Architectural Views

Software Architecture

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Interesting Software is Complex

Many aspects to the design of its architecture.

Architectural Design

Managing technical complexity.

Question

How do you describe a complex architecture, without making it too difficult to understand?

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Answer

Architectural Views

– Only consider one aspect at a time.

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  - context, structure, behaviour, infrastructure

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- The Open Group Architecture Framework (TOGAF) [Forum, 2018]
- ISO/IEC/IEEE 42010:2011 [iso, 2011]

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Structure – Containers, Components, Code

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Infrastructure – Deployment

- How system is *deployed* on computing platforms

4+1 Views

Logical – *Structure* of how the software is implemented

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Scenario – *Demonstrate* functionality delivered by architecture

- use case details
  - *drive* functional design of architecture
  - *validate* design of architecture
  - *illustrate* purpose of architecture

Diagrams & Notation

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- C4 – informal, simple structure *[Brown, 2023]*
- UML – formal, well-defined language *[uml, 2017]*
- You probably don't want to know about alternatives

Reading...

"Architectural Views" Notes[1] *[Thomas and Webb, 2023]*

[1] Remember, I said you had to read the notes.

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