An Introduction to ZAP

OWASP
Zed Attack Proxy

Simon Bennetts

OWASP ZAP Project Lead

Mozilla Security Team

psiinon@gmail.com

What is ZAP?

- An easy to use webapp pentest tool
- Completely free and open source
- An OWASP flagship project
- Ideal for beginners
- But also used by professionals
- Ideal for devs, esp. for automated security tests
- Becoming a framework for advanced testing
- Not a silver bullet!

ZAP Principles

- Free, Open source
- Involvement actively encouraged
- Cross platform
- Easy to use
- Easy to install
- Internationalized
- Fully documented
- Work well with other tools
- Reuse well regarded components

CoolClips.com

Statistics

- Released September 2010, fork of Paros
- V 2.1.0 released in April 2013
- V 2.1.0 downloaded > 10K times
- 16 active contributors (Ohloh)
- 120 Person years (Ohloh)
- Translated into 17 languages
- Mostly used by Professional Pentesters?
- Paros code: ~30%   ZAP Code: ~70%

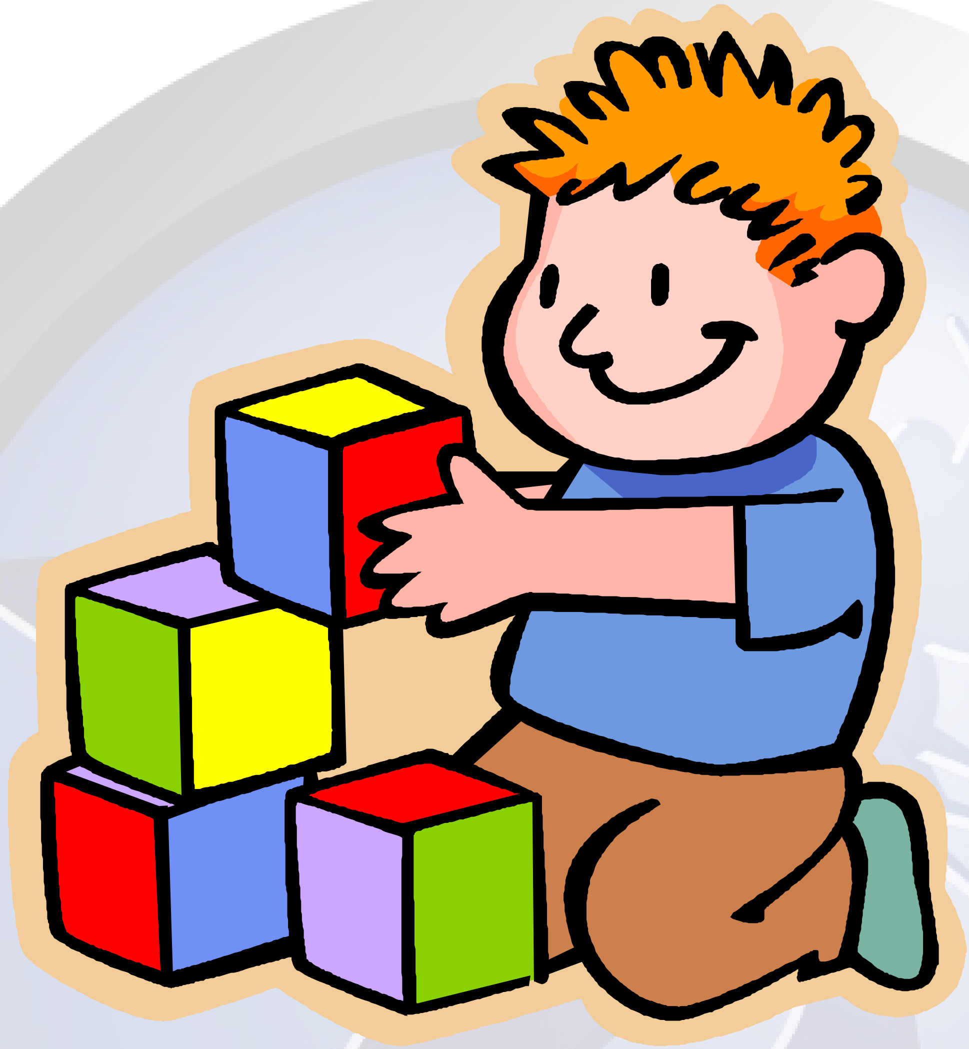
The Main Features

All the essentials for web application testing

- Intercepting Proxy
- Active and Passive Scanners
- Traditional and Ajax Spiders
- WebSockets support
- Forced Browsing (using OWASP DirBuster code)
- Fuzzing (using fuzzdb & OWASP JBroFuzz)
- Online Add-ons Marketplace

Developer Features

- ⑤ Quick start
- ⑤ REST API
- ⑤ Java and Python clients
- ⑤ Headless mode
- ⑤ Anti CSRF token handling
- ⑤ Authentication support
- ⑤ Auto updating
- ⑤ Modes



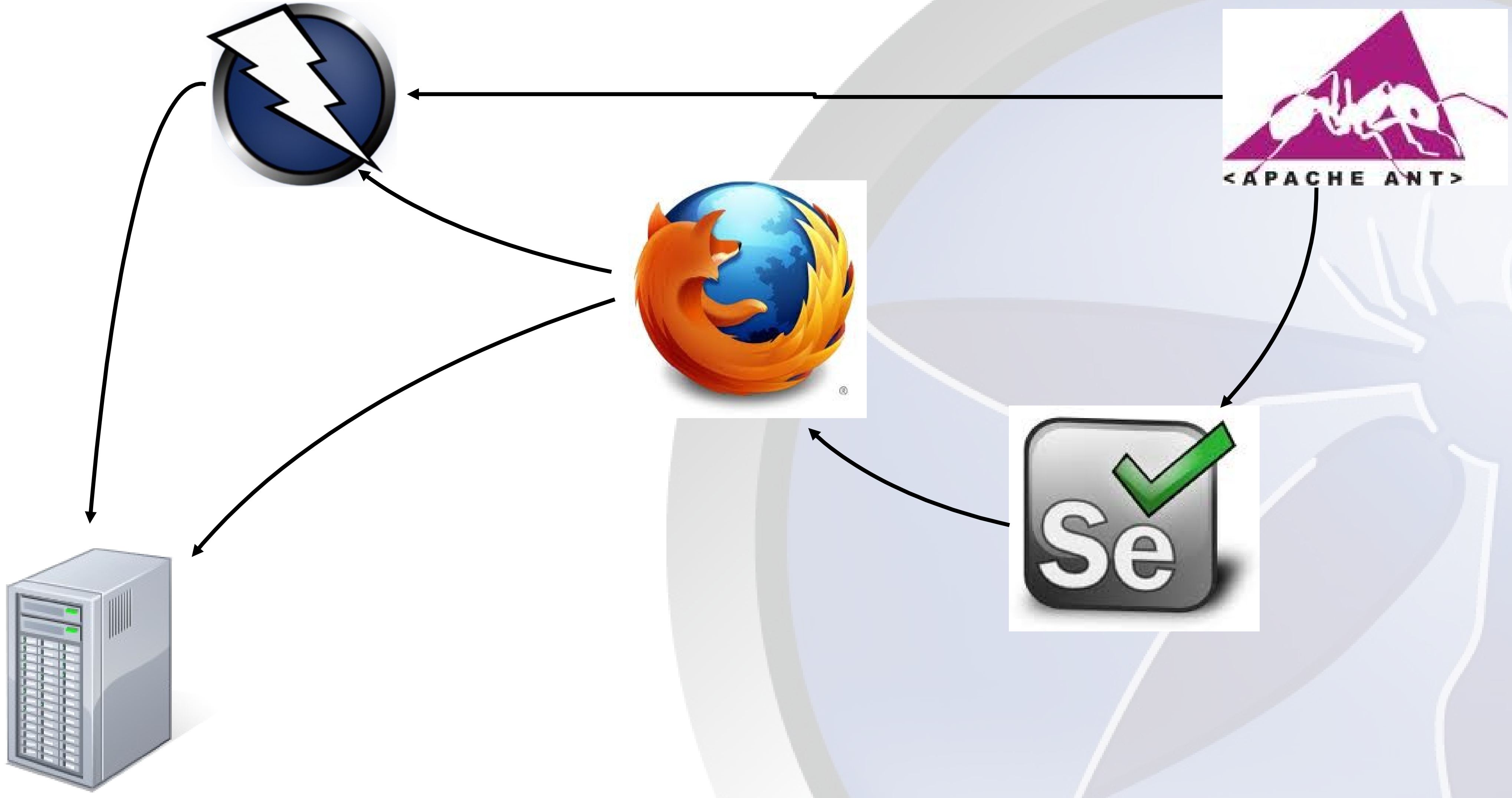
Some Additional Features

- Auto tagging
- Port scanner
- Script Console
- Report generation
- Smart card support
- Contexts and scope
- Session management
- Invoke external apps
- Dynamic SSL Certificates

How can you use ZAP?

- Point and shoot – the Quick Start tab
- Proxying via ZAP, and then scanning
- Manual pentesting
- Automated security regression tests

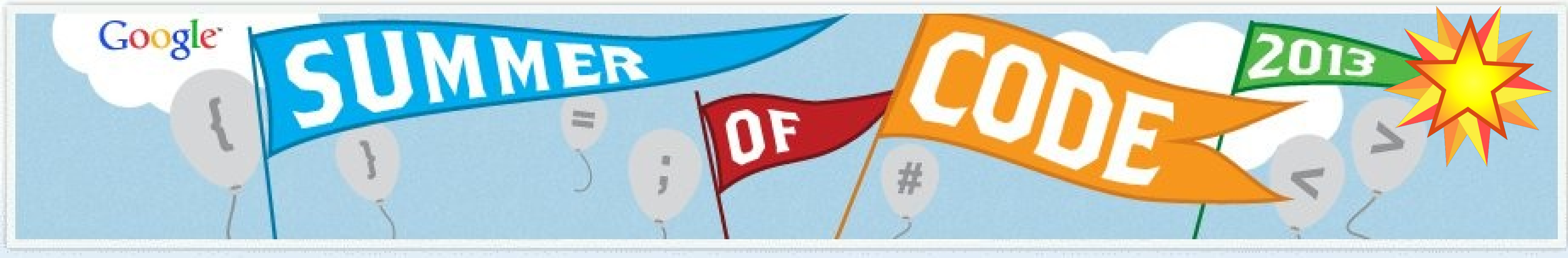
Security Regression Tests



http://code.google.com/p/zaproxy/wiki/SecRegTests

- New Spider plus Session awareness
  Cosmin Stefan
- Ajax Spider via Crawljax
  Guifre Ruiz
- WebSockets support
  Robert Kock

All in current release (2.1.0)



- Dynamically Configurable Actions
  Alessandro Secco
- SAML 2.0
  Pulasthi Mahawithana
- Enhanced HTTP Session Handling
  Cosmin Stefan
- Advanced Reporting using BIRT
  Rauf Butt
- CMS Scanner
  Abdelhadi Azouni

But theres more!

- Minion – ZAP (+ more) in “the Cloud”
  Stefan Arentz + others
- Plug-n-hack : Easy Browser Integration
  Mark Goodwin + Simon Bennetts
- Zest – Security scripting
  Simon Bennetts + Alessandro Secco
- Importing ModSecurity logs
  Joe Kirwin (Mozilla mentorship)
- New networking features
  (Mozilla intern)

Collaborations

- Dradis – ZAP upload plugin
- OWASP ModSecurity Core Rule Set script – SpiderLabs
- ThreadFix – Denim Group
- Ultimate Obsolete File Detection – Hacktics ASC, Ernst & Young
- Grey-box plugin – BCC Risk Advisory

Any Questions?

http://www.owasp.org/index.php/ZAP