Subtle, but Important Difference!

Verification

"Are we building the product **right**"

Can we verify that a system is correct?

The software must conform to its specification

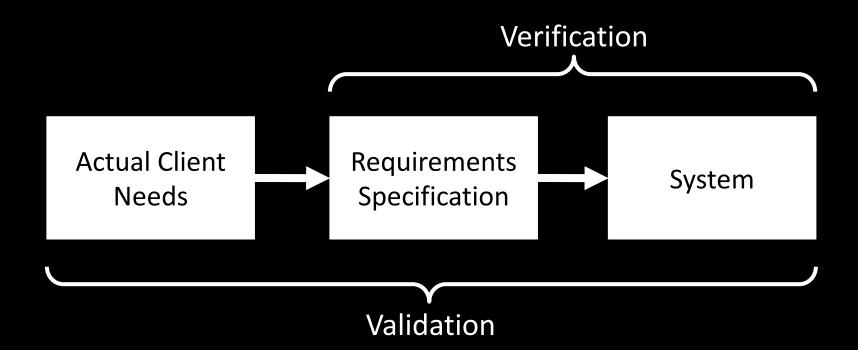
Validation

"Are we building the right **product**"

Is our system a valid solution?

The software should do what users really want

Visual Comparison



Approaches to V&V

- Manual audits and reviews
- Mathematical proofs
- Static code analysis
- Heuristic evaluation
- User-centered evaluation
- Run-time testing...

Different Types of Testing

- Development testing: the various bits ("units") of the system are tested during implementation
- Release testing: testing of the current release of the system as an integrated whole.
- Acceptance testing: client and users of a system assess it within in their own environment.

Testing Phases in Context

