



NEW YORK PHP

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Introduction to AMP Technology

Architectural Overview

**NYPHP Introduces AMP Technology at NYLUG
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What is PHP?

- Another clever recursive acronym: PHP
Hypertext Preprocessor
- Originally designed to complement C and Perl as CGI languages
- PHP started life as an HTML-embedded server-side language



PHP Matures

- Zend forms to create the Zend Engine
 - Handles all low-level memory/resource management and interfaces with platforms' native libraries
 - Creates a complete API for extension interaction



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PHP Extends

- Many extensions can easily be compiled or loaded dynamically to extend functionality
- Performance and flexibility come from extensions being wrappers of native C libraries
- Pertinent garbage-collection, resource management, and continuity maintained by the Zend Engine



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PHP Expands

- Native calls to MySQL, Oracle, COM, Java, LDAP, IMAP, SSL and other libraries
- Native calls to uncommon low-level functionality, including sockets, streams, direct IO, POSIX, processes, shared memory/semaphore/IPC, terminals, et al
- All with the familiar, yet streamlined, C syntax and structure



PHP Enhances

- Wrappers allow quick access to higher-level and enhanced functionality
- Including:
 - Directory and file management
 - Sockets and remote FTP/HTTP URLs as local files
 - Error handling/logging
 - Flash, PDF, images, fonts, encoding, zlib, Perl regex, sound
 - IMAP/POP3/NTTP, XML, XSLT, SOAP, WDDX, WebDAV
- More every day



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PHP Interfaces

- Numerous Server Application Programming Interfaces allow PHP native interfaces to multiple presentation layers
- SAPIs include:
 - Web daemons Apache, IIS, Zeus, et al
 - Command Line Interface (CLI), including ncurses, readline, etc.
 - GTK



PHP AMPlified

- Apache, MySQL and PHP integrate to develop a new paradigm in application construction, flexibility and delivery
- Apache provides the de-facto daemon for the standard user interface
- MySQL provides unmatched efficiency for data storage and retrieval
- Core developers from each camp tightly integrate the packages with unparalleled know-how



PHP and Apache

- Apache allows a distributed and universal presentation and interaction layer, in addition to native console, ncurses and GTK layers
- PHP is a project of the Apache Software Foundation, allowing for:
 - Incredible speed and a dedicated function set
 - Extensibility, creating a seamless PHP daemon with the socket, protocol and processing stability of Apache
 - `mod_php` clears CGI permission and structure issues
 - `Apache_hook` and Apache 2 development, providing PHP integration at every level of the Apache request, protocol and filter stacks



PHP and MySQL

- MySQL provides an extremely fast, yet comprehensive, data access mechanism
- MySQL provides an easy to implement "SQL-enabled file system"
- The flexibility of an enterprise RDBMS, including replication, user management, indexing and SQL means:
 - Faster and more reliable data access than many local disks
 - More development potential than monolithic file systems
- All with the speed and comprehensiveness of native C API calls, in a rapid-development friendly syntax



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PHP and the Future

- Zend Engine 2
 - Complete OO pragmatics, modeled after Java
 - Continuing performance, resource management and garbage collection enhancements
 - ZE2 RPC
- Apache_hooks and Apache 2 will give PHP full control over protocol request, filtering, and response stages



PHP and the Future...

- PHP joins forces with other languages
 - Java Servlet SAPI and embedded Java support
 - Load Microsoft .NET modules
 - Interact with DOM, COM and Windows DLLs
 - ActiveScript bindings for browser interaction
 - GTK support for local GUI PHP applications



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PHP and the Future...

- PEAR (PHP Extension and Application Repository)
 - OO framework for modules written in PHP
- PECL (PHP Extension C Library)
 - Interface to PHP/Zend API for modules written in C
 - Audio manipulation
- On-demand network distribution of modules, including certificate and security regulation



Staying Current

- [Zend's Weekly Mailing List Notes](#)
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