



NEW YORK PHP

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Introduction to AMP Technology

Technical Overview

NYPHP Internal Presentation
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AMP Setup and Implementation?

- Installing and configuring each component
 - Apache with Dynamic Shared Object (DSO) Support
 - Standard MySQL
 - PHP 4 as a DSO with native MySQL support
- Testing the install with phpMyAdmin
- Using AMP
 - Setting php.ini values at runtime
 - Array manipulation
 - Database connections and queries
 - Error checking and reporting



Apache 1.3.26

- `--prefix=/demo/apache`
 - Apache's tree top
- `--enable-module=so`
 - Enable DSO support (`mod_php`)
- `--with-port=8000`
- `--server-uid[gid]=praxis`
 - Only Apache children will run as this user/group



MySQL 3.23.52

Configuration and Compilation

- `--prefix=/demo/mysql`
 - MySQL's tree top
- `--with-unix-socket-path=/demo/tmp/mysql.sock`
 - Needed with multiple MySQL instances per box
- `--with-mysqld-user=praxis`
 - MySQL will completely drop root and run as this user
- MySQL offers many other configuration options:
 - DB handlers (InnoDB) provide transactions etc.
 - Compilation tweaks for improved performance
- MySQL AB binaries are recommended for production systems (notably on Linux)



MySQL 3.23.52

Configuration and Compilation

- `/demo/mysql/bin/mysql_install_db`
 - Prepare and install the 'mysql' database
 - User and permission data dictionary used internally by MySQL
- `/demo/mysql/bin/safe_mysqld &`
 - Start mysqld wrapped in a monitoring script
- `/demo/mysql/bin/mysqladmin -u root -p 'demo'`
 - Set root (superuser) password for MySQL
 - Has no bearing on operating system accounts



PHP 4.2.3

Configuration and Compilation

- `--prefix=/demo/php`
 - PHP's tree top
- `--with-apxs=/demo/apache/bin/apxs`
 - Compile PHP as an Apache DSO
- `--with-mysql=/demo/mysql`
 - Point to MySQL's native client libraries



PHP 4.2.3

Setup and Integration

- `cp php.ini-recommended /demo/php/lib/php.ini`
 - Always use `php.ini-recommended`
 - Maintainable configuration for future PHP versions
- Ensure proper `httpd.conf` directives:
 - `LoadModule php4_module libexec/libphp4.so`
 - Load PHP DSO
 - `AddType application/x-httpd-php .php`
 - Pass `.php` files to PHP
 - `AddType application/x-httpd-php-source .phps`
 - Pass `.phps` (source) files to PHP for syntax highlighting



Getting AMP Online

- The data layer (MySQL) is already started
- Fire up the interface layer:
 - `/demo/apache/bin/apachectl start`
- <http://demo.nyphp.org:8000/sql/>
 - phpMyAdmin is a good test to ensure everything is properly loaded and configured



Putting AMP to Work

`initial.phps`

- <http://demo.nyphp.org:8000/code/initial.phps>
- View source with PHP's built-in highlighting
- GET method checking as a failsafe
- Override `php.ini` setting
 - Show errors in browser (stdout)
- Get MySQL connection online
 - localhost connections use UNIX domain sockets
- Create array of queries
 - PHP forms a sequential integer-indexed array



Putting AMP to Work...

initial.phps

- Loop through queries, processing and error checking
- Reconnect to MySQL with the same DB resource
 - Different username/password implies new connection
 - Old resource is dereferenced and freed by garbage collector
- Create nested arrays for member information
 - Automatic sequential integer-indexed array
 - Each element contains a user-defined associative array
- Loop through members, forming proper query
 - INSERT will generate non-zero ID (auto_increment)



Resources

- [Zend - The PHP Company](#)
- [PHPBuilder Tutorials, Articles and Code](#)
- [PHP Triad - AMP Technology Installer for Windows](#)
- [AMP Based Professional CMS](#)
- [phpMyAdmin, phpPgAdmin, Tutorials and more](#)
- [DMOZ Open Directory PHP Tutorials](#)
- [New York PHP Projects and Knowledge Base](#)