PHP

Hypertext Pre-Processor

Currently Version 4

The Server Side Scripting Technology

http://www.php.net

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PHP – Overview

- About My Person
- Introduction to PHP
- History of PHP
- Dynamic Web Contents -> Server Side
- The PHP Engine
- Teamwork
- PHP Features & Functions
- Demo
- The PHP Language
- Look Out

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PHP – Rainer Baumann

1995 New Company

2000 Foundation Member

Master Studies in Computer Science

KryptKp II/41

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PHP – The PHP

PHP file extensions in the web:

.php / .php4 / .php3 / .phtml

PHP is often used for midsize search engines

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PHP – History

- 1994 – PHP/FI, Personal Home Page / Forms Interpreter
  Macro Interpreter for visitors on-line resume, C Like
  Set of Perl Scripts (Rasmus Lerdorf)
- 1997 – PHP/FI 2, Fully C implemented
- 1998 – PHP 3 (Andi Gutmans und Zeev Suraski)
  Extendable, Object Oriented Approach
- 1999 – Zend Engine, totally new to handle complexity of
  applications and improve efficiency
- 2000 – PHP 4, Hypertext Pre-Processor, a lot of new things

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PHP – The Success

PHP availability today

Open Source
-> Implementation for most systems available

- Standard Apache Module
  - Linux distributions (RedHat, SUSE, …)
  - Unix (Sun)

- Supported by Microsoft IIS

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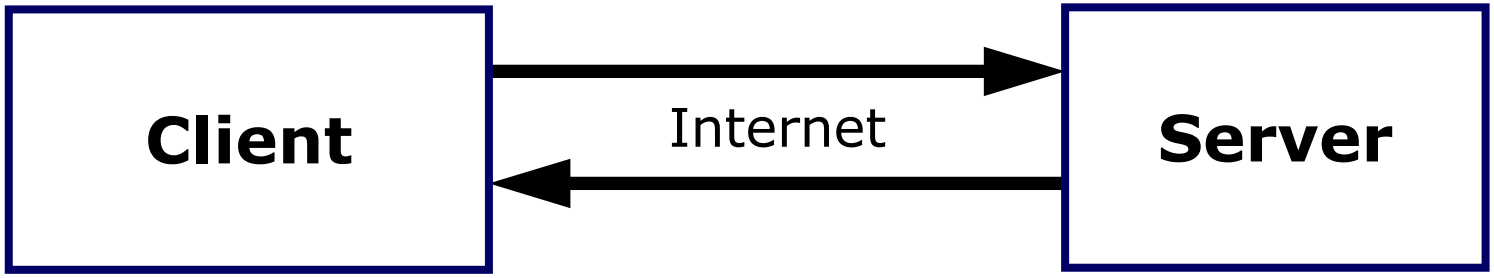
PHP – Dynamic Web Content



- Client Side Scripting
  - Java Script
  - VB Script
  - CSS
- Plug Ins
  - Flash
- Applet
  - Java
- Hilfsprogramme

- CGI
  - Perl
- Server-APIs
  - Java Servlets
- SSI
- Server Side Scripting
  - PHP
  - ASP (VB)
  - JSP
- API

More Techniques: XML, SOAP, RMI, CORBA ...

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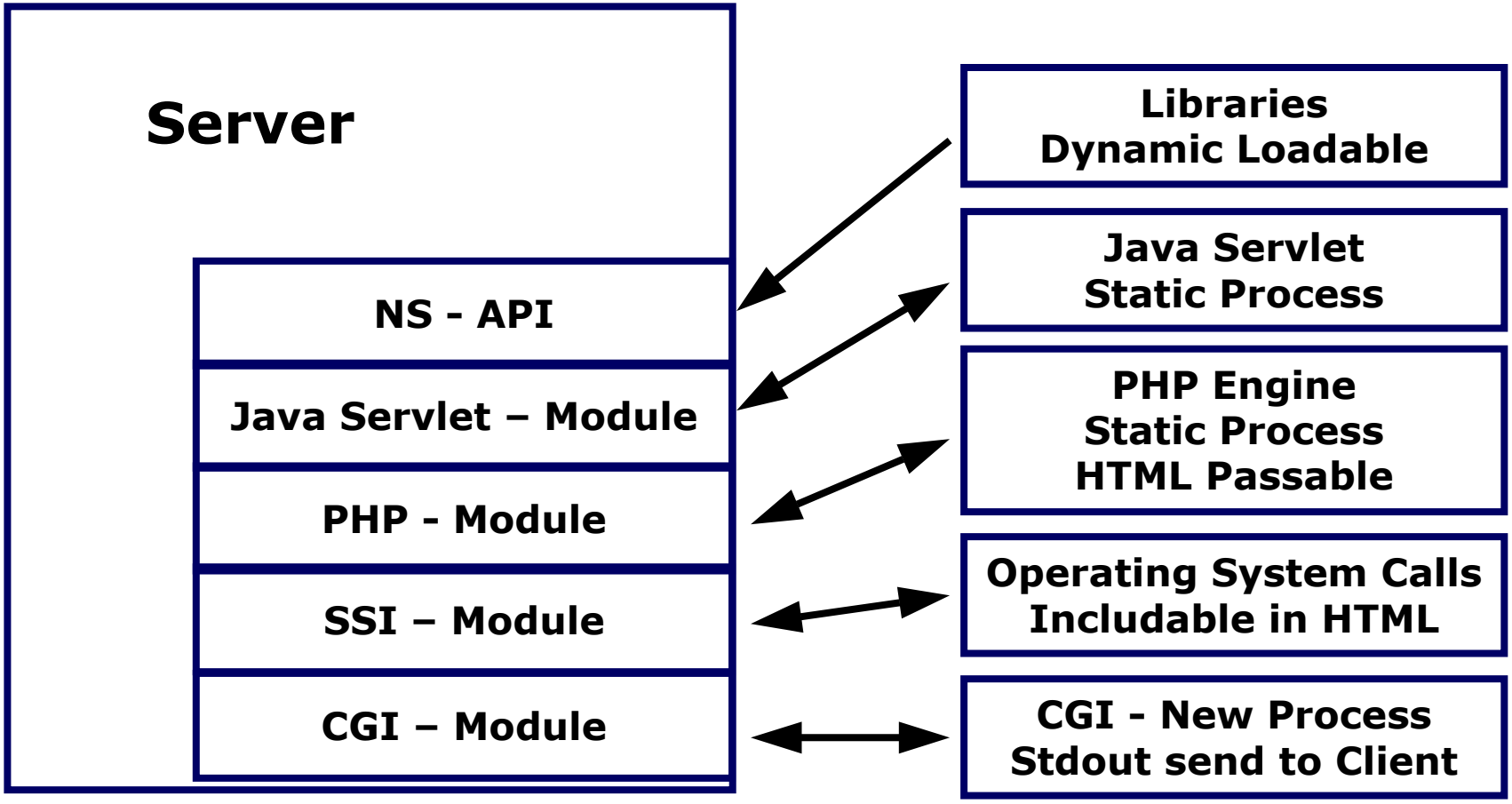
PHP – Server Side



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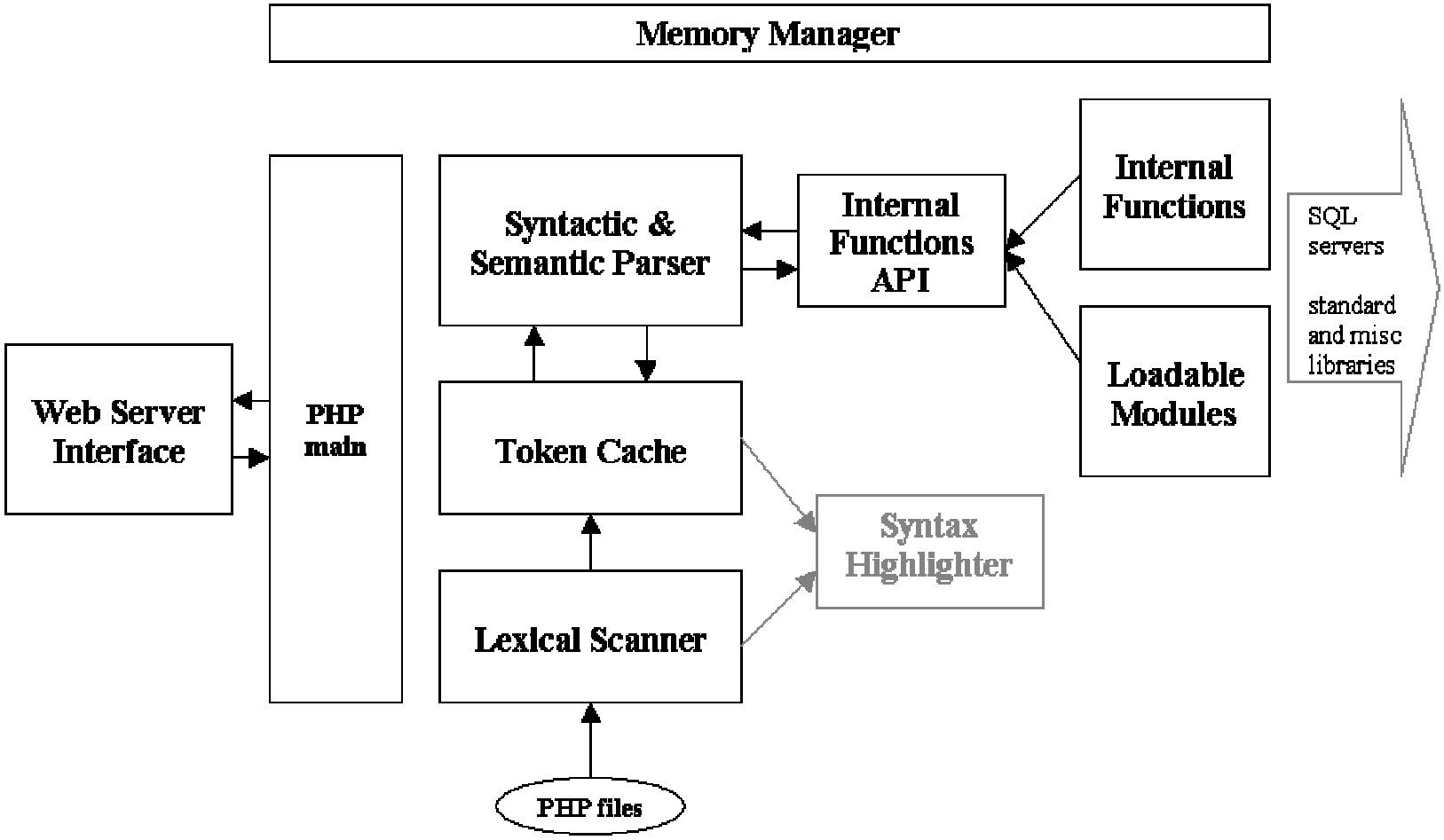
PHP – The Engine (Zend)



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PHP – Teamwork

Comparison of different server side web application technologies

-> Teams of 2

-> Read Instructions

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PHP – Teamwork Questions

Which Technology would you why use for:

- A rarely used huge online compiler
- A often accessed online shop
- A often used dynamic web content builder
- A sometimes used person database

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PHP – Teamwork Comparison

Comparison
> Difficult
> Application Dependant
> Large Differences

Performance Comparison of Alternative Solutions For Web-To-Database Applications (CGI, Java Servlets and PHP)
http://rain.vislab.olemiss.edu/~ww1/Slide_Show_Images/SCC_Amanda/SCC_Amanda.pdf

Web Application Benchmarks
http://www.chamas.com/bench/

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PHP – Main Features

- Easy database access
  (SyBase, MySQL, mSQL, Oracle, DB2, Informix, …)

- Supports all major internet standards
  (SNMP, POP, IMAP, NNTP, LDAP, …)

- Hundreds of functions as
  - dynamic generation of PDF, JPEG, ..
  - XML processing

- Open source and extendable

- -> Function List

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PHP – Function List

IV Function Reference

I Apache-specific Functions
II Array Functions
III Aspell functions [deprecated]
IV BCMath Arbitrary Precision Mathematics Functions
V Bzip2 Compression Functions
VI Calendar functions
VII CCVS API Functions
VIII COM support functions for Windows
IX Class/Object Functions
X ClibPDF functions
XI Crack functions
XII CURL, Client URL Library Functions
XIII Cybercash payment functions
XIV Crédit Mutuel CyberMUT functions
XV Cyrus IMAP administration functions
XVI Character type functions
XVII Database (dbm-style) abstraction layer functions
XVIII Date and Time functions
XIX dBase functions
XX DBM Functions
XXI dbx functions
XXII DB++ Functions
XXIII Direct IO functions
XXIV Directory functions
XXV DOM XML functions
XXVI .NET functions
XXVII Error Handling and Logging Functions
XXVIII FrontBase Functions
XXIX filePro functions
XXX Filesystem functions
XXXI Forms Data Format functions
XXXII FriBiDi functions
XXXIII FTP functions
XXXIV Function Handling functions
XXXV Gettext
XXXVI GMP functions
XXXVII HTTP functions
XXXVIII Hyperwave functions
XXXIX Hyperwave API functions
XL ICAP Functions [deprecated]
XLI iconv functions
XLII Image functions
XLIII IMAP, POP3 and NNTP functions
XLIV Informix functions
XLV InterBase functions
XLVI Ingres II functions
XLVII IRC Gateway Functions
XLVIII Java
XLIX LDAP functions
L Mail functions
LI mailparse functions
LII Mathematical Functions
LIII Multi-Byte String Functions
LIV MCAL functions
LV Mcrypt Encryption Functions
LVI Mhash Functions
LVII Microsoft SQL Server functions
LVIII Ming functions for Flash
LIX Miscellaneous functions
LX mnoGoSearch Functions
LXI mSQL functions
LXII MySQL Functions
LXIII Mohawk Software session handler functions
LXIV muscat functions
LXV Network Functions
LXVI Ncurses terminal screen control functions
LXVII Lotus Notes functions
LXVIII Unified ODBC functions
LXIX Oracle 8 functions
LXX OpenSSL functions
LXXI Oracle functions
LXXII Ovrimos SQL functions
LXXIII Output Control Functions
LXXIV Object property and method call overloading
LXXV PDF functions
LXXVI Verisign Payflow Pro functions
LXXVII PHP Options&Information
LXXVIII POSIX functions
LXXIX PostgreSQL functions
LXXX Process Control Functions
LXXXI Program Execution functions
LXXXII Printer functions
LXXXIII Pspell Functions
LXXXIV GNU Readline
LXXXV GNU Recode functions
LXXXVI Regular Expression Functions (Perl-Compatible)
LXXXVII qtdom functions
LXXXVIII Regular Expression Functions (POSIX Extended)
LXXXIX Semaphore, Shared Memory and IPC Functions
XC SESAM database functions
XCI Session handling functions
XCII Shared Memory Functions
XCIII Shockwave Flash functions
XCIV SNMP functions
XCV Socket functions
XCVI String functions
XCVII Sybase functions
XCVIII URL Functions
XCIX Variable Functions
C vpopmail functions
CI W32api functions
CII WDDX Functions
CIII XML parser functions
CIV XMLRPC functions
CV XSLT functions
CVI YAZ functions
CVII YP/NIS Functions
CVIII Zip File Functions (Read Only Access)
CIX Zlib Compression Functions

Reference:
http://www.php.net/manual/en/

PHP – Example

http://jfzh.ch

JFZH Intern

JFZH DB

PHP Use

Public Area
- Agenda
- News und Berichte
- Ortsgruppen
- Vorstand
- Formulare

Closed Area
- Self Authentifcating

JFZH DB
- Personen (Adresse / Bild / Status)
- Ortsgruppen (Funktionen / Web)
- OG-Services (Email / Export)
- Services (Backup / Beiträge / Hierarchie)

JFZH Intern
- Agenda Mutation
- News und berichte Mutation
- File Austausch

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PHP – Language Fragments

```
// Number
$a = 5;
$b = $a + 8;
```

```
// Array
$m[1] = "xyz";
```

```
// String
$h = "hallo";
```

```
if ($a < 5) {
   $b = $a + 10;
} else {
   $b = $a * 2;
}
```

```
for ($i = 0; $i < 10; $i++) {
  echo $i;
}
```


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PHP – More Language Fragments

```
function foo($arg) {
    return $arg x 5;
}
```

```
class Lab {
        var $ident;
        function get_Ident() {
                retrurn $ident;
        }
}


$l = new Lab;
$l->get_Ident();
```


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