



orasi

ôr' ə sē n. Greek word meaning Vision.
Orasi Software gives organizations the
intelligent foresight to understand and
validate what customers want... before it's
too late.

Requirements & Quality Assurance

Karyn Volk
Senior Consultant

Welcome

- Karyn Volk
 - Senior Consultant
 - Orasi Software



Overview

- When does Quality Assurance Start?
- V-Model for Software Development
- What Can You do to Improve the Success of Your Project?
- When Should Quality Assurance Start?

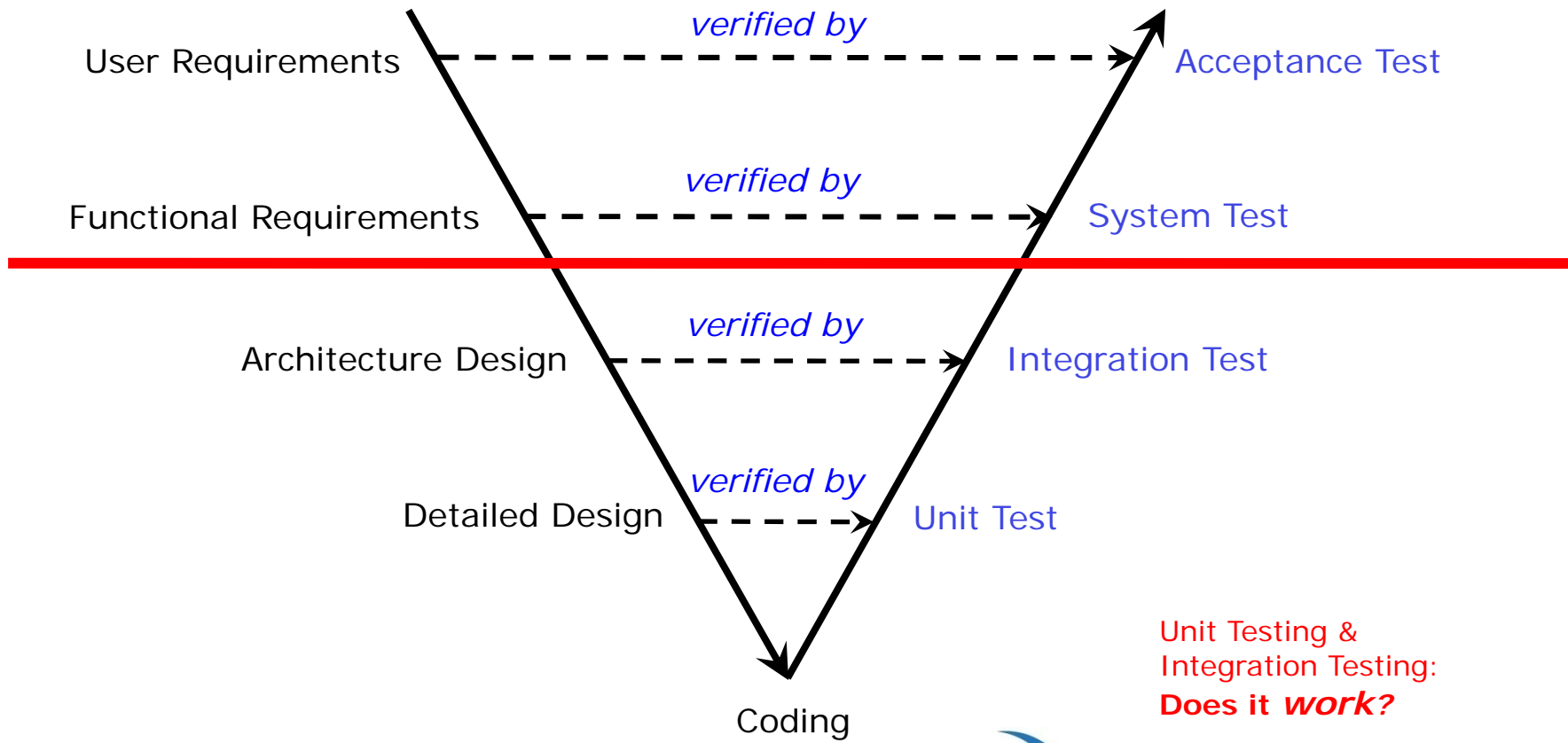


When Does **Quality Assurance** Start?



V-Model for Software Development

User Acceptance &
System Testing:
**Does the software do *what*
it is supposed to do?**



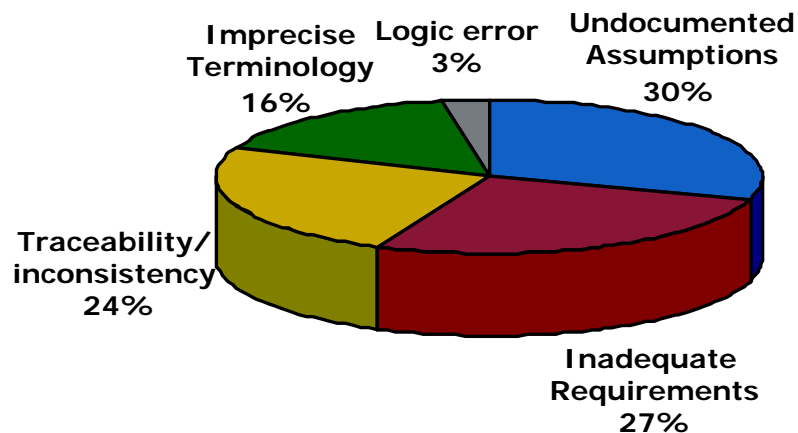
Unit Testing &
Integration Testing:
Does it *work*?



Consequences of Poor Requirements

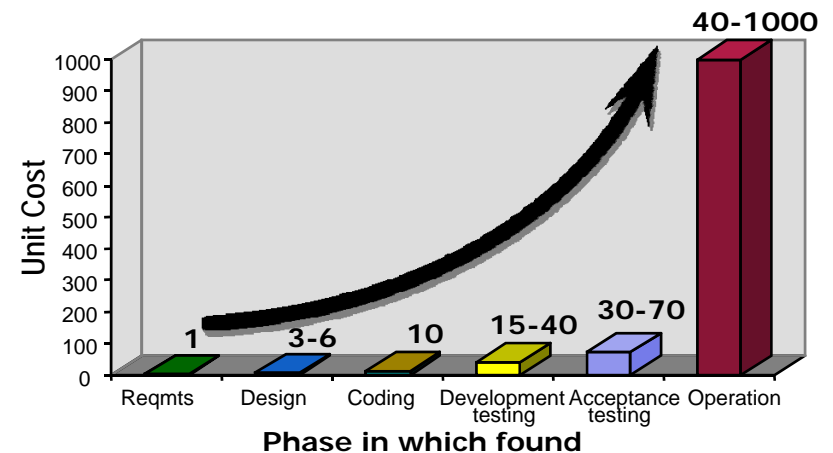
- 30-50% of a typical product's development time is spent in **correcting errors** not discovered in the beginning of the product.
 - Software Project Survival Guide, Steve McConnell
- Fixing a defect late in the development lifecycle can cost **30-1000 times** more than during requirements elicitation.

Reasons for Rework



- "Experiences using Formal Methods for Requirements Modeling."
Easterbrook, et al.

Relative Cost...**Avoid** vs. **Fix**



- Gause, Donald and Gerald Weinberg. Exploring Requirements: Quality Before Design



Requirements Problems

- The Software Engineering Institute* reported that **Requirements Problems** are the number one cause of why projects:
 - ❑ Are significantly **over budget**.
 - ❑ Are significantly **past due**.
 - ❑ Have significantly **reduced scope**.
 - ❑ Deliver **poor quality** applications.
 - ❑ Are **not** significantly **used** once delivered
 - ❑ Are **cancelled**.



What Can **You** do to Improve the Success of Your Project?



Review the Requirements

- Requirements should clearly define ***WHAT*** needs to be done from an end user perspective, NOT ***HOW*** it needs to be done
- Check for **Useful Software Requirement Characteristics**
- Ask Questions
- Provide Constructive Feedback



Useful Software Requirement Characteristics

- **Bounded**
- **Complete**
- **Correct**
- **Not Ambiguous**
- **Precise**
- **Testable**
- **Unique**



Review the Other Documents

- Check for Consistency with the Requirements
- Ask Questions
- Provide Constructive Feedback



Test the Code

- Check for Consistency with the Requirements
- Open Defects



When Should **Quality Assurance** Start?



Review

- When Does Quality Assurance Start?
- V-Model for Software Development
- What Can You do to Improve the Success of Your Project?
- When Should Quality Assurance Start?



Questions?

Karyn Volk

Orasi Software

Karyn.Volk@Orasi.com

770-714-8433





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