Security, a part of QA

My claim

In custom software, if you haven’t properly tested it, it probably doesn’t work.

This goes for both functional and nonfunctional requirements.

Worse yet if you don’t even know what ‘it’ is supposed to be.

Who is this then?

Boy Baukema

Security Specialist @ lbuildings.nl

Security what?

Senior Engineer

+ interest in WebAppSec

+ 4 hours a week R&D

+ internal training & consultancy

+ internal & external auditing

Okay, and you do this where?

Ibuildings.nl

web & mobile, 20+ devs, mostly PHP

You

developer, manager, executive

pentester, security consultant, ?

The plan

1. The journey
2. The holy grail
3. Riding off into the sunset


2007
2007

A Guide to Building Secure Web Applications

Essential PHP Security

O'REILLY®

Chris Shiflett

A assignment

Make security something I can sell,
give managers a knob to turn

OWASP ASVS

Open Web Application Security Project

Application Security Verification Standard

	Level 1	Level 2	Level 3
Chapter 1 Requirement 1.1 Requirement 1.2 Requirement 1.3	X	X X X	X X X
Chapter 2 Requirement 2.1 ...			X

ASVS Levels (2013)

Level 0 - Bullshit compliance level (0)

Level 1 - Opportunistic (47)

Level 2 - Standard (136)

Level 3 - Advanced (164)

ASVS Chapters

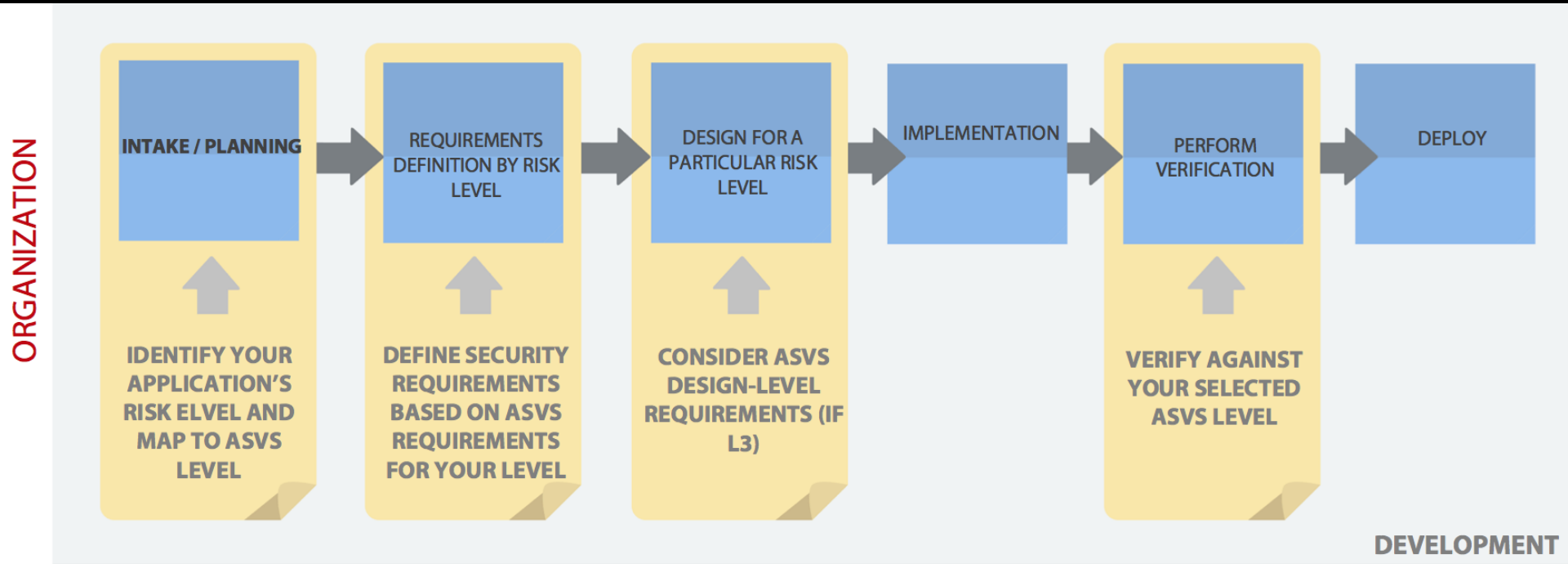
V1. Authentication
V2. Session Management
V3. Access Control
V4. Input Validation
V5. Cryptography (at Rest)
V6. Error Handling and Logging
V7. Data Protection
V8. Communication Security
V9. HTTP Security
V10. Malicious Controls
V11. Business Logic
V12. Files and Resources
V13. Mobile

An example

V1.4. Verify that credentials and all other identity information handled by the application does not traverse unencrypted or weakly encrypted links.

(level 1, 2 & 3)

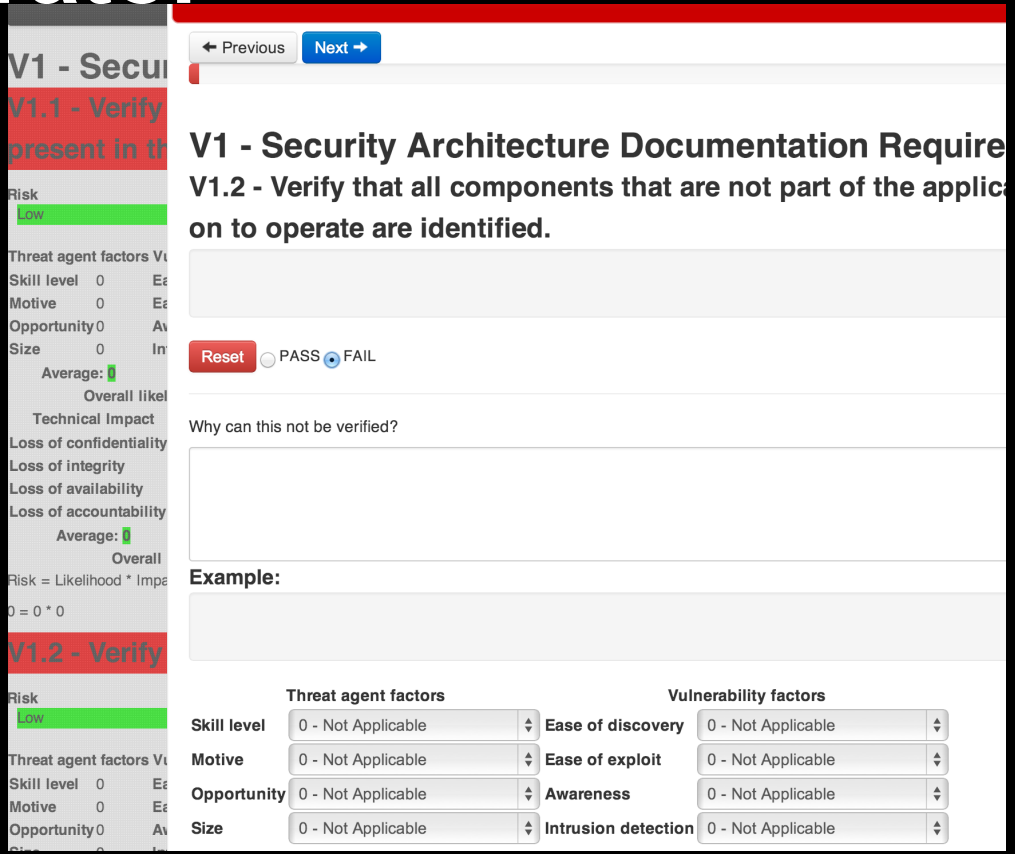
So how does this tie into QA?



First attempt

V2.7 Verify that the strength of any authentication credentials are sufficient to withstand attacks that are typical of the threats in the deployed environment.
(OWASP ASVS 2009 Level 2)

AASVS, Scanners & A Report Generator



Enter ASVS 2013 (Beta)

Release any day now!

+ is for effort

… scope of the verification may go beyond the application’s custom-built code and include external components. Achieving a verification level under such scrutiny can be represented by annotating a “+” symbol to the verification level.

OWASP AASVS 2013

3. Table of Contents

A plan for the future

Software Assurance Maturity Model

A guide to building security into software development

Version - 1.0

OWASP SAMM

Security Testing

...more on page 66

Objective	**Establish process to perform basic security tests based on implementation and software requirements**	**Make security testing during development more complete and efficient through automation**	**Require application-specific security testing to ensure baseline security before deployment**
Activities	A. Derive test cases from known security requirements B. Conduct penetration testing on software releases	A. Utilize automated security testing tools B. Integrate security testing into development process	A. Employ application-specific security testing automation B. Establish release gates for security testing

The End

Questions?

boy.baukema@owasp.org
boy@ibuildings.nl
https://twitter.com/relaxnow