OWASP Top-10 2013

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About the OWASP Top 10

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OWASP Top Ten (2013 Edition)

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What Didn't Change?

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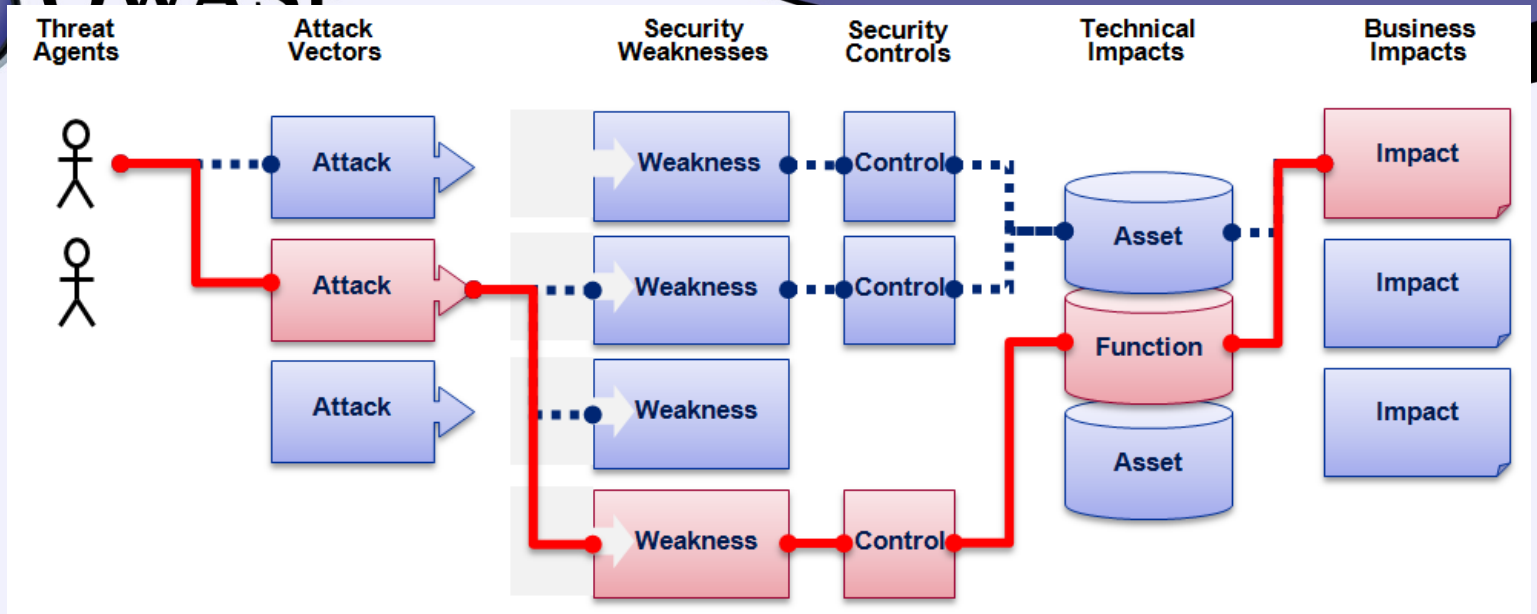
OWASP Top 10 Risk Rating Methodology



Threat Agent	Attack Vector	Weakness Prevalence	Weakness Detectability	Technical Impact	Business Impact
	1 Easy	Widespread	Easy	Severe	
?	2 Average	Common	Average	Moderate	?
	3 Difficult	Uncommon	Difficult	Minor	
	1	2	2	1	
		1.66	*	1	

Injection Example

1.66 weighted risk

What's Changed?

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Mapping from 2010 to 2013 Top 10

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OWASP Top 10 – 2010 (old)	OWASP Top 10 – 2013 (New)
2010-A1 – Injection	2013-A1 – Injection
2010-A2 – Cross Site Scripting (XSS)	2013-A2 – Broken Authentication and Session Management
2010-A3 – Broken Authentication and Session Management	2013-A3 – Cross Site Scripting (XSS)
2010-A4 – Insecure Direct Object References	2013-A4 – Insecure Direct Object References
2010-A5 – Cross Site Request Forgery (CSRF)	2013-A5 – Security Misconfiguration
2010-A6 – Security Misconfiguration	2013-A6 – Sensitive Data Exposure
2010-A7 – Insecure Cryptographic Storage	2013-A7 – Missing Function Level Access Control
2010-A8 – Failure to Restrict URL Access	2013-A8 – Cross-Site Request Forgery (CSRF)
2010-A9 – Insufficient Transport Layer Protection	2013-A9 – Using Known Vulnerable Components (NEW)
2010-A10 – Unvalidated Redirects and Forwards (NEW)	2013-A10 – Unvalidated Redirects and Forwards
3 Primary Changes:	§ Merged: 2010-A7 and 2010-A9 -> 2013-A6
§ Added New 2013-A9: Using Known Vulnerable Components	§ 2010-A8 broadened to 2013-A7

OWASP Top Ten 2010-A6 Security Misconfiguration

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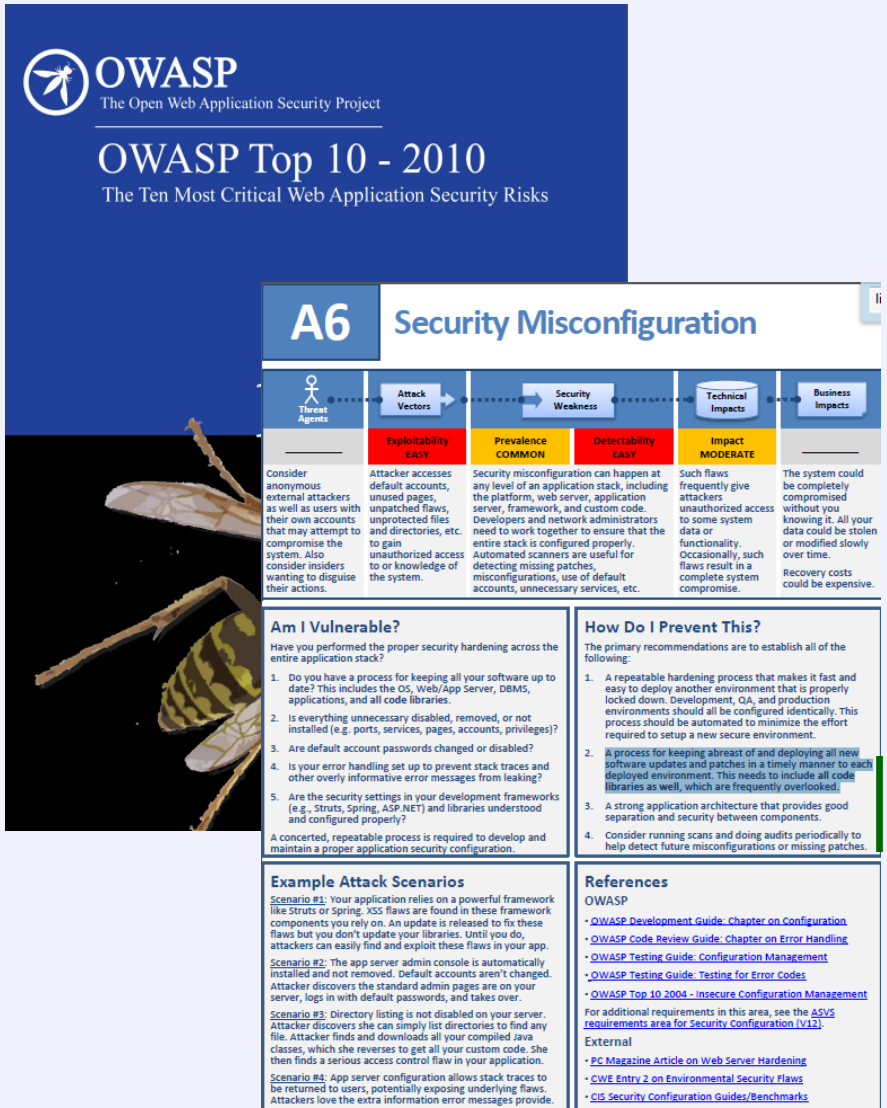


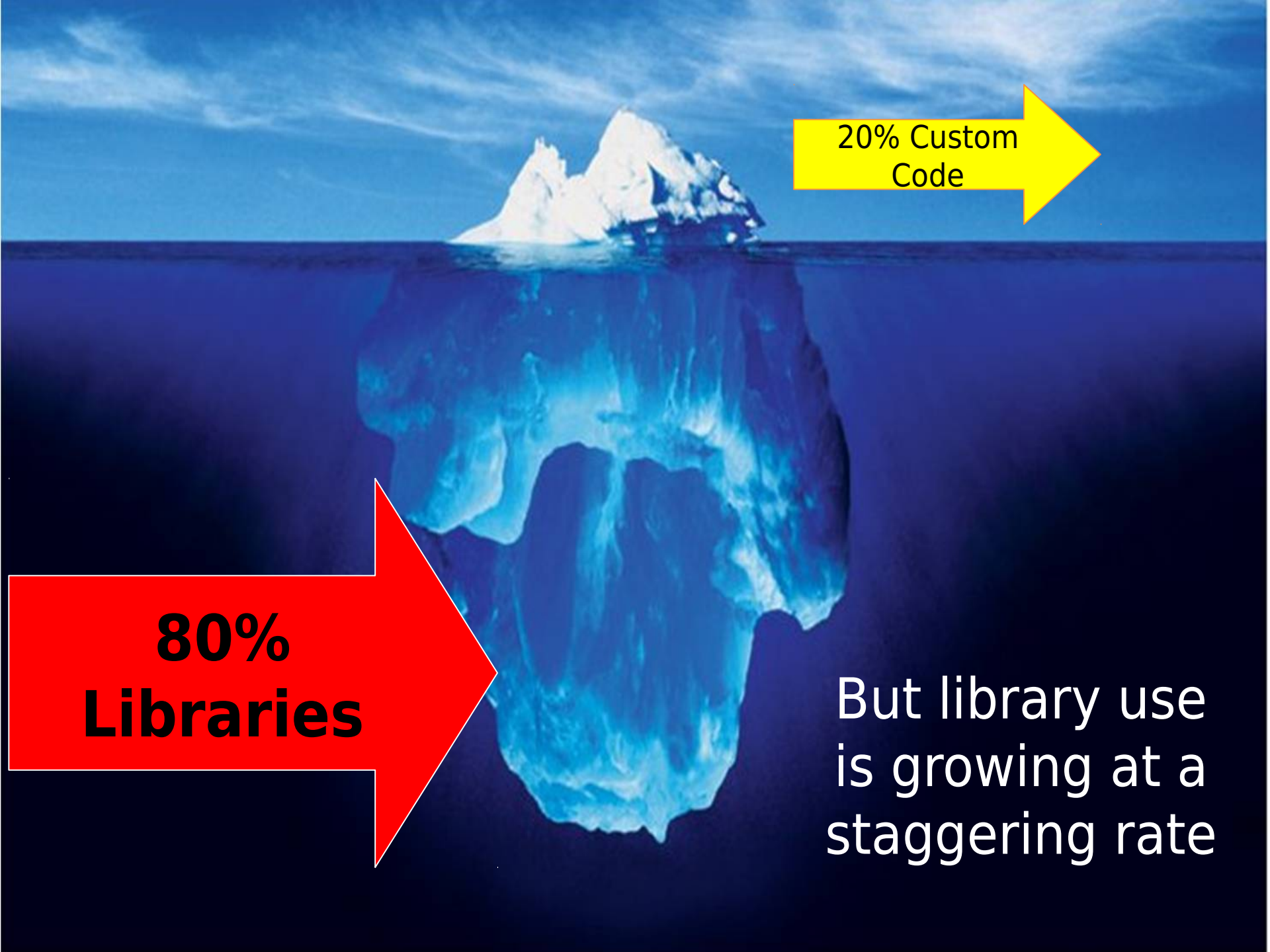
How Do I Prevent This?

The primary recommendations are to establish all of the following:

...

2. A process for keeping abreast of and deploying all new software updates and patches in a timely manner to each deployed environment. This needs to include **all code libraries as well**, which are frequently overlooked."

The amount of custom code
in an application hasn’t changed
very much in the past 10 years.


20% Custom Code
80% Libraries
But library use is growing at a staggering rate

Everyone Uses Vulnerable Libraries

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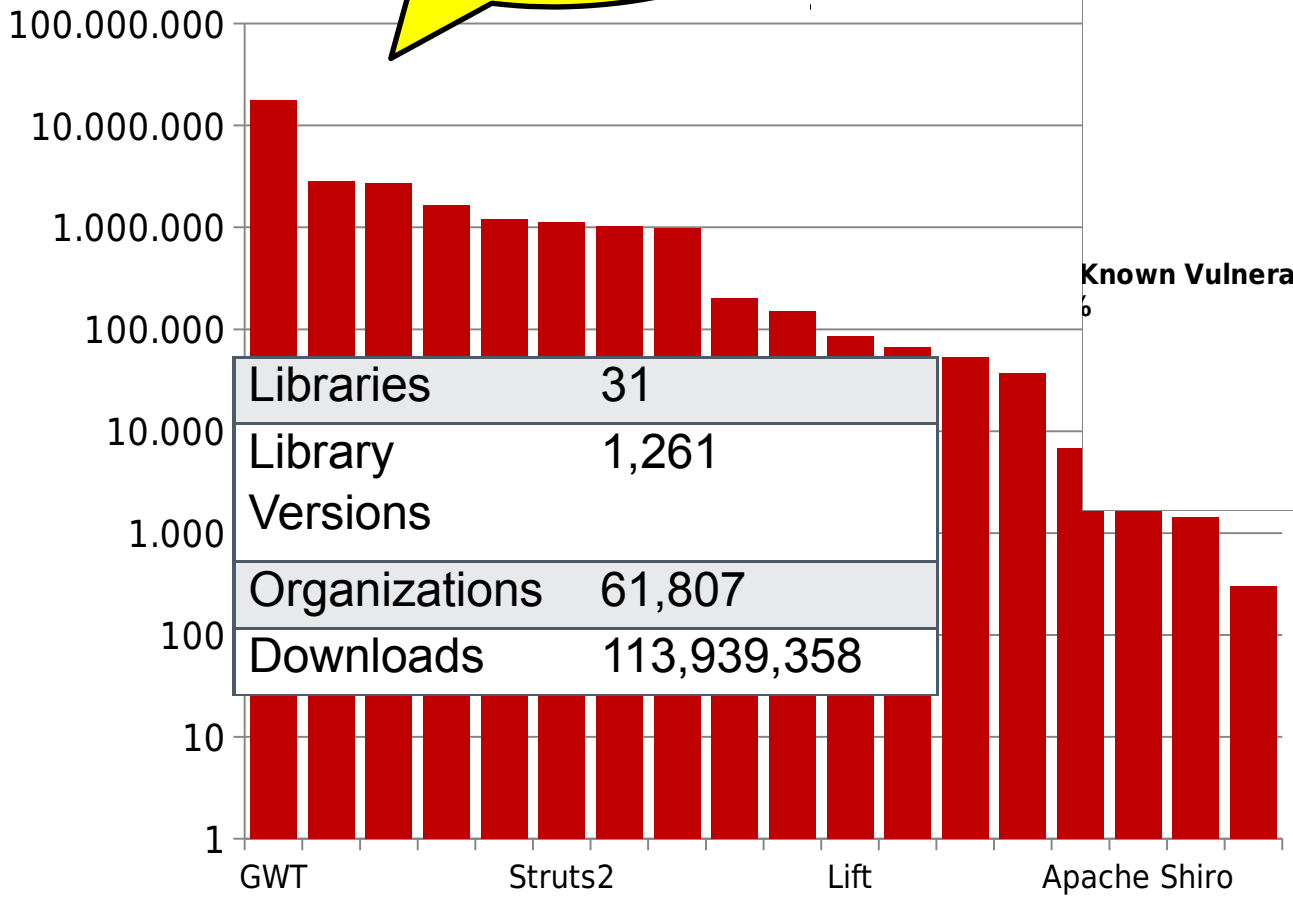
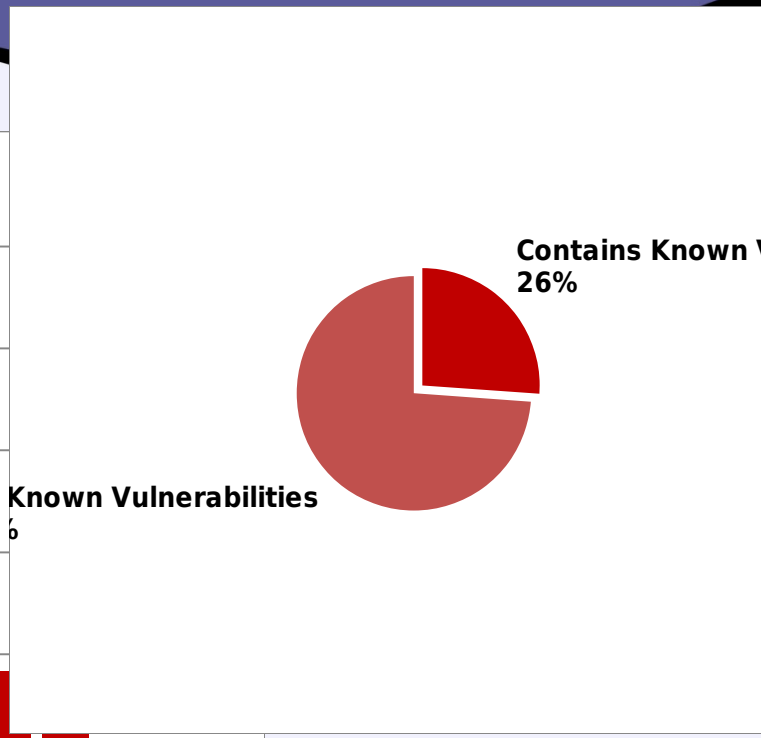
29 MILLION vulnerable downloads in 2011



Libraries	31
Library Versions	1,261
Organizations	61,807
Downloads	113,939,358



https://www.aspectsecurity.com/news/press/the-unfortunate-reality-of-insecure-

2013-A9 – Using Known Vulnerable Components

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What Can You Do?

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Automation Example for Java – Use Maven 'Versions' Plugin

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Output from the Maven Versions Plugin – Automated Analysis of Libraries' Status against Central repository

Dependencies

Status	Group Id	Artifact Id	Current Version	Scope	Classifier	Type	Next Version	Next Incremental	Next Minor	Next Major
⚠	com.fasterxml.jackson.core	jackson-annotations	2.0.4	compile		jar		**2.0.5**	**2.1.0**	
⚠	com.fasterxml.jackson.core	jackson-core	2.0.4	compile		jar		**2.0.5**	**2.1.0**	
⚠	com.fasterxml.jackson.core	jackson-databind	2.0.4	compile		jar		**2.0.5**	**2.1.0**	
⚠	com.google.guava	guava	11.0	compile		jar		**11.0.1**	**12.0-rc1**	**12.0**
⚠	com.ibm.icu	icu4j	49.1	compile		jar				**50.1**
⚠	com.theoryinpractise	halbuilder	1.0.4	compile		jar		**1.0.5**		
⚠	commons-codec	commons-codec	1.3	compile		jar			**1.4**	
✓	commons-logging	commons-logging	1.1.1	compile		jar				
⚠	joda-time	joda-time	2.0	compile		jar			**2.1**	
⚠	net.sf.ehcache	ehcache-core	2.5.1	compile		jar		**2.5.2**	**2.6.0**	
⚠	org.apache.httpcomponents	httpclient	4.1.2	compile		jar		**4.1.3**	**4.2**	
⚠	org.apache.httpcomponents	httpclient-cache	4.1.2	compile		jar		**4.1.3**	**4.2**	
⚠	org.apache.httpcomponents	httpcore	4.1.2	compile		jar		**4.1.3**	**4.2**	
⚠	org.jdom	jdom	1.1	compile		jar		**1.1.2**		**2.0.0**
✓	org.slf4j	slf4j-api	1.7.2	provided		jar				

Most out of Date!

Details Developer Needs

This can automatically be run EVERY TIME software is built!!

The Merged 2013-A6 – Sensitive Data Exposure

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Expanded 2013-A7 – Missing Function Level Access Control

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OWASP Top 10 2013 Development Methodology

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OWASP Top 10 Future Development Methodology Ideas

OWASP Top 10 Resources

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Video Presentation of Each Item in OWASP Top 10 – 2010 (which is very similar)
Dave Wichers at OWASP AppSec DC (2009)

http://www.vimeo.com/9006276

OWASP Top 10 – 2013 Presentation which goes through each item one by one
Beta-1 online at: https://www.owasp.org/index.php/Top10

Will be updated to Final based on this presentation

Translations of OWASP Top 10 - 2013
French and Chinese Translations complete

Many others are underway

https://www.owasp.org/index.php/Top10#tab=Translation_Efforts

Thank you
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