

Software Architecture v.s. Building Architecture

What is the software architecture about?

- Software architecture are more architectural (with more design activity, more varies structure)
- Software architecture does NOT look like anything
 - A particular visualization is a choice not a given
- Architecture represents the **significant** design decisions that shape a system, where **significant** is measured by cost of change. — Grady Booch
 - Time, money and effort for the change
- Architecture is a hypothesis, that needs to be proven by implementation and measurement. — Tom Gilb
 - No way to ensure a good architecture in the first place
 - Softness is a first-class property of the system
 - A good architecture is more as a journey than a destination, more an ongoing process of enquiry than as a frozen artifact

What do we really want to talk here?

Timeless, changeless things

- The rules of software architecture are the rules of
 - ordering and assembling the **building blocks** of programs
- All software systems are built upon the **same** building blocks
 - if statements, assignment statements, and while loops
- The architecture rules are the same across all software systems
 - Fundamental, timeless, changeless