

# Personal Home Page Tools Grown Up

PHP London - London, UK

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<http://derickrethans.nl/talks.php>

- Dutchman living in Norway
- eZ Systems A.S.
- eZ Components project lead
- Working with internet "applications" since about 1998
- PHP development
- mcrypt, input\_filter, date/time support, unicode
- QA

# It's All His Fault



```
<HTML><TITLE>Members to publish</TITLE>
<BODY BGCOLOR="#FFFFFF" BACKGROUND="pictures/schuback.gif">
<CENTER> <H1> The Members of the Anti Schumacher Club</H1>
<! SQL connect localhost ascm ascm2304>
<! SQL database ascm>
<! SQL query "select id,land,naam,achternaam from leden
order by achternaam" q1>
<TABLE BORDER=1 BGCOLOR=#FFFFFF CELLSPACING=0>
<THEAD><TR><TH BGCOLOR=#c0c0c0 BORDERCOLOR=#000000 >Id</TH>
<TH BGCOLOR=#c0c0c0 BORDERCOLOR=#000000 >land</TH>
<TH BGCOLOR=#c0c0c0 BORDERCOLOR=#000000 >Naam</TH>
<TH BGCOLOR=#c0c0c0 BORDERCOLOR=#000000 >Achternaam</TH>
</TR></THEAD><TBODY><! SQL print_rows q1 "<TR VALIGN=TOP>
<TD ALIGN=RIGHT>@q1.0</TD><TD>@q1.1</TD> <TD>@q1.2</TD>
<TD>@q1.3</TD> </TR>\n" >
</TABLE></CENTER>^M
<br><br><br>^M
<center>Powered by WWW-SQL</center></BODY></HTML>
```

1998

```
while.php (/tmp) - VIM
<?
$a=0;
while($a<100);
    $a++;
    echo $list[$a];
endwhile;
>

while.php      1,1      Top
"while.php" 11L, 192C written
```

## PHP Version 3.0.9

by [Rasmus Lerdorf](#), [Andi Gutmans](#), [Zeev Suraski](#), [Stig Bakken](#), [Shane Caraveo](#), [Jim Winstead](#), and countless others.

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System: Linux kossu 2.6.22-1-amd64 #1 SMP Sun Jul 29 13:54:41 UTC 2007 x86\_64  
GNU/Linux  
Build Date: Oct 31 2007

---

### Extensions

Extensions	Additional Information
PHP core	CFLAGS=-g -O2 -O2 HSREGEX=yes
Basic Functions	No additional information.
PHP_DL	Dynamic Library support enabled.
PHP_dir	No additional information.
PHP_filestat	No additional information.
PHP_file	No additional information.
PHP_head	No additional information.
Sendmail	Path to sendmail: /usr/sbin/sendmail -t

# 1999

## Harvesting E-mail

## Spamming

# Make It Work

## ICELAND

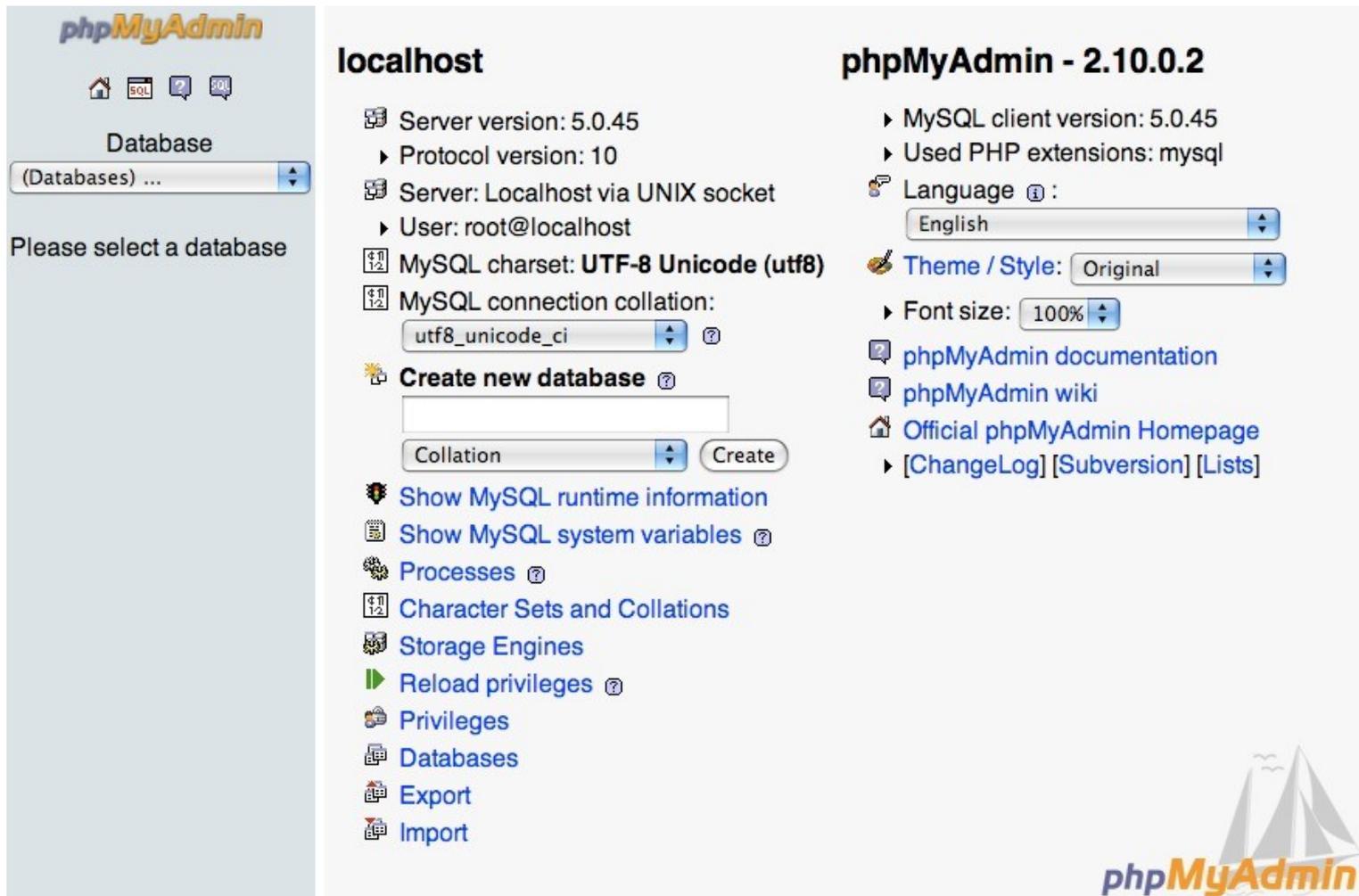
[\[photo properties\]](#)



Gallery: [Derick's Photos](#) ↕ Album: [Holidays and Trips](#) ↕ Album: [Iceland](#) ↕  
52 of 155 ▶▶ ▶▶



# 2000



**phpMyAdmin**

Database  
(Databases) ...

Please select a database

### localhost

- Server version: 5.0.45
  - Protocol version: 10
- Server: Localhost via UNIX socket
  - User: root@localhost
- MySQL charset: **UTF-8 Unicode (utf8)**
- MySQL connection collation: utf8\_unicode\_ci
- Create new database**  
  
Collation:
- [Show MySQL runtime information](#)
- [Show MySQL system variables](#)
- [Processes](#)
- [Character Sets and Collations](#)
- [Storage Engines](#)
- [Reload privileges](#)
- [Privileges](#)
- [Databases](#)
- [Export](#)
- [Import](#)

### phpMyAdmin - 2.10.0.2

- MySQL client version: 5.0.45
- Used PHP extensions: mysql
- Language: English
- Theme / Style: Original
- Font size: 100%
- [phpMyAdmin documentation](#)
- [phpMyAdmin wiki](#)
- [Official phpMyAdmin Homepage](#)
  - [\[ChangeLog\]](#) [\[Subversion\]](#) [\[Lists\]](#)



'In the beginning Bharat [the developer] bought a digital camera and thought "wouldn't it be nice if I could put these photos somewhere." But when Gallery 1.x came into being, the developers had no idea what they were doing. They didn't know PHP very well, didn't understand the importance of separating code from content, didn't have a whole lot of database experience, you get the idea. So they started by just writing something that worked, and then slowly building upon it. The end result is Gallery 1.x which works quite nicely but internally is a bit of a mess.'

<http://codex.gallery2.org/History>

# Make It Fast

print vs. echo

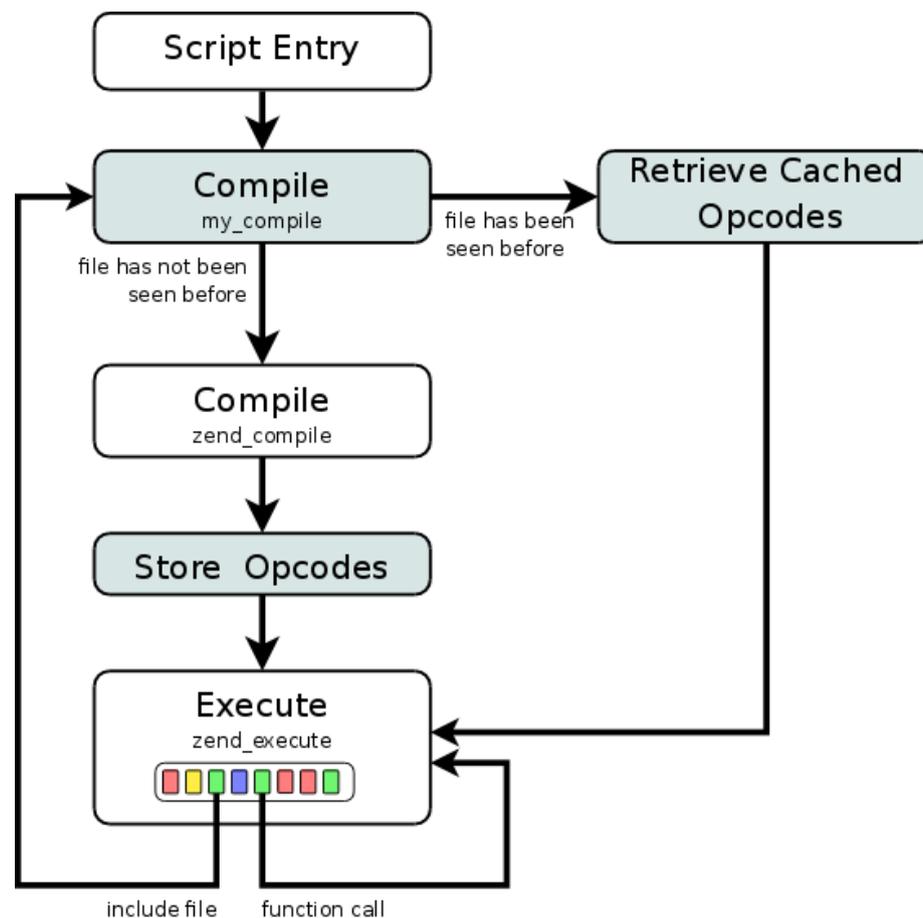
`$i++` vs. `++$i`

single quotes vs. double quotes

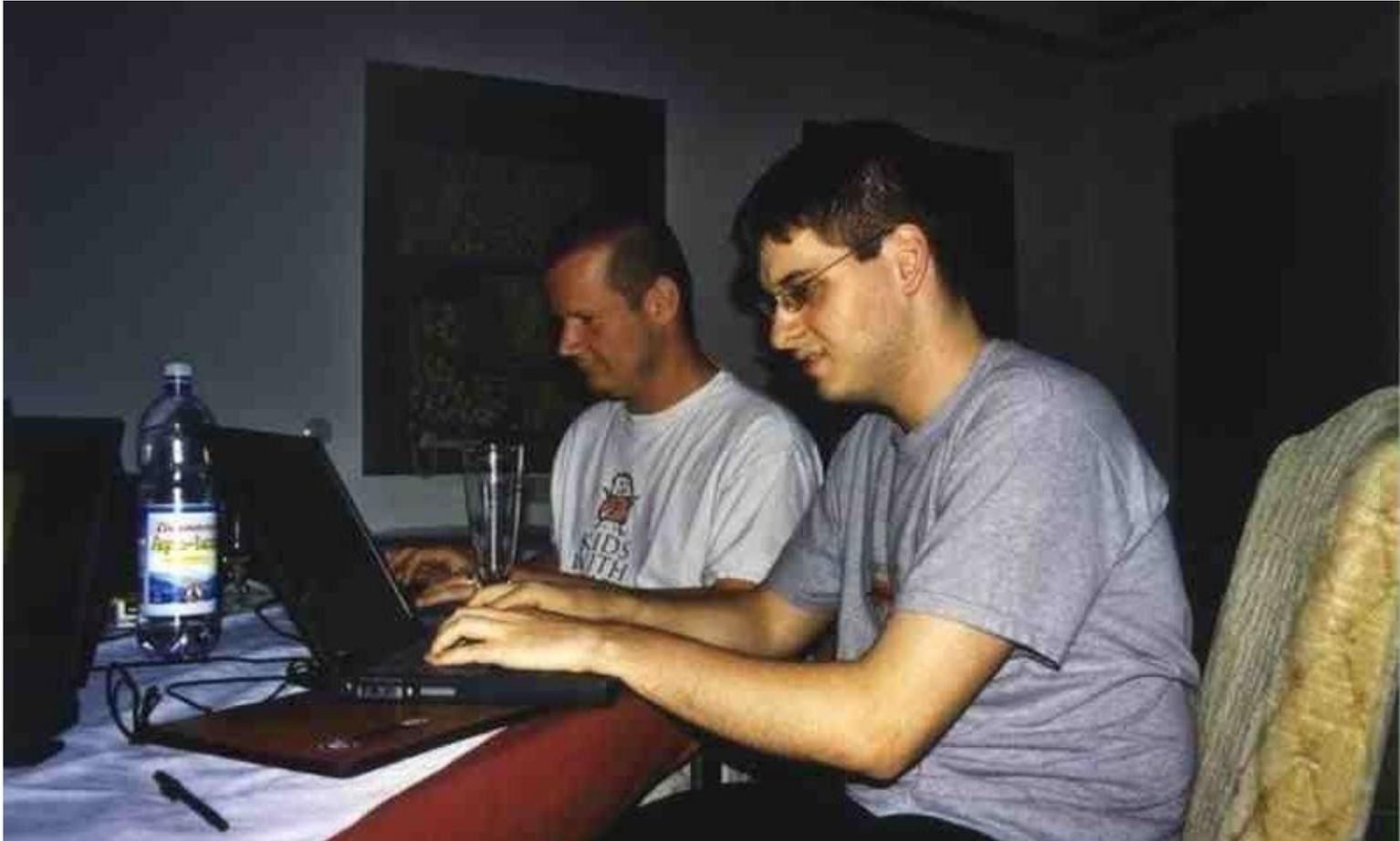
`{o}`

# Compiler Caches

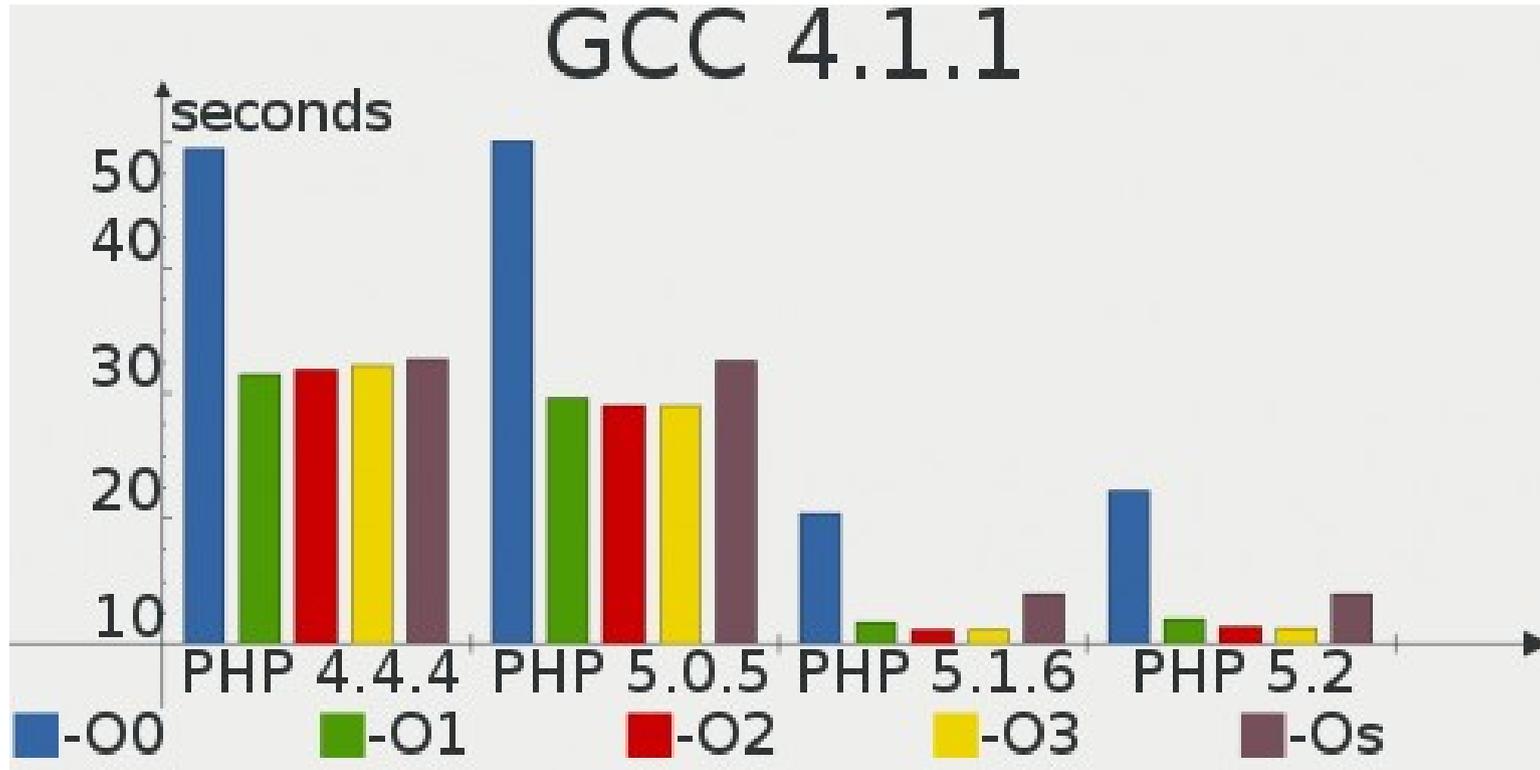
## How it works



- In general, each source file is compiled once
- Compilation overhead becomes inconsequential
- Cache introduces its own overhead due to dynamic nature of includes



2003

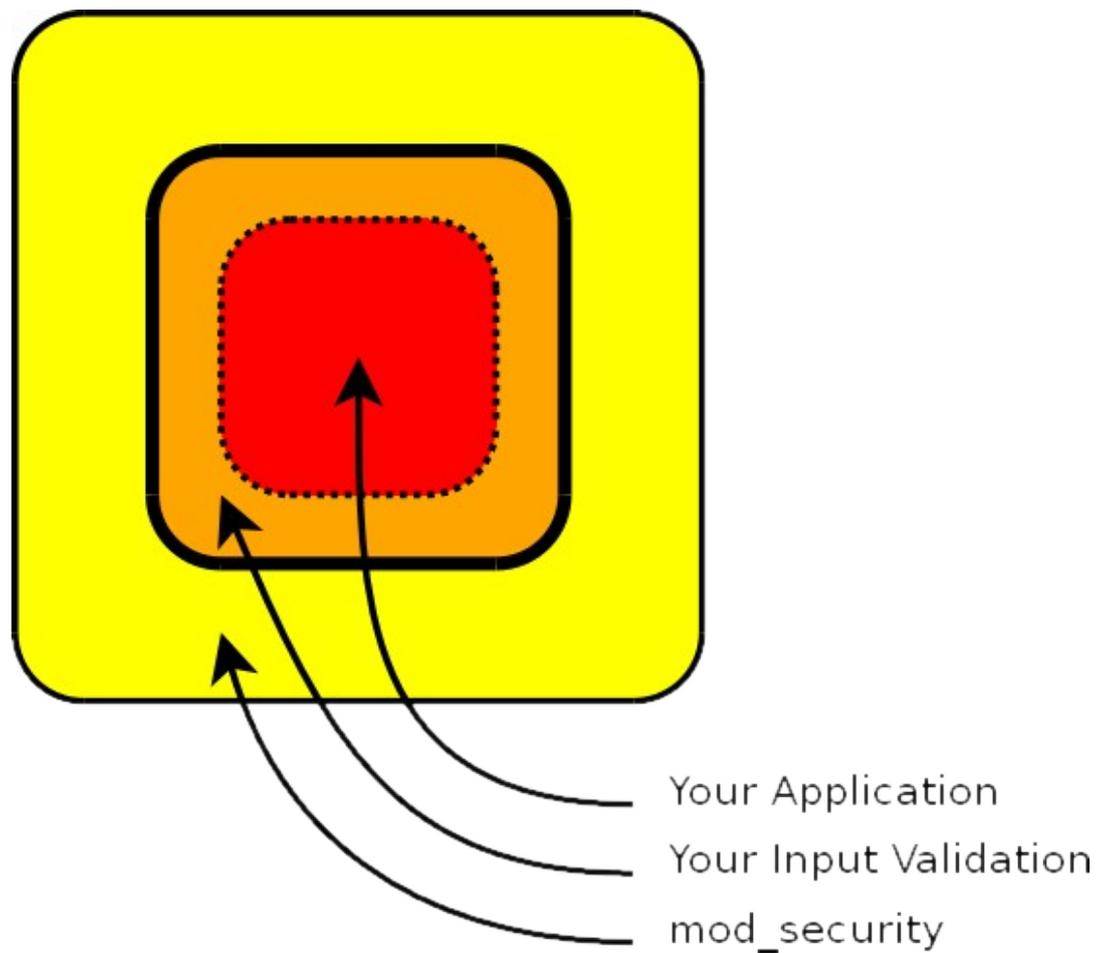


# Make It Safe

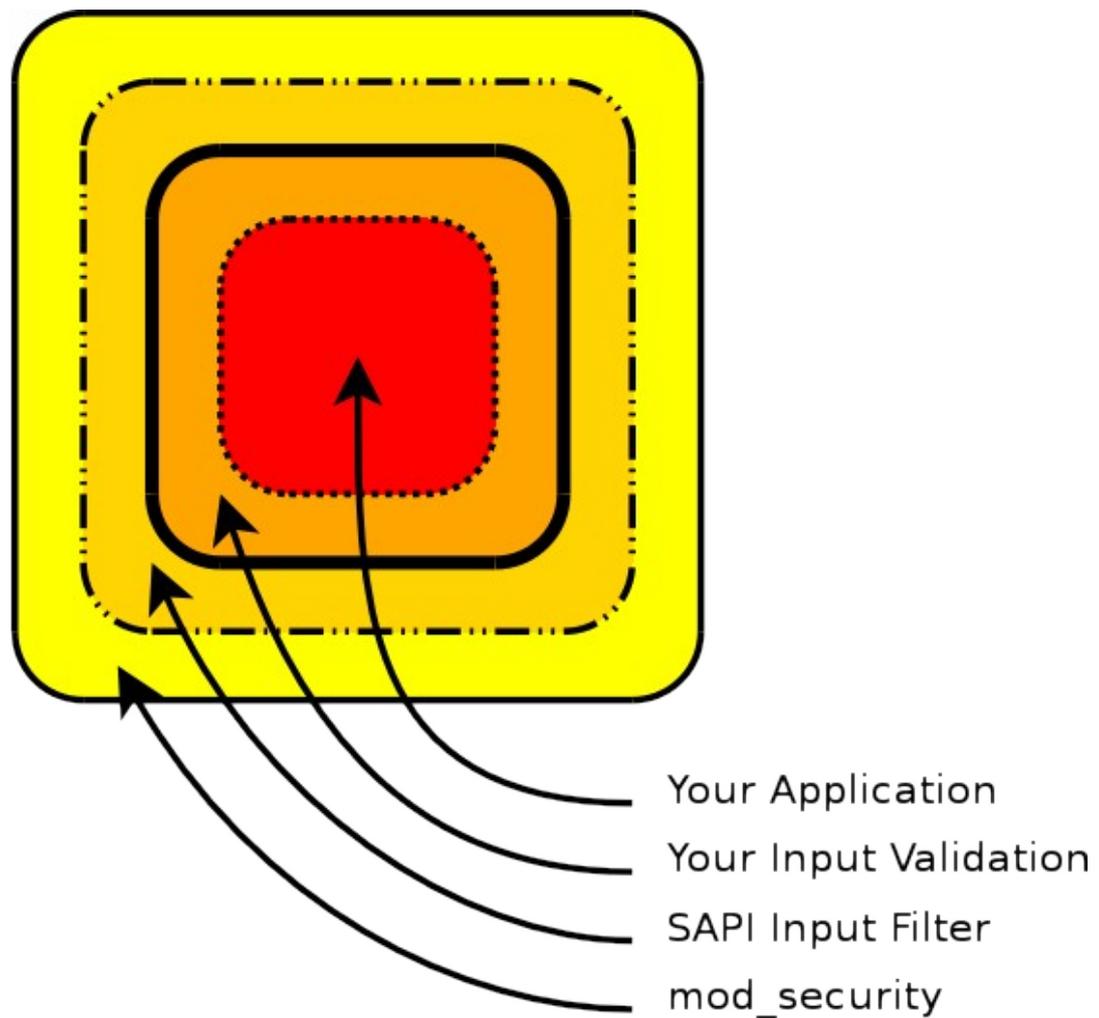
**Filter input**

**Escape output**

# Multiple Levels of Defense



# Multiple Levels of Defense++



- Sits between PHP and the webserver
- Is used while fetching data from users sources
- Can be used to filter data
- Prohibit data from entering PHP
- Written as a C extension to PHP
- Server wide filter

수호신

# PHP Patch Extension

- 18:00 - Skien, Norway ]

2.0.1. This version comes with a [few bug fixes](#) really improved performance of Xdebug's [Code](#). To give an idea on what kind of improvement I'm very rough benchmark results. For this first suite of the [eZ Components' Graph](#) component checking, with Xdebug 2.0.0 and Xdebug 2.0.1. OWS:

```
range: 1m00s
e, old Xdebug (2.0.0): 132m38s
e, new Xdebug (2.0.1): 4m57s
```

g if you ask me :-)

[ug 2.0.0](#), I asked users (you!) to send me a date my work on Xdebug. So far, I received (only) online at [flickr](#). I am waiting for more :-) (Address

nts | [add comment](#)

**unday, 21st of October, 2007; 20:01:00**

9 on a project of mine :))

## PHOTOGRAPHY

### Finally a sunset after so much rain.

[ Tuesday, 21st of August, 2007 - 21:41 - Skien, Norway ]



[permalink](#) | [no comments](#) | [add comment](#)

### Snowy Sunset

[ Saturday, 3rd of February, 2007 - 17:55 - Skien, Norway ]



**Chorizo!** by M<sup>A</sup>YFLOWER

Chorizo Checks Status

-  Check the current page
-  Check recursive (depth )
-  Activate scanning while browsing
-  Reports
-  Clear Session
-  Log out

Chorizo started. [Do you need help?](#)

# Make It Scale

**Performance  $\neq$  Scalability**

# Share Nothing

## TechCrunch

[Forum](#) [About](#) [Contact](#) [Company Index](#) [Advertise](#) [Archives](#) [Toolbar](#) [Cool Jobs](#) [TC40](#) [Cru](#)

### Facebook Source Code Leaked

Nik Cubrilovic

247 comments »

We just received a tip that the source code for the **Facebook** main index page has been leaked and published on a blog called **Facebook Secrets**. There are at least two possible ways that the source code got out - the



It seems that the cause was apache and mod\_php sending back un-interpreted source code as opposed to output, due to either a server misconfiguration or high load (this is a known issue).

<http://www.techcrunch.com/2007/08/11/facebook-source-code-leaked/>

# Test-Driven Development

a feature without a test is not a feature

# It's OK to write code that does not work



## Unit Testing

Tests small parts of an application or library (units) for correctly working code. Tools: PHPUnit, SimpleTest

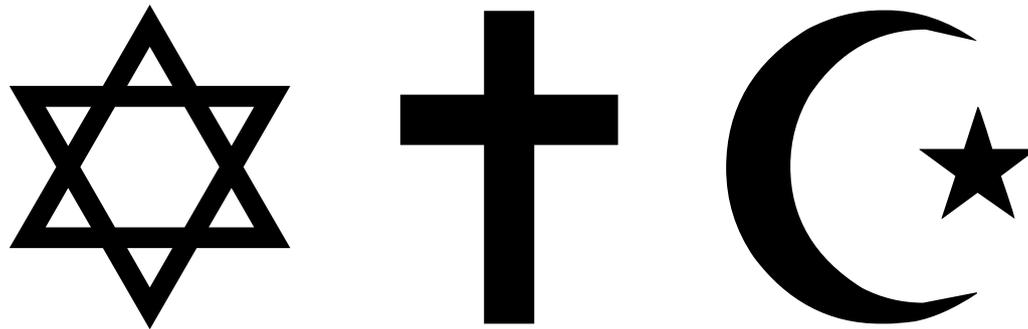
## System Testing

The testing of a whole integrated system against the specified requirements. Tools: Selenium

## Non-functional Testing

Testing for performance, load, stress, reliability, availability, security. Tools: ab, siege, httpperf, chorizo

**It is a religion.**



### Requirements Specification

Define what the software is supposed to do.

### Design

Define how the software is supposed to be implemented.

### Implementation

The implementation of the software itself.

### Testing

The implemented software is tested.  
Sometimes.

### Requirements Specification

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### Design

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### Implementation $\equiv$ Testing

The implemented software is tested.

The implementation of the software itself.

# Politics

resistance to change

Fear - more work to do

- Introduce TDD concepts gently
- Whenever a problem is found, make and retain a test case for further use
- Start using TDD for new projects



# TESTING

I FIND YOUR LACK OF TESTS DISTURBING.

Ignorance - too much time spent on testing

- Out of date with modern processes
- Belief that testing slows the schedule (only if you follow the ship-and-see process)

## Microsoft Case Study

- TDD project has twice the code quality
- Writing tests requires 15% more time

## IBM Case Study

- 40% fewer defects
- No impact on the team's productivity

## John Deere / Ericsson Case Study

- TDD produces higher quality code
- Impact of 16% on the team's productivity



**TESTS**

WHERE ARE YOURS ?!

**Diolch!**

**Go raibh maith agaibh!**

**Thanks!**