Don’t be a tool’s fool

OWASP

The Open Web Application Security Project

About Me

OWASP
The Open Web Application Security Project

- Dave van Stein
- 40 years
- Started testing in 2001
  - Functional Testing
  - Interface / Legacy Testing
  - Performance Testing
  - Web Application Security Testing

- ISTQB certified tester
- EC-Council C|EH
- SANS 542 / GIAC GWAPT

- Hobbies: World of Warcraft, Geocaching

Goal

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- Not the goal:
  - Promote or push tool X
  - Put tool Y in a bad light
- But instead
  - Show easy to forget options
  - Show how to be creative
  - Discussion

Outline

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- History
- Some tools with demos
- Security Testing

The old days

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```
------------------------------------------------------------
  %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%-%%%%%%%%%%%%%%%%%%%%%%%%
  %
  %              THE NEOPHYTE'S GUIDE TO HACKING
  %              ===============================
  %                        1993 Edition
  %                    Completed on 08/28/93
  %               Modification 1.1 Done on 10/10/93
  %               Modification 1.2 Done on 10/23/93
  %                             by
  %%                   >>>>>  Deicide  <<<<<
  %%%
  %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%

  The author of this file grants permission to reprc
  redistribute this file in any way the reader sees
  including the inclusion of this file in newsletter
  media, provided the file is kept whole and complet
  without any modifications, deletions or ommissions
  (c) 1993, Deicide
```

Nowadays

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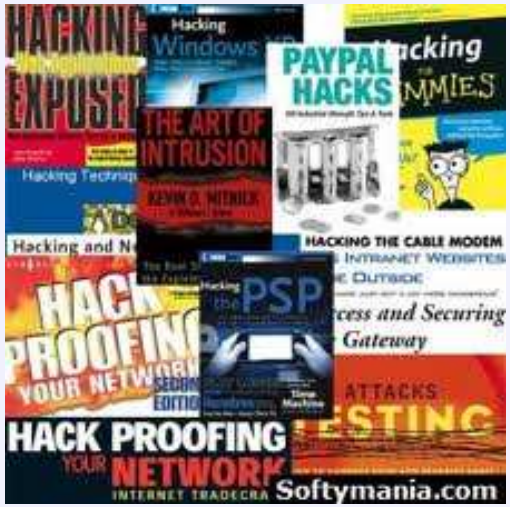
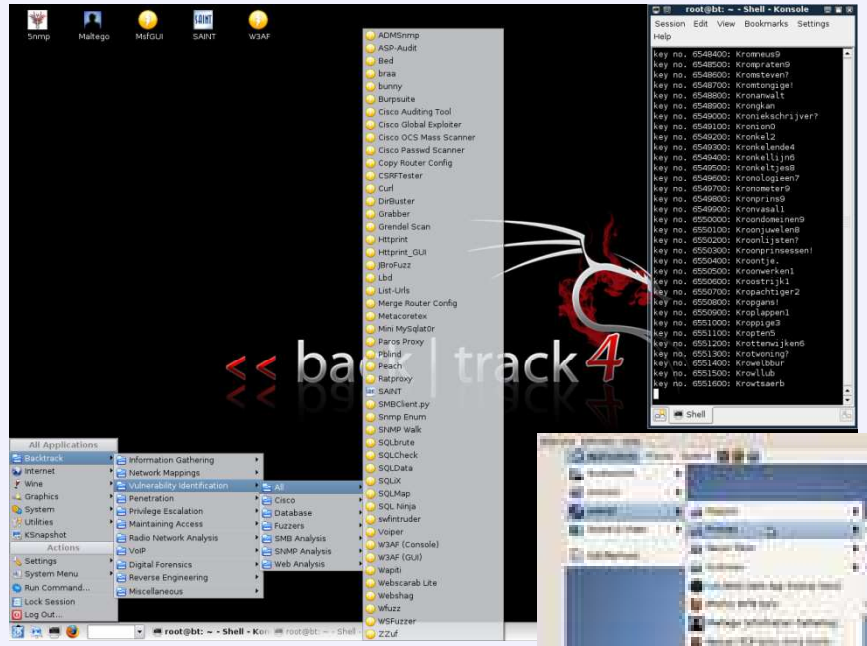
DEFCON

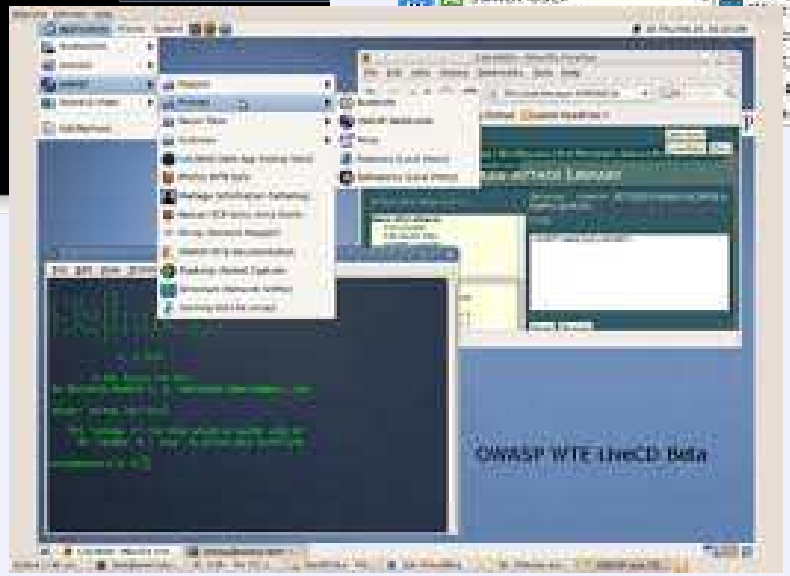
black hat

BRUCON
HACKING FOR BEER
WWW.BRUCON.ORG



Tools, tools, tools





Metasploit

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- Metasploit
  - Collection of exploits
  - Framework driven
- Pro
  - High quality, often updated
  - Fun to demo :)
- Con
  - Exploit based

Demo 1

(just for the fun of it)

Things to remember

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- Know the limitations of your tool
- No result != no vulnerabilities
- Update tools often

Nikto

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- Nikto
  - Webserver configuration issues
  - Known and common locations, files, options, etc
- Pro
  - Finds a lot of easy to miss items
- Con
  - SSL sometimes gives out-of-memory
  - By default assumes / is root folder
  - Only shows positives

Demo 2

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Toolchaining nikto with Burp

Things to remember

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- Know the quirks of your tool
- Testing > hacking
  - Negatives are just as important
- Combine tools for additional information

SQLmap

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- SQLmap
  - SQL injection scanner and exploiter (yeah, really)
- Pro
  - Huge amount of options
  - Contains lots of evasion filters
- Con
  - Huge amount of options
  - Default option are in ‘safe mode’

Demo 3

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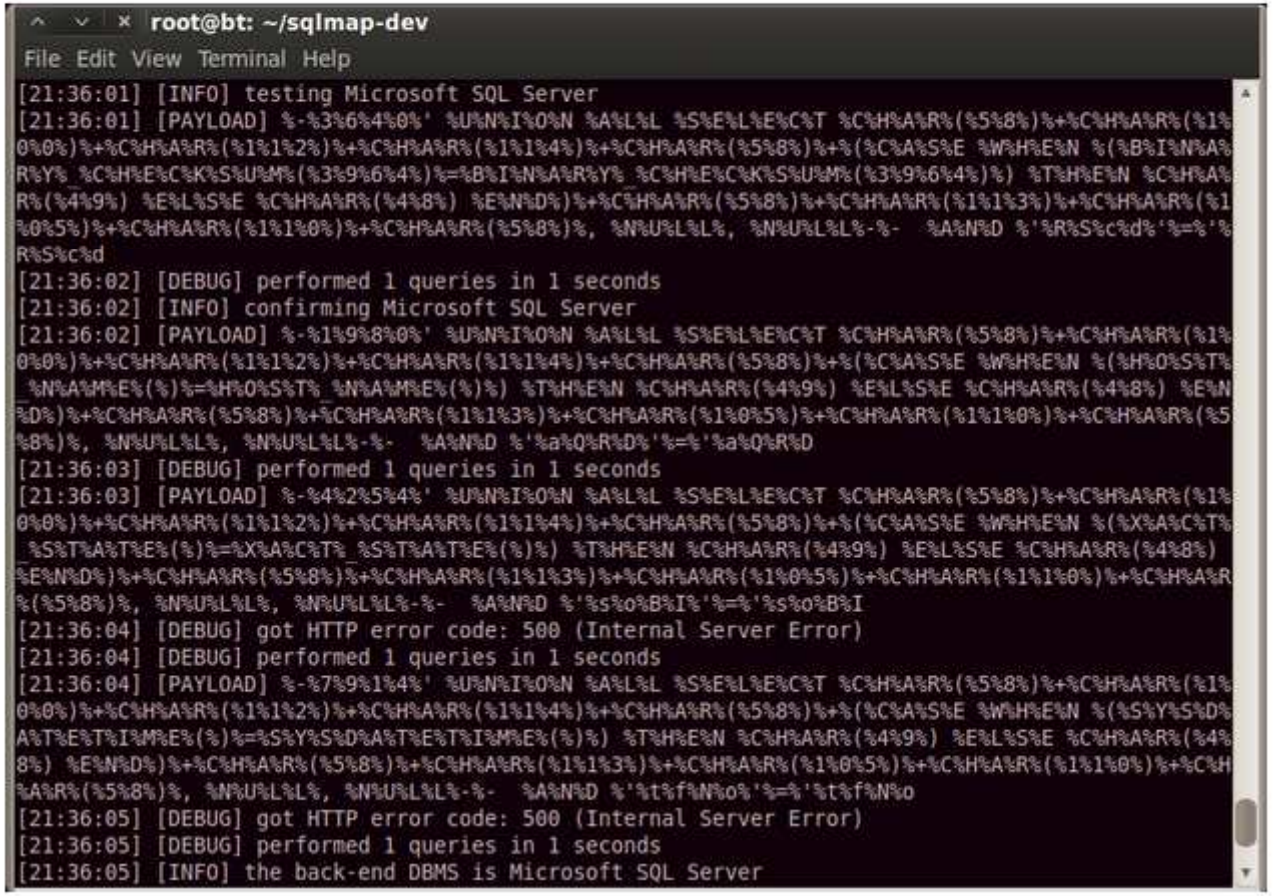
An interesting characteristic of ASP is the ability to add as many percentage signs as you want in between characters. For example, **AND 1=%%%%%%%%%1** is completely valid!



Things to remember

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- Always review default options
- In white-box and grey-box scenarios identify relevant information

Firefox add-ons

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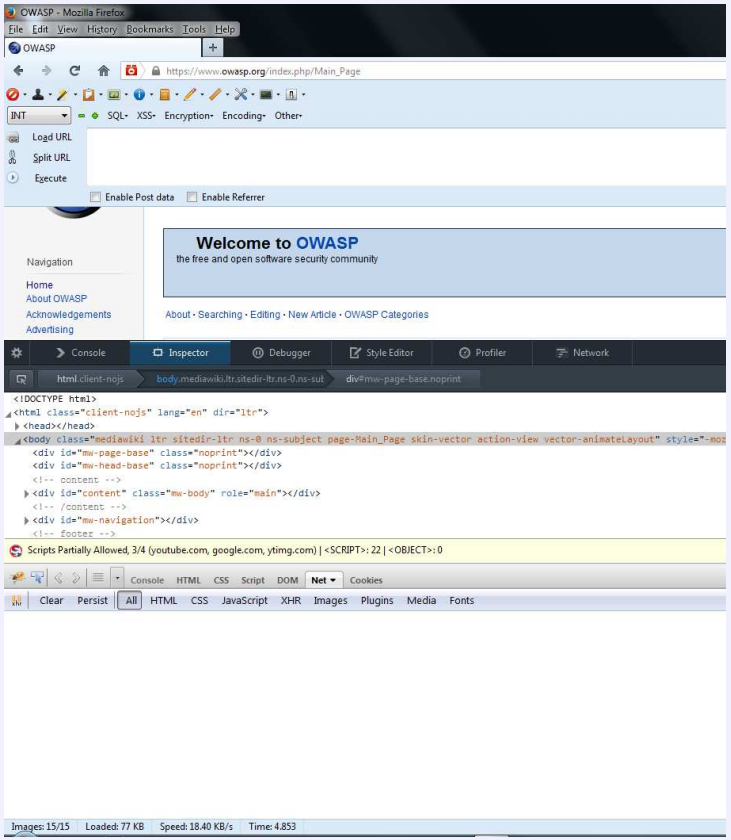
- Firefox add-ons
  - Additional functionality
- Pro
  - Flexible, many different add-ons
  - Great for ‘quick & dirty’ testing
- Con
  - Every add-on makes firefox slower
  - Cluttered interface



Demo 4

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Multiple profiles in Firefox

"C:\Program Files\Mozilla Firefox\firefox.exe" -no-remote -profilemanager

Things to remember

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- Be careful with add-ons
- Use profiles and templates where possible

Structured Security Testing

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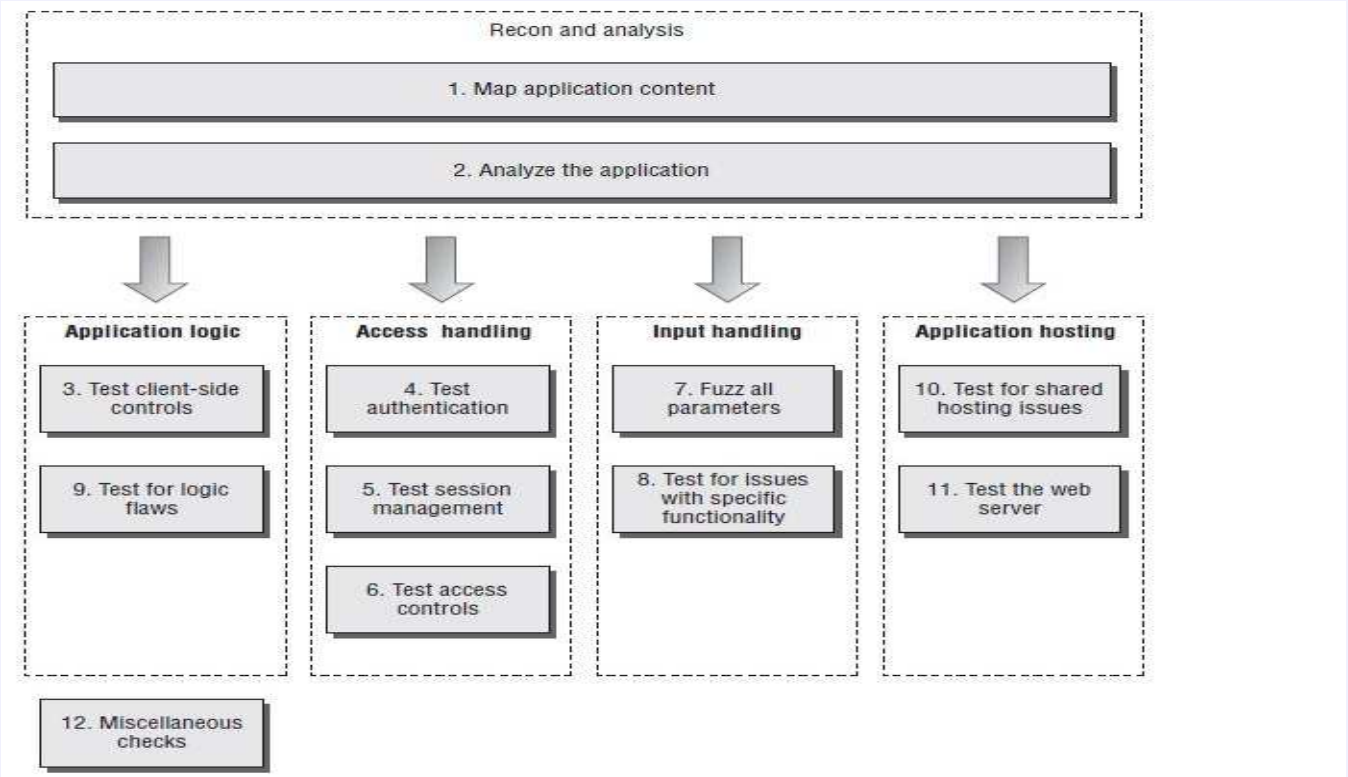
- Don’t bet on a single tool



Source: The Web Application Hacker’s Handbook

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- Use a result collection tool

Gremwell Magictree (local)
- Burp (as of Burp Suite version 1.3.07)
- Nmap
- Nikto
- Nessus XML v.1
- Nessus XML v.2
- OpenVAS
- Qualys
- Imperva Scuba
- w3af
- Acunetix
- Rapid 7 NeXpose
- Arachni
- OWASP Zed Attack Proxy
- Metasploit
- IBM Rational AppScan

Dradis Framework (web application)
- Burp Scanner
- Metasploit
- Nessus
- NeXpose
- Nikto
- Nmap
- OpenVAS
- OSVDB
- Retina
- SureCheck
- VulnDB
- w3af
- wXf
- Zed Attack Proxy

Recap

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- Know the limitations of your tool
- Know the quirks of your tool
- Update tools often

- Always review default options
- In white-box and grey-box scenarios identify relevant information

- No result != no vulnerabilities
- Testing > hacking
  - Negatives are just as important
- Combine tools for additional information
- Use a result collection tool

- Be careful with add-ons
- Use profiles and templates where possible

Q&A