things to different people
- No one answer !!! – Different for different companies and the respective stake holders.

Common Themes Include:

1. Security;
2. Data normalisation and acquisition;
3. Integrated platform with a single pane of glass.

IMPLEMENTING SMART BUILDINGS FOR USERS OWNERS AND OPERATORS

- **Users** looking for a better place to work, with high levels of wellbeing, hassle free, with improved communications and facilities
- **Building Operators** looking for ways to improve building efficiency
- **Building Owners and Developers** looking to reduce Capex and Opex costs whilst maximizing returns
- **We all benefit in different ways**



Smart Building Consultation is ...

- Consulting with end users and building owners to extend existing systems to provide smart functionality that meets the customers use cases.
- Consulting with developers to enable their smart building use cases and aspirations.
 - Understanding current technologies;
 - Understanding emerging technologies;
 - Providing specifications that enable the design intent to be delivered to our customers accurately.



Smart Building Design Specifications



- Full Building Integration clauses that provide accurate and descript instructions to contractors.
- Master Systems Integrator clauses that vary depending on the developers use cases and the technologies deployed to the building.
- Full converged network design and that enables communication between all smart IOT enabled devices.
- Semantic Modelling (Tagging) and Analytics clauses.



Smart Building Design Specifications

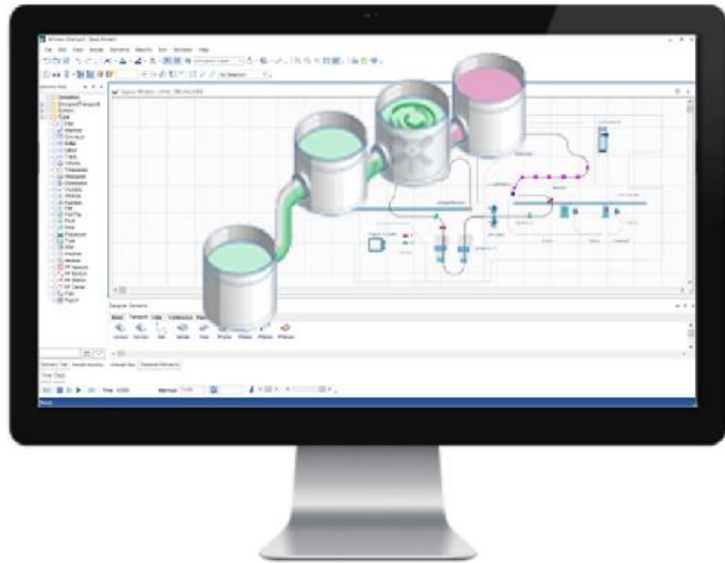
- BIM model GUID integration clauses used for QR code asset tagging and real time data acquisition.
- Automated Fault Detection and green screen dashboard clauses.
- Artificial Intelligence Specification clauses including neural networks.

Technical Submittals & Contractor Co-Ordination



- Consultants will answer smart building technical submittals and request for information requests from contractors for projects they have designed. This is to ensure that our design intent is met and that each customer's desired outcomes are met.
- Contractor Interviews.
- Tender Reviews.

Client Monitoring Team and Project Witnessing



- Smart Building consultation includes full project can include the following services:
- Factory Acceptance Tests;
- Document Review Workshops;
- Site Witnessing;
- Headend / Dashboard Witnessing;
- Integration witnessing;
- Cloud integration witnessing;
- Software acceptance testing.

Practical completion and FM Handover



Many fantastic buildings upon completion and handover do not operate as intended by the designer.

This is often due to complex smart systems being disabled by FM engineering teams leading to bad performance.

Consultants Smart Building Specifications can include training programs for FM teams to ensure that they understand how the systems work.

Smart building FM team training is vital for the continued operation of associated systems, this is because it helps to close the skills gap between FM teams and software and integration engineers.





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Imagine it.
Delivered.