



The PHP Company

# User Guide

## Zend Core for Oracle V2.5

By Zend Technologies, Inc.



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## **In This Guide**

This guide is intended for System Administrators and PHP developers who manage the PHP Web Servers in their organization. This guide covers the functional aspects of Zend Core for Oracle along with in-depth explanations on how to get support and other services from Zend Technologies.

Throughout this guide are instructions for guiding the reader to extra reference information about various products featured or implemented in Zend Core for Oracle.

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# Zend Core for Oracle

## Introduction

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Zend Core™ supports businesses using PHP and managing database information for mission critical web applications. It provides a seamless out-of-the-box experience delivering a stable, easy to-install and supported PHP development and production environment.

Presented in a browser-based environment, Zend Core provides a highly stable and efficient means for installing and managing PHP servers. Resources and reference information are bundled into Zend Core for "one click" access to a wide range of information, configurations and reference documents.

Using Zend Core ensures that organizations work with a stable, certified, binary distribution of PHP. In other words, Zend Core provides a constantly supported and updated generic code base. An organization's PHP will therefore be easily understood so that newcomers or external consultants can quickly get up to speed with the new environment.

## Installing Zend Core

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Zend Core for Oracle can be installed either automatically using the 'unattended installation' method, or manually using either a GUI-based interface or a text-based interface (Unix/Linux OS's only).



### To run an 'unattended' installation on Linux/Unix:

1. Download and extract the Zend Core for Oracle installation package.
2. Open your CLI.
3. In the Zend Core installation package directory, run the following command:

```
install -n
```

Zend Core for Oracle will be automatically installed according to the settings defined in the bundled core.ini file.

To change the settings, open the core.ini file, located in the 'installer' directory, and edit the required parameters, or run a manual installation.

See the Zend Core for Oracle Installation Guide for more details.



### To run an 'unattended' installation on Windows:

1. Download and extract the Zend Core installation package.
2. Create an 'answers.ini.' file following the instructions in the Zend Core for Oracle Installation Guide.
3. Open your CLI.
4. Run the following command:

```
<Zend_Core_Setup_File_Name>.exe --unattended  
<location_of_answers.ini>\answers.ini
```

e.g:

```
ZendCore-2.5.0-Windows-x86.exe --unattended C:\answers.ini
```

Zend Core will be automatically installed according to the settings defined in the answers.ini file.

To change the settings, open the answers.ini file and edit the required parameters, or run a manual installation.

See the Zend Core Installation Guide for more details.

**To install Zend Core manually:**

Windows: Double-click the Zend Core For Oracle installation.exe file and follow the on-screen instructions.

Linux/Unix: In the Zend Core installation package directory, run the command "install -g" for a GUI based installation or "install -y" for a text-based installation and follow the on-screen instructions.

Refer to the Zend Core for Oracle Installation Guide for complete installation instructions. This is located in the Zend Core Installation Package or can be downloaded from the Resources section of the Zend Core for Oracle Product page, located at <http://www.zend.com/en/products/core/resources>.

## Updating Zend Core

---

Users who have purchased a Zend Core Support Subscription (Silver, Gold or Platinum) can get periodic Zend Core Updates, including bug and security fixes. For more on Zend Support programs, and to register, see the Zend Core Support page at <http://www.zend.com/en/products/core/support>.

**Note:**

Updates and Zend Update Packages are only available to Zend Core Subscribers. If you are updating online, you must therefore ensure that your correct Zend Core Support Subscription User ID and Password (or Zend account login details) are configured in your Zend Core. To configure these settings, open the [Zend Updater](#) and select Update Zend Core | Configure Zend Network Settings.

There are two ways of downloading and installing these Updates:

1. [Updating Online](#) - Download and install one or more Updates. Updates can be downloaded and installed using the [Zend Updater](#) GUI, or by using an unattended Update command (Linux/Unix Operating systems only).

This method is only applicable for systems with a direct internet connection, or for systems that can access the internet through a proxy server. If you use a proxy server to access the internet, you must configure it during the Zend Core for Oracle installation or by opening the [Zend Updater](#) and selecting Update Zend Core | Configure Zend Network Settings | Configure Proxy Server.

**Note:**

The configured proxy server must not be one that requires authentication. If your proxy server requires authentication, please see Updating Offline, below.

2. [Updating Offline](#) - Download a Zend Update Package, containing one or more Updates, from the Zend Network Update site (<http://www.zend.com/en/products/core/updates>). The Zend Update Package can then be installed through the [Zend Updater](#) GUI or using the unattended mode (Linux/Unix Operating systems only). This method is useful for closed environments.

### 1. Updating Online - Attended

This procedure describes how to download and install Updates using the [Zend Updater](#).



**To download and install Updates using the [Zend Updater](#) (online):**

1. Open the Zend Updater.  
By default, this is located in:  
Linux/Unix: /usr/local/Zend/Core/setup/ZendUpdater  
Windows: Start | All Programs | Zend Core For Oracle v2.5 | Zend Updater.
2. Select Update Zend Core | View Available Updates.
3. A list of available Updates will be displayed.
4. Select the Updates that you would like to install and click OK.

The Updates will be downloaded and installed.

## Updating Online - Unattended

This procedure describes how to automatically Update Zend Core using a single command from your Command Line Interface. This enables you to quickly and easily download and install Updates, simplifying the process of installing Updates on a number of servers.

### Note:

This method is only available under Linux/Unix Operating Systems.



#### To automatically download and install Updates:

1. In your CLI, change to your Zend Core's setup directory (by default located at: /usr/local/Zend/Core/setup).
2. Run the following command:

```
ZendUpdater -n
```


All Updates will be automatically downloaded and installed.

## 2. Updating Offline - Attended

This procedure describes how to update Zend Core by downloading Zend Update Packages from the Zend Network site and transferring them to your system using the Zend Updater.



#### To manually download and install updates (offline):

1. Check the Zend Network website for Zend Update Packages through the following URL: <http://www.zend.com/en/products/core/updates>.
2. Download the relevant Zend Update Package depending on your operating system.
3. Open the [Zend Updater](#).  
By default, this is located in:  
Unix/Linux/Mac: /usr/local/Zend/Core/setup/ZendUpdater  
Windows: Start | All Programs | Zend Core For Oracle v2.5 | Zend Updater.
4. Click on Update Zend Core | Install Zend Update Packages.
5. Enter the location of the Zend Update Package you downloaded. (Under Windows, click on  to browse for the location.)
6. Click OK.

The Zend Update Package will be installed onto your system.

**Note:**

It is recommended to test the Updates on a test environment before applying them to a production environment.

### Updating Offline - Unattended

This procedure describes how to automatically install your Zend Update Package using a single command from your Command Line Interface. This enables you to quickly and easily install Zend Update Packages.

**Note:**

This method is only available under Linux/Unix Operating Systems.



**To download Updates and install them automatically (offline):**

1. Check the Zend Update Network website for Zend Network Updates through the following URL:  
<http://www.zend.com/en/products/core/updates>.
2. Download the relevant Zend Update Package depending on your operating system.
3. Open your core.ini file.  
By default this will be located at /usr/local/Zend/Core/setup/installer.
4. Edit the 'UpdatePackageFile' parameter with the name of the package you downloaded. Ensure the 'LocalRepository' parameter contains the path to the location of your Zend Update Package.
5. In your CLI, change to your Zend Core's setup directory (by default located at: /usr/local/Zend/Core/setup).
6. Execute the following command:

```
ZendUpdater -p
```

The Zend Update Package will be installed onto your system.

### Consistency Checking

The Zend Updater performs consistency checks to prevent you from installing Updates which are dependent on other, uninstalled Updates.

However, if necessary you can force the download of these Updates through the Zend Updater. (Not recommended.)

## Rollbacks (Removing previous Updates)

Update transactions are preserved so that Updates can be removed and the system can be 'rolled back' to a previous state. This action is referred to as a Rollback.

Rollbacks are stored and displayed with the date and time that your system was modified and Updates installed. Selecting a Rollback will revert your system back to the state it was in on the selected time/date.

Rollbacks can be performed either through the Zend Updater (attended Rollback) or through a CLI command (unattended Rollback - only available under Linux/Unix Operating Systems).

### Attended Rollbacks

This procedure describes how to execute an attended Rollback to a specific recent system state, using the Zend Updater.



#### To execute an attended Rollback:

1. Open the [Zend Updater](#).

By default, this is located in:

Linux/Unix: /usr/local/Zend/Core/setup/ZendUpdater

Windows: Start | All Programs | Zend Core For Oracle v2.5 | Zend Updater.

2. Select Update Zend Core | Rollback.

A list of previous system states will be displayed, listed according to the date and time that new Updates were installed.

3. Select a required system state and click OK.

Any Updates installed since this version will be deleted.

## Unattended Rollbacks

This procedure describes how to execute an unattended Rollback, to the LAST system state only, using a CLI command. This method is useful for executing a Rollback on several servers at once.



### To execute an unattended rollback (Linux/Unix):

1. In your CLI, change to your Zend Core's setup directory (by default located at: /usr/local/Zend/Core/setup).
2. Execute the following command:

```
ZendUpdater -r
```

The system will be restored to the LAST system state.

### Note:

Rollback information is stored so that your system can be restored to a previous state.

Two parameters have been defined to ensure that the rollback feature consumes the least disk space possible:

1. Maximal disk space allocated for backups (Default maximum disk space consumption = 100Mbytes).
2. Only the last ten update transactions will be stored, provided they do not exceed 100Mbytes.

In addition, you can choose to delete Rollback information (see below).



### To delete Rollback information:

1. Open the [Zend Updater](#).  
By default, this is located in:  
Linux/Unix: /usr/local/Zend/Core/setup/ZendUpdater  
Windows: Start | All Programs | Zend Core For Oracle v2.5 | Zend Updater.
2. Select Update Zend Core | Delete Rollback information.  
A list of available Rollbacks will be displayed.
3. Select a Rollback and click OK.

System state information contained in the Rollback will be deleted.

## Zend Updater

The Zend Updater allows you to configure all aspects of your Zend Core system, and lets you download and install Updates and additional components.

By default, the Zend Updater is located at:

Unix/Linux: /usr/local/Zend/Core/setup/ZendUpdater.

Windows: Start | All Programs | Zend Core for Oracle v2.5 | Zend Updater.

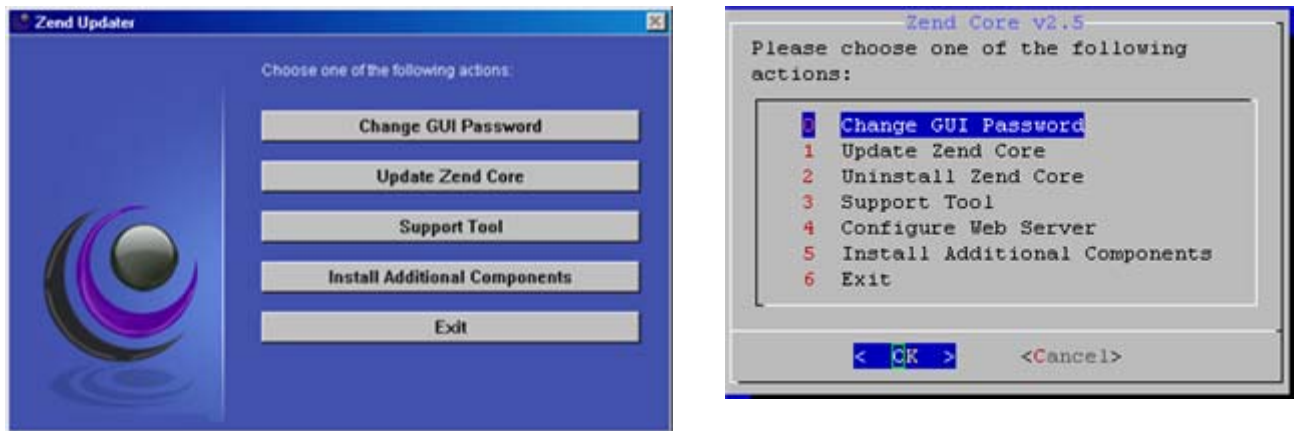


Figure 1 - Zend Updater

The Zend Updater allows you to carry out the following actions:

- [Change GUI Password](#) - Change the password defined in the installation process.
- [Update Zend Core](#) - Displays a list of options regarding Zend Core Updates and component configuration.
- [Uninstall Zend Core](#) - Removes Zend Core and all its components from your system. Only available in Linux/Unix
- [Support Tool](#) - Allows access to the Support Tool which gathers system information in order to improve Zend Core Support.
- [Configure Web Server](#) - Allows the selection of the Web Server to be used with Zend Core.  
Only available in Linux/Unix
- [Install Additional Components](#) - Displays a list of optional additional components that can be installed.
- **Exit** - Exits the Zend Updater.

## Change GUI Password

Allows you to change your password for accessing the Zend Core Administration Web GUI.

You must restart your web server after changing your password.

See '[Changing your GUI Password](#)' under the '[Getting Started](#)' topic for more information.

## Update Zend Core

The 'Update Zend Core' option provides you with easy access to Updates, Zend Update Package Installation, Rollback management capabilities, component deletion and Zend Network configuration.

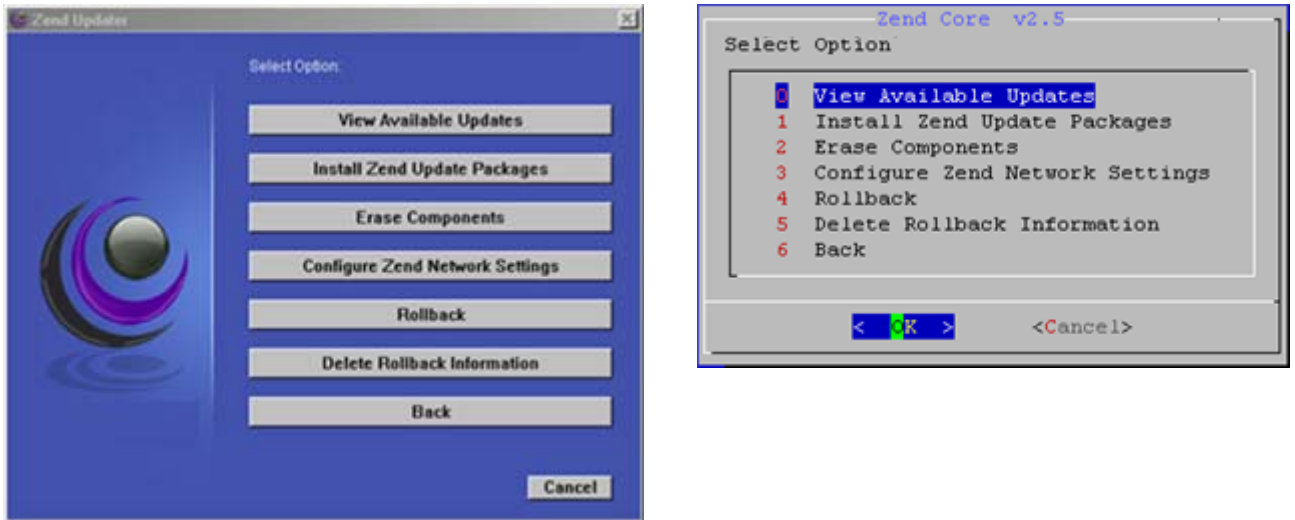


Figure 2 - Update Zend Core

The 'Update Zend Core' menu includes the following options:

- **View Available Updates** - Displays a list of available Updates and allows you to install them. Select the required update(s) and click OK to install.

### Note:

You must be registered for a Zend Support Subscription (Silver, Gold or Platinum) in order to have access to Updates.

For more on Zend Support Subscriptions, and to register, see the Zend Core Support page at <http://www.zend.com/en/products/core/support>.

See '[Updating Online](#)' in the 'Updating Zend Core' Chapter for more on installing Updates through the Zend Updater.

- **Install Zend Update Packages** - Allows you to install Zend Update Packages which you have downloaded from the Zend Update site. Zend Update Packages are files containing a set of the latest Updates available from the Zend Update page, located at <http://www.zend.com/en/products/core/updates>.

**Note:**

You must be registered for a Zend Support Subscription (Silver, Gold or Platinum) in order to have access to Updates. For more on Zend Support Subscriptions, and to register, see the Zend Core Support page at <http://www.zend.com/en/products/core/support>.

See '[Updating Offline](#)' in the 'Updating Zend Core' chapter for more on installing Updates through the Zend Updater.

- **Erase Components** - Allows you to delete Zend Core components, including libraries and extensions. If you have chosen to delete a component which other installed components are dependent upon, a prompt will appear asking for confirmation of the components' deletion.
- **Configure Zend Network Settings** - Allows you to specify/edit your Zend Support Network User ID and Password and to configure your proxy server. You only need to configure a proxy server if you use a proxy server to connect to the internet.

**Note:**

The configured proxy server must not be one that requires authentication.

You must enter a Zend Support Network User ID and Password in order to be able to find and install Updates using the Zend Updater.

**Note:**

For more on Zend Support subscriptions, and to register, see the Zend Core Support page at <http://www.zend.com/en/products/core/support>.

- **Rollback** - Allows you to implement a Rollback. Rollbacks will delete Updates and revert your Zend Core back to a previous state. For more information, see the '[Rollbacks](#)' section under the 'Updating Zend Core' chapter.

- **Delete Rollback Information** - Removes Rollback information to increase disk space.

For more information, see the ['Rollbacks'](#) section under the 'Updating Zend Core' chapter.

## Uninstall Zend Core

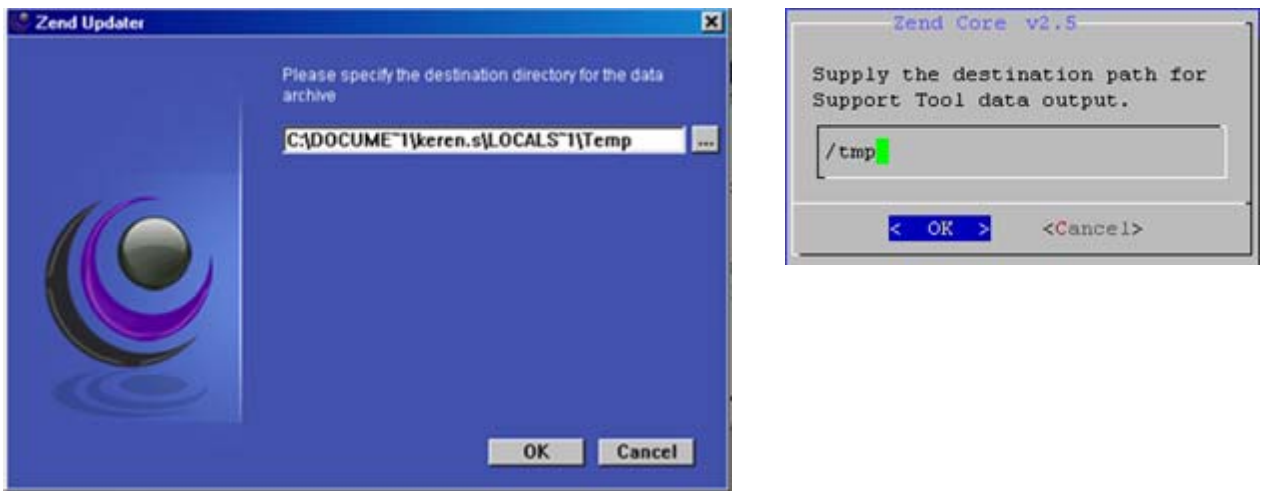
Completely removes Zend Core and all its components from your system.

**Only available under Linux/Unix Operating Systems.**

To uninstall Zend Core on Windows, use the 'Add or Remove Programs' option in your Control Panel.

## Support Tool

The Zend Support Tool is a tool for gathering information about your system configuration and setup. This tool allows the Zend Support Team to solve problems in a more comprehensive and efficient way.



*Figure 3 - Support Tool File Location*

To create a file containing the above system information which can be sent to the Zend Support Team, specify the destination directory where the file will be created and click OK.

After the file is created it can be sent to Zend Support if the need for support arises. See [Appendix A - Support Tool Information](#) for a complete list of the information collected by the Support Tool.

**Note:**

For more on Zend Support programs, and to register to the Zend Network, see the Zend Core Support page at <http://www.zend.com/en/products/core/support>.

**Configure Web Server**

Under Unix/Linux Operating Systems, you can choose the Web Server to be used with Zend Core by selecting an installed Apache package.

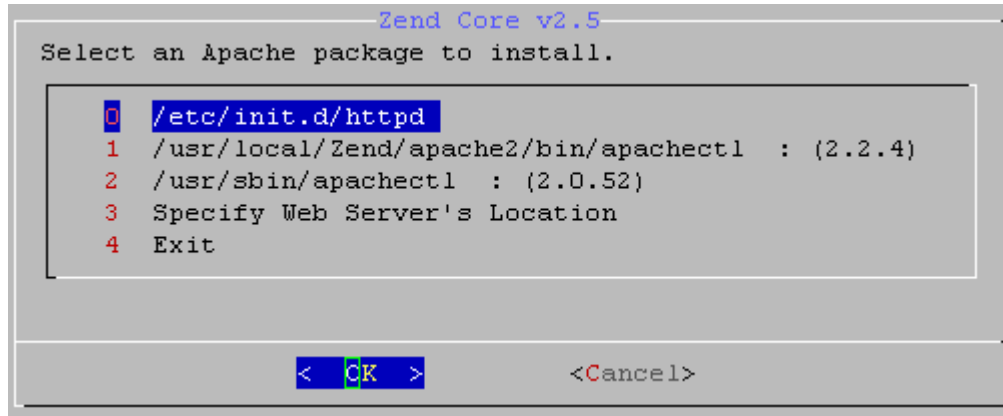


Figure 4 - Apache Package Selection

**Note:**

Apache versions 2.0 onwards must be compiled in prefork mode.

**To configure your Web Server for use with Zend Core:**

1. Select one of the existing detected Apache installations (if available)  
-Or- select to specify your web server's location and enter the location of your apachectl script.

The following message will then appear (the message will vary slightly according to your settings):

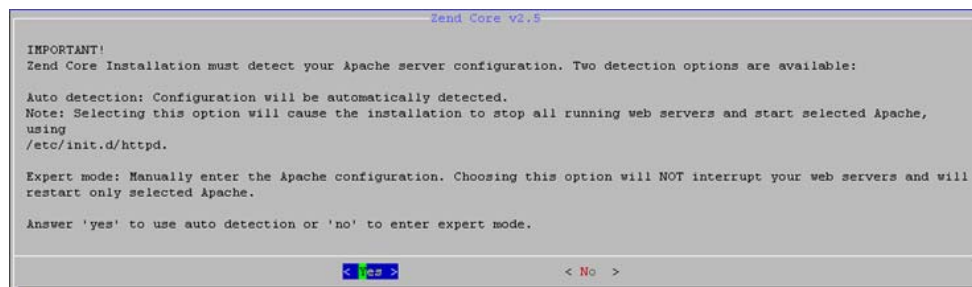


Figure 5 - Apache server Detection Method

- i. Select Yes for your Apache server configuration to be automatically detected.  
Selecting this option will cause all running web servers using the specified Apache to stop.  
You will be prompted to confirm you Apache startup command.
- ii. Select No to manually select your Apache configuration.  
Selecting this option will NOT interrupt your Web Servers and will restart only the selected Apache.  
If you choose this option, enter your Apache configuration file location in the following dialog:

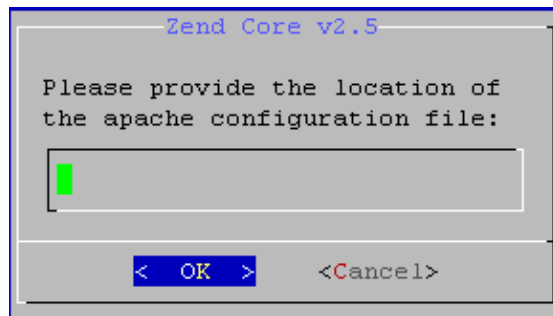


Figure 6 - Apache Configuration File Location

- 2. Click OK to continue.  
Your Apache settings will be detected and displayed.

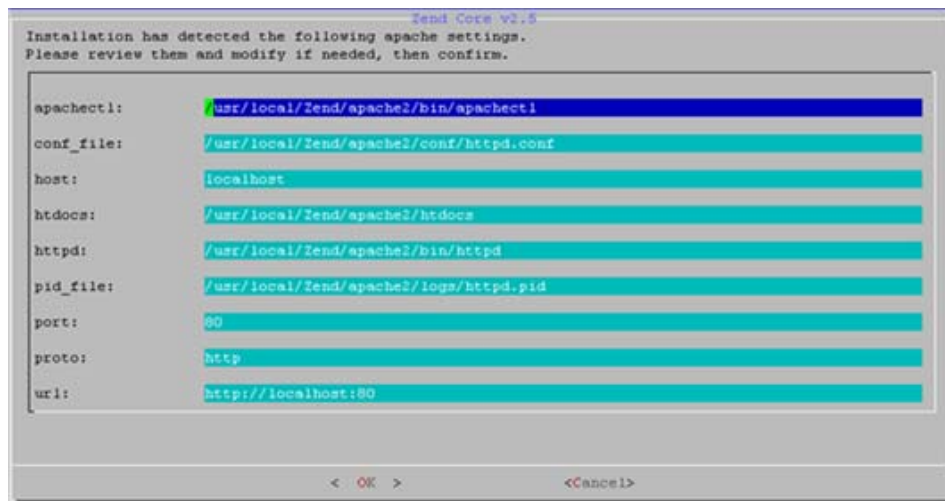


Figure 7 - Apache Settings

- 3. Edit the settings if necessary and click OK.

Your Apache Server will be configured for use with Zend Core.

## Install Additional Components

Allows you to install components which were not installed during the initial Zend Core installation.

### Note:

To install additional components 'offline', please contact the Zend Support team.

The options are:

- **Install Zend Framework** - Zend's high-quality open source Framework. See <http://framework.zend.com> for more details.
- **Install MySQL** - The MySQL 5 database
- **Install Oracle IC**- Oracle Instant Client Libraries. These are necessary for connecting to your Oracle Database via the oci8 and pdo\_oci extensions. See <http://www.php.net/manual/en/function.oci-connect.php> for information on using the oci\_connect function to connect to your Oracle database.
- **Zend Core's Bundled Apache** (Only available on Linux/Unix) - The Apache Server available with Zend Core. To configure Zend Core for use with an existing Apache server, select the 'Configure Web Server' option on the Zend Updater menu. (See '[Configure Web Server](#)', above, for more information.)

## Getting Started

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### Logging In

Once the installation process has completed, you will be ready to login to your Zend Core Administration Web GUI.

#### Note:

Since the Zend Core GUI is a Web-based interface, it can be accessed from any machine running a standard Web browser. If you wish to access it from the web-hosting machine, make sure you have a browser which meets the system requirements described on the Zend Core Website:

<http://www.zend.com/en/products/core/system-requirements>.




#### To access the Zend Core Administration Web GUI :

1. Go to `http://<your-host>:<port>/ZendCore`  
By default this will be `http://localhost/ZendCore`  
-or- In Windows, go to Start | All Programs | Zend Core for Oracle | Zend Core Administration.



Figure 8 - Zend Core Login Screen

2. To login, type the password you defined in the installation process and click the arrows . (If you installed Zend Core using the unattended installation method, the default password will be "password".)
3. Your Zend Core Administration Web GUI will open.

## Changing your Zend Core GUI Password

Your Zend Core login password can be changed from the Zend Updater in case it is misplaced or needs to be changed.



### To change your password:

1. Open the Zend Updater.

By default, this is located in:

Linux/Unix: /usr/local/Zend/Core/setup/ZendUpdater

Windows: Start | All Programs | Zend Core For Oracle v2.5 | Zend Updater.

2. Select the "Change GUI Password" option.
3. Follow the instructions and confirm your selection.
4. Select "Exit" to close this prompt and change your password.
5. You must restart your web server for the settings to take effect.

To restart your web server:

Under Windows:

Open your Apache Monitor (by default located in C:\Program Files\Zend\Apache2\bin\ApacheMonitor.exe if you installed Zend Core's bundled Apache) and select Restart.

Under Windows Vista, you must restart the server from your Services Manager.

Under Linux/Unix:

Click the Restart Server button  [Restart Server](#), found in the top-right of the Zend Core Administration GUI.

The next time you login to the system, the new password will be activated.

## Functional Overview

---

Zend Core provides a "single point of access" for configuration, documentation, support, monitoring and control of your PHP and Web Server as follows:

- [PHP Configuration](#) - Configure and view existing PHP configurations and changes in a phpinfo display.
- [Reference Information](#) - Search reference information included in Zend Core to get immediate answers to questions. Zend Core provides advanced search functionality by searching across all included reference information at once.
- [Support](#) - Directly access Zend Support and information regarding Zend products and services.
- [Server Monitoring and Control](#) - View the overall condition of the server.
- [Extension Configuration](#) - Control the extensions loaded in your environment.
- [Benchmarking](#) - Measure performance standards to make your applications more efficient.

## Zend Core and Zend Framework

---

Zend Framework is a high quality open source framework for developing Web Applications and Web Services with PHP.

The Zend Framework is a collection of common PHP classes which sits above the PHP layer. It packages classes and code, used for common functions such as connecting to databases and creating PDF's, into one easy-to-use application. Using the Zend Framework negates the need for developers to rewrite already existing code, and so significantly speeds up the development process as well as providing the stability ensured by the use of proven code patterns.

While Zend Framework provides an almost ready to use application, it also grants complete flexibility, allowing developers to adapt the application to their own needs. The expertise of the qualified PHP developers who have worked on the project have ensured a high-quality, stable tool. Zend Framework is covered by unit tests, automatic self-testing mechanisms which ensure that the Framework is constantly tested and monitored.

In addition, Zend Framework has a clean IP. All contributors to the project have signed a contributor license attesting that their contributions have not been previously copyrighted, thus ensuring peace of mind for developers and allowing free use of all content within the Framework.

For more on Zend Framework, visit the Zend Framework Homepage at <http://framework.zend.com>.

### Installation

Zend Framework is available as an optional component during the Zend Core installation process. If you did not install Zend Framework during your Zend Core installation, you can install it using the [Zend Updater](#) (see below).

### Updating

As Zend Framework is an open source project, new updates are constantly being added.

For the latest Zend Framework news and updates, make sure you are added to Zend Framework's mailing list:

<http://framework.zend.com/wiki/display/ZFDEV/Contributing+to+Zend+Framework#ContributingtoZendFramework-Subscribetotheappropriatemailinglists>

Alternately, visit the Zend Framework portal in order to see the latest Zend Framework news: <http://framework.zend.com>



### To install/update Zend Framework:

1. Open the Zend Updater.  
By default, this is located in:  
Linux/Unix: /usr/local/Zend/Core/setup/ZendUpdater  
Windows: Start | All Programs | Zend Core For Oracle v2.5 | Zend Updater.
2. Select 'Install Additional Components'.
3. Select 'Install/Update Zend Framework'.

The latest version of Zend Framework will be downloaded and its location automatically added to the include path in your php.ini file.

#### Note

During the Zend Core installation, the Zend Framework library will be placed in a folder entitled "ZendFramework".

By default, this can be found in:

Linux/Unix: /usr/local/Zend/ZendFramework

Windows: C:\Program Files\Zend\Core for Oracle f\ZendFramework

### Loading Zend Framework classes

Once Zend Framework's library has been added to your include path, there are two ways to load Zend Framework's classes in your script:

#### 1. Using the Zend Loader:

The Zend Loader utility class checks whether the class already exists within the script. If it does, it will create the relevant file from the class name using Zend Framework's naming convention (See <http://framework.zend.com/manual/en/coding-standard.naming-conventions.html> for more information on Zend Framework's naming conventions). If the class already exists, this will speed up performance.

Using the Zend Loader also has the added advantage of loading classes outside of Zend Framework.

**To use the Zend Loader:**

1. Load the Zend Loader utility class once in your script:

```
Require_once 'Zend/Loader.php';
```

2. From now, load each class using the class name:

```
Zend_Loader::loadClass('Zend_Class_Name');
```

For example, in order to load the Zend Http Client:

```
Zend_Loader::loadClass('Zend_Http_Client');
```

## 2. Using require / include calls

Classes can also be called using the conventional require or include calls:

**To use 'require class':**

Enter a 'require' command for the relevant file into your script:

```
Require 'File.php';
```

For example, to require the Zend Http Client Class:

```
require 'Zend/Http/client.php';
```

In order to see a full list of Zend Framework's components, including more information on the functionality and use of the various components, see

<http://framework.zend.com/manual>

## User Interface

---

The Zend Core Web Administration GUI is a tab-based environment for navigating through the Main Menus. Each of the Main Menus include tabbed sub-menus that change according to the active tab.

The Main Menus and Menu Options include the following:

Main Menu	Menu Options
<a href="#"><u>Control Center</u></a>	<a href="#"><u>System Overview</u></a> <a href="#"><u>phpinfo</u></a> <a href="#"><u>Benchmark</u></a> <a href="#"><u>Support</u></a> <a href="#"><u>Updates</u></a>
<a href="#"><u>Configuration</u></a>	<a href="#"><u>PHP</u></a> <a href="#"><u>Extensions</u></a> <a href="#"><u>Zend Products</u></a> <a href="#"><u>Misc. Directives</u></a> <a href="#"><u>Zend Studio Server</u></a>
<a href="#"><u>Documentation</u></a>	<a href="#"><u>PHP</u></a> <a href="#"><u>Search</u></a>

### Note:

Each one of the above-mentioned options is described in detail in their own dedicated section in the Zend Core for Oracle User Guide.

## Control Center

The Control Center is the main system-profiling component for monitoring, testing and configuring server performance and activity. The tab's functionality provides System Administrators with an overall display, essential information, and URL testing capabilities.

The tabs included under the Control Center are:

- [System Overview](#) - Displays information about the server's environment and activities.
- [phpinfo](#) - Displays information about the current state of PHP.
- [Benchmark](#) - A performance standard for measuring Web Server performance and durability.
- [Support](#) - Instant access to Online Resources.
- [Updates](#) - View all available Updates.

## System Overview

The System Overview tab is a server-monitoring screen that provides valuable information regarding the server's environment and activities. This screen collects information for immediate display that would otherwise require the time consuming task of searching for these details.

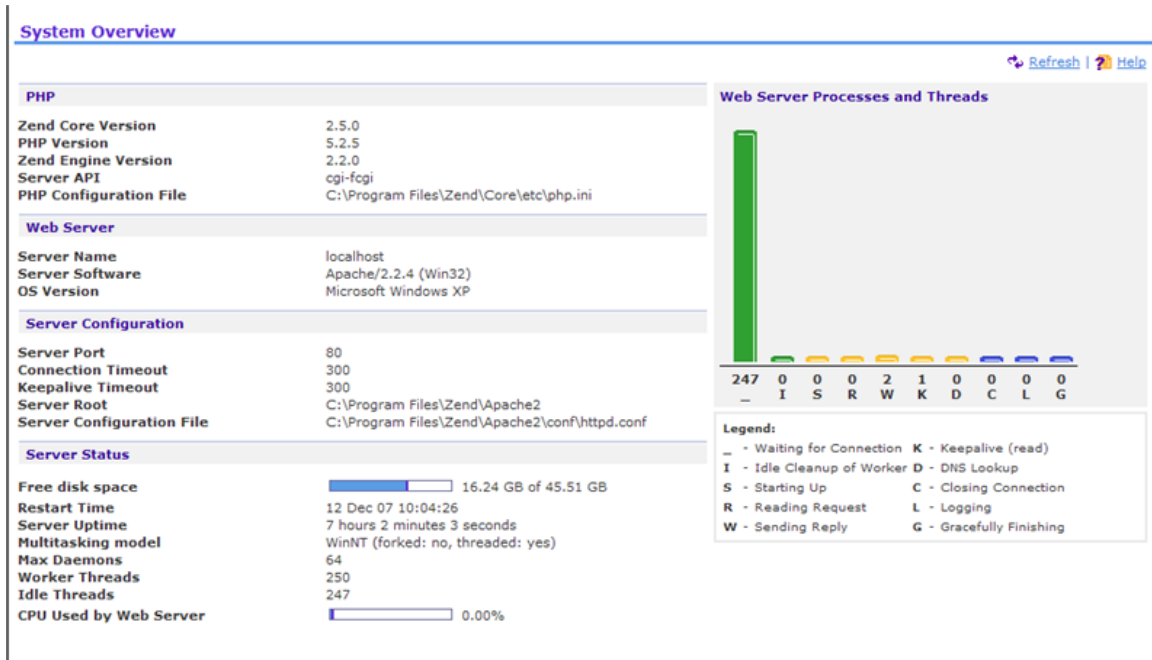


Figure 9 - Control Center Tab &endash; System Overview

The System Overview Screen displays the following information:

### PHP

Displays information about the PHP version installed on the server. The information includes which Server API the PHP uses and the location of the PHP configuration file on the server.

### Web Server

Displays the Web Server's name and details about the Operating System's environment.

### Server Configuration

Displays the Web Server's port number, root directory and connection time-out durations, along with the location of the Server Configuration file.

### Server Status

Displays an accumulated list detailing the various activities on the server.

### Disk Space

Displays the amount of free disk space available, displayed through bar charts of the partitions and free disk space that give an easy view of the server's disk space status.


Only available under Linux/Unix.

### Web Server Processes and Threads

This bar graph display shows a snapshot of the various threads that are running on the server.


#### Note:

The System Overview screen information can be refreshed using the Refresh button

 [Refresh](#) situated in the top-right corner of the screen.

### PHPinfo

The PHPinfo screen is a read-only screen that outputs a large amount of information about the current state of PHP. It is an easily accessible representation of information contained in the php.ini file, including information about PHP compilation options and extensions, the PHP version, server information and environment, PHP environment, OS version information, paths, master and local values of configuration options, HTTP headers and the PHP License.

**PHP Version 5.2.5** 

<b>System</b>	Windows NT PC-KERENS 5.1 build 2600
<b>Build Date</b>	Nov 15 2007 17:36:44
<b>Configure Command</b>	<pre> cscript /nologo configure.js "--enable-prefix=C:\cygwin\tmp\build.core-php-nts-5.2.5.552 \core-php-nts-5.2.5\php-5.2.5\." "--with-openssl=C:\cygwin\tmp\build.core-php-nts- 5.2.5.552\core-php-nts-5.2.5\php-5.2.5\." "--with-extra-includes=C:\cygwin\tmp\build.core- php-nts-5.2.5.552\core-php-nts-5.2.5\php-5.2.5\.\usr\include" "--with-extra- libs=C:\cygwin\tmp\build.core-php-nts-5.2.5.552\core-php-nts-5.2.5\php-5.2.5\.\usr\lib" "-- disable-ipv6" "--disable-bcmath" "--disable-calendar" "--disable-ftp" "--without-gd" "-- disable-odbc" "--without-sqlite" "--disable-tokenizer" "--with-libxml" "--with-iconv" "--disable- force-cgi-redirect" "--enable-fastcgi" "--enable-cli-win32" "--enable-pdo" "--disable-zts" "-- disable-xmlwriter"                     </pre>
<b>Server API</b>	CGI/FastCGI
<b>Virtual Directory Support</b>	disabled
<b>Configuration File (php.ini) Path</b>	C:\windows
<b>Loaded Configuration File</b>	C:\Program Files\Zend\Core\etc\php.ini
<b>PHP API</b>	20041225
<b>PHP Extension</b>	20060613
<b>Zend Extension</b>	220060519
<b>Debug Build</b>	no
<b>Thread Safety</b>	disabled
<b>Zend Memory Manager</b>	enabled
<b>IPv6 Support</b>	disabled
<b>Registered PHP Streams</b>	https, ftps, php, file, data, http, ftp, compress.zlib
<b>Registered Stream Socket Transports</b>	tcp, udp, ssl, sslv3, sslv2, tls
<b>Registered Stream Filters</b>	convert.iconv.*, string.rot13, string.toupper, string.tolower, string.strip_tags, convert.*, consumed, zlib.*

This program makes use of the Zend Scripting Language Engine:  
 Zend Engine v2.2.0, Copyright (c) 1998-2007 Zend Technologies  
 with Zend Core v2.5.0, Copyright (c) 1998-2006, by Zend Technologies  
 with Zend Extension Manager v1.2.0, Copyright (c) 2003-2007, by Zend Technologies  
 with Zend Optimizer v3.3.2, Copyright (c) 1998-2007, by Zend Technologies  
 with Zend Debugger v5.2.10, Copyright (c) 1999-2007, by Zend Technologies

Powered By




Figure 10 - Control Center Tab &ndash; phpInfo (p.1)

### Changing phpInfo

Zend Core's GUI allows easy changing of PHPinfo through the [Configuration tab](#). Any changes made to the extensions and directives in this tab will be automatically updated in your php.ini file and will be reflected in the PHPinfo tab.

**Note:**

Configuration changes will only take effect once the server has been restarted.

More information about the PHPinfo display can be found in the PHP Manual, accessed by going to the Documentation Tab | PHP and clicking on "PHP Options and Information", Chapter VI., section LV.

## Benchmark

Benchmarking is part of the Zend Core environment for building and deploying Web applications. Benchmarks are performance standards for measuring Web Server performance and durability while providing a means for analyzing Web Page performance.

The screenshot shows the 'Benchmark' control panel. It features a 'Test URL' field with the value 'http://vmserver64-rhel3-4:80/'. Below this are two radio buttons: 'Perform' (selected) and 'Test for'. The 'Perform' option is linked to a field containing '1' and the unit 'request(s)'. The 'Test for' option is linked to a field and the unit 'second(s)'. There is a 'Concurrent Connections' field with the value '1'. A 'Use Keepalive' checkbox is unchecked. A 'Request Headers' field is empty. The 'Use Cookies' section contains a table with 'Name' and 'Value' columns, and a 'Run' button is at the bottom right.

Figure 11 - Control Center Tab - Benchmark



### To run a benchmark test on a URL:

1. Specify the complete URL to be tested, including port number.
2. Choose the amount of requests to perform  
-Or- specify the duration (in secs) for which the test will run.
3. Specify the amount of concurrent connections to be simulated in the test.  
The limit is 64 concurrent connections, in order to prevent overloading the system.


**Note:**

Web server timeouts can limit the ability to benchmark multiple connections on your Web server. If you carry out multiple-connection benchmarking, the benchmarking process may be terminated due to your server's timeout limits.

The default Apache Web server timeout is 300 secs. The default IIS Web server timeout is 120 secs.

Refer to your Web server's user guide for complete information on how to reconfigure your Web server's timeouts.

In addition, the number of permitted concurrent connections depends on the testing system's capacity. You should not exceed the maximum permitted number of connections for your system.

4. The "Use Keep Alive" option pertains to Web sites that support the HTTP Keep Alive option. Selecting this option keeps the connection open while running the test. This is as opposed to opening and closing connections for every request.
5. Add header lines to the request if necessary.
6. Add a cookie by implementing the following steps:
  - i. Add the name of the cookie and its value and press Add Cookie.
  - ii. The list will expand for adding additional Cookies to the list.
  - iii. Press Delete Cookie to remove a Cookie from the test.
7. To run the Benchmark test, click .

Test results are displayed next to the test parameters as follows:

### Benchmark Results

<b>Time taken for tests</b>	0.001 seconds
<b>Complete Requests</b>	1
<b>Requests per Second</b>	1000.00
<b>Failed Requests</b>	0
<b>Non-2xx responses</b>	0
<b>Mean Time per Request</b>	1.00 ms
<b>Mean Time per Request (across all concurrent connections)</b>	1.00 ms
<b>Transfer Rate</b>	264.00 Kbytes/sec
<b>Total Transferred</b>	264 B
<b>HTML Transferred</b>	4 B

*Figure 12 - Benchmark Result Screen*

- **Time Taken for Tests** - The duration of the test.
- **Complete Requests** - The number of tests performed.
- **Requests Per Second** - Sum of completed tests divided by the time taken for each request.
- **Failed Requests** - The number of failed tests out of the sum of complete requests.
- **Non-2xx Responses** - The amount of tests that did not get a response containing 2xx from the server (this is a failure indication).
- **Mean Time per Request** - Average time per request.
- **Mean Time per Request (across all concurrent connections)** - Average time per request for all connections.
- **Transfer Rate** - Calculated as the sum of Bytes transferred divided by the time it took to transfer the Bytes.
- **Total Transferred** - The total quantity of Bytes transferred during the test.
- **HTML Transferred** - The amount of HTML code transferred (taken from the Total Transferred).

## Support

The Support screen provides instant access to Online Resources. From here, users can get support, provide product feedback and benefit from the PHP community's knowledge and support.

### Support

---

Zend offers various support subscriptions in order for you to keep your PHP updated and secured. If you are subscribed to a Zend Core support program, you can update your Zend Core environment using the Zend Updater. Please see the Zend Core User Guide for more information.

- Information on Zend Core Support can be found in page [Zend Core Support Subscriptions](#)
- Submit your product feedback to the [Zend Core Product Team](#)
- PHP information and resources can be found at the [Zend Developer Zone](#)

*Figure 13 - Support Tab*

This screen includes links to:

- **Zend Core Support and Knowledge base** - Provides access to the Zend Core Support Subscription page, through which you can register for a Zend Core Support Subscription in order to have access to the latest security Updates.  
This can be accessed from <http://www.zend.com/en/products/core/support>.
- **Product feedback** - Allows you to e-mail the Zend team with your comments and suggestions. Please send e-mails to [core-feedback@zend.com](mailto:core-feedback@zend.com).
- **Zend Developer Zone** - Gives access to the latest PHP information from the Zend Developer Zone.  
This can be accessed from <http://www.zend.com/en/developers.php>.


## Updates

The Updates screen provides a view of available Updates based on your Zend Support Network registration information.

A color-coded legend indicates the status of each Update. (This will only be available if you have configured your Zend Support Network login details. See below.)

Component	Summary	Installed Version	Latest Version
Apache Support	Apache 1.3.x modules	5.2.1-1	5.2.3-1
Apache2 Support	Apache 2 modules	5.2.1-1	5.2.3-1
Apache22 Support	Apache 2.2 modules	5.2.1-1	5.2.3-1
IIS Support	IIS FCGI		5.2.3-1
IIS Support 64	IIS FCGI 64 bit		5.2.3-1
PHP	PHP	5.2.1-1	5.2.3-2
ZendCoreGUI	Zend Core GUI files	1.0-6	1.0-6
ZendCoreGUI/php_doc	PHP Manual	1.0-1	1.0-1
ZendCoreInstaller	Zend Core installer	1.0-11	1.0-16
ZendDebugger	Zend Debugger	5.2.1-1	5.2.7-1
ZendExtensionManager	Zend Extension Manager	1.0.10-1	1.0.10-1
ZendOptimizer	Zend Optimizer	3.2.7-1	3.2.8-1
ext/bcmath	PHP extension with arbitrary precision mathematics functions	5.2.1-1	5.2.3-1
ext/bz2	PHP extension allowing to transparently read and write bzip2 (.bz2) compressed files	5.2.1-1	5.2.3-1
ext/calendar	PHP extension providing functions to simplify converting between different calendar formats	5.2.1-1	5.2.3-1
ext/curl	PHP extension providing functions to connect and communicate to different types of servers	5.2.1-1	5.2.3-1
ext/exif	PHP extension providing functions for working with image meta data	5.2.1-1	5.2.3-1

Figure 14 - Control Center Tab &ndash; Updates

To refresh the view and check for more Updates from the Zend Support Network, click the "Check Updates" button  [Check Updates](#), located in the top-right corner of the page.

If Updates are available, a message will be displayed at the top of the screen saying 'Update Zend Core.'

Available Updates can be downloaded and installed automatically using the [Zend Updater](#).

See the '[Updating Zend Core](#)' chapter for more on how to install Updates.

**Note:**

You must be registered for a Zend Support Subscription (Silver, Gold or Platinum) in order to have access to Updates.

If your Zend Core Support Subscription User ID and Password have not been configured in Zend Core, you will receive an error message.

For more on Zend Support Subscriptions, and to register, see the Zend Core Support page at <http://www.zend.com/en/products/core/support>.



**To configure your Zend (Network) Support Subscription User ID and Password:**

1. Open the Zend Updater.  
By default, this is located in:  
Linux/Unix: /usr/local/Zend/Core/setup/ZendUpdater  
Windows: Start | All Programs | Zend Core For Oracle v2.5 | Zend Updater.
2. Select Update Zend Core.
3. Select Configure Zend Network Settings.
4. Select Change Zend Network User ID / Password.
5. Enter the new User ID / Password and click OK.
6. In Windows, a server restart prompt will appear. Click OK.
7. Click Exit until you have exited the Zend Updater.
8. Restart the web server in order for your changes to take effect.

To restart your web server:

Under Windows:

Open your Apache Monitor (by default located in C:\Program Files\Zend\Apache2\bin\ApacheMonitor.exe if you installed Zend Core's bundled Apache) and select Restart.

Under Windows Vista, you must restart the server from your Services Manager.

Under Linux/Unix:

Click the Restart Server button  [Restart Server](#), found in the top-right of the Zend Core Administration GUI.

## Secure Environments

The automatic update option is available for users that have a direct internet connection, or that can access the internet through a proxy server. Subscribed users working in a secure environment can download [Zend Update Packages](http://www.zend.com/en/products/core/updates) containing all pertinent Updates from the Zend Update site (<http://www.zend.com/en/products/core/updates>).

See the [Updating Offline](#) section in the Updating Zend Core' chapter for more on how to install Updates in an offline environment.

## MySQL Database

### Note:

This section only applies if the 'Install phpMyAdmin' option was selected in the installation process.



### To install phpMyAdmin after the installation process on Windows:

1. Rerun the setup process by double-clicking the Zend Core installation executable file  
The Install Shield Wizard will load.
2. In the Welcome screen, choose the Modify option and click Next.
3. Select phpMyAdmin from the feature list and click Next.

phpMyAdmin will be installed and the MySQL Tab will be available the next time Zend Core is run.



### To install phpMyAdmin after the installation process on Linux/Unix/Mac:

1. Uninstall Zend Core.
2. In the Zend Core installation package directory, run the command "Install -g" for a GUI based installation or "Install -y" for a text-based installation and follow the on-screen instructions.
3. In the screen asking which components you would like to install, ensure you select phpMyAdmin.
4. Continue the installation until the installation process has completed.

phpMyAdmin will be installed and the MySQL Tab will be available the next time Zend Core is run.

**Note:**

For more information, see the Zend Core for Oracle Installation Guide.

The MySQL tab includes links that leads users to:

- [The phpMyAdmin user interface](#)
- [MySQL Documentation](#)

## MySQL Database



- [phpMyAdmin Database Management](#)
- [MySQL Documentation](#)

### MySQL Database Tab

#### **PHP MyAdmin**

phpmyadmin.net describes phpMyAdmin as "a tool written in PHP intended to handle the administration of MySQL over the Web. Currently it can create and drop databases, create/drop/alter tables, delete/edit/add fields, execute any SQL statement, manage keys on fields, manage privileges, export data into various formats and is available in 50 languages."

For more information on the phpMyAdmin interface please visit their online homepage at: <http://www.phpmyadmin.net>

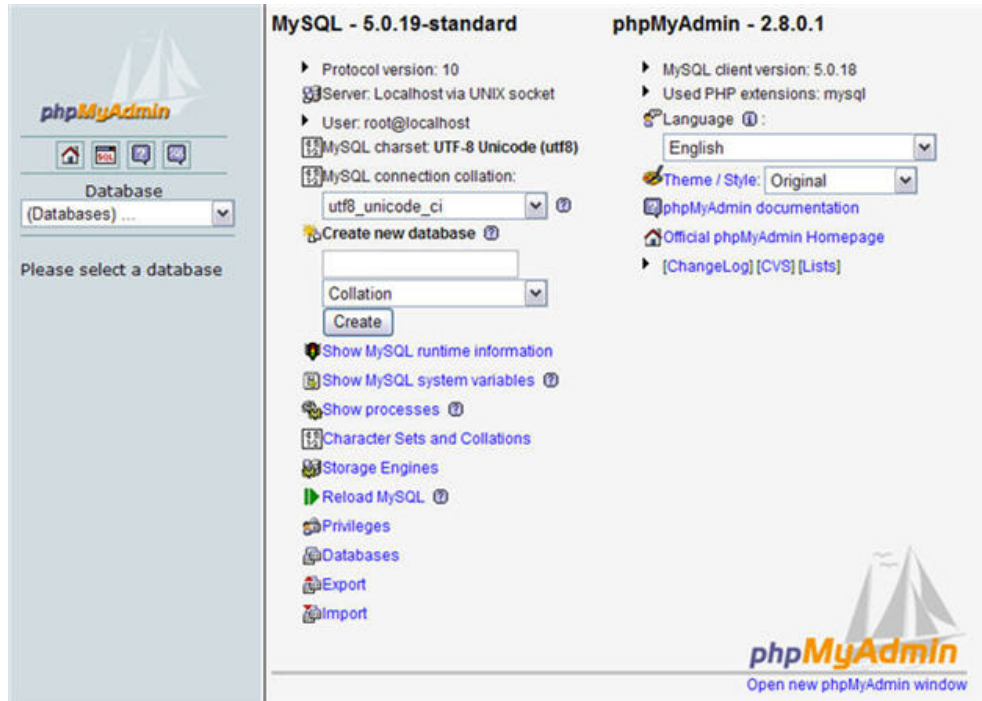


Figure 15 - phpMyAdmin User Interface

### Connecting to the phpMyAdmin User Interface

If your MySQL server is not properly configured, you will get the following error message instead of seeing the phpMyAdmin user interface:

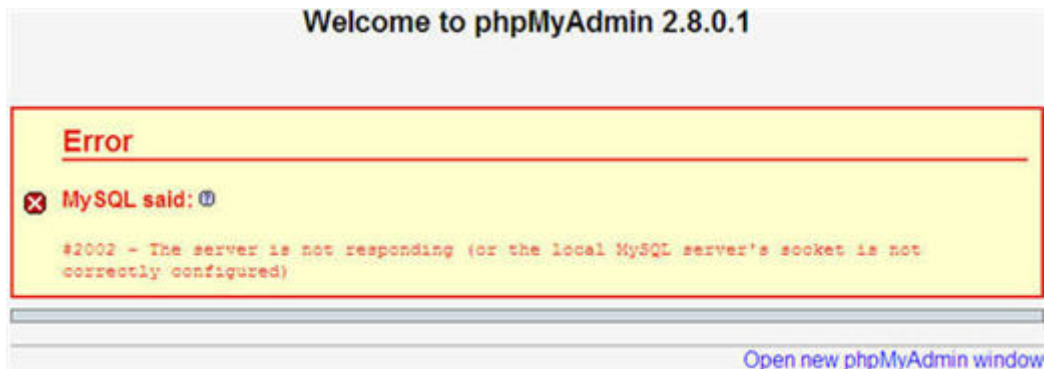


Figure 16 - phpMyAdmin user interface - Failed to connect message

To overcome this problem, configure the phpMyAdmin setup screen, located at: <http://<Server-hostname>/ZendCore/phpMyAdmin/scripts/setup.php>

### MySQL Documentation

This links to the MySQL Reference Manual.

Further MySQL reference manuals can be accessed from

<http://dev.mysql.com/doc/#manual>

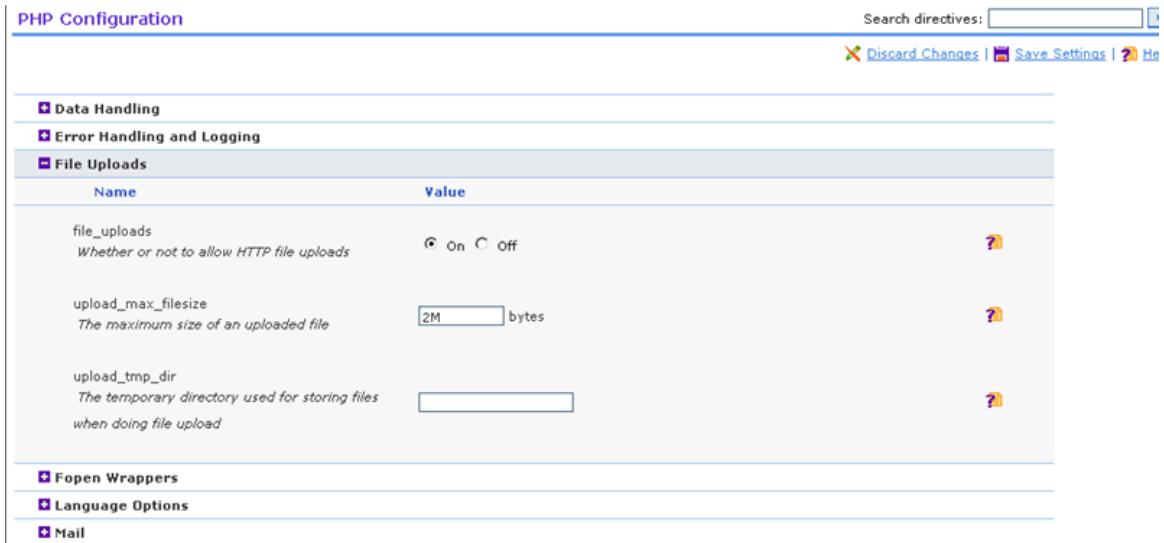
## Configuration

The Zend Core configuration section includes the following tabs:

- [PHP](#) - Easily customize your php.ini values.
- [Extensions](#) - Control the extensions loaded in your environment.
- [Zend Products](#) - Configure the Zend products included with the Zend Core package.
- [Misc. Directives](#) - Configure directives that are not part of Zend Core.
- [Zend Debugger](#) - Enable PHP code debugging and profiling sessions using the integration between the Zend Debugger and Zend Core.

## PHP

The PHP screen is the configuration tool for viewing and customizing the PHP values in the php.ini file.



The screenshot shows the 'PHP Configuration' interface. At the top right, there is a search box labeled 'Search directives:' and three buttons: 'Discard Changes', 'Save Settings', and 'Help'. Below the search bar, there are several expandable sections: 'Data Handling', 'Error Handling and Logging', 'File Uploads', 'Fopen Wrappers', 'Language Options', and 'Mail'. The 'File Uploads' section is expanded, showing a table with two columns: 'Name' and 'Value'. The table contains three rows:


Name	Value
file_uploads <i>Whether or not to allow HTTP file uploads</i>	<input checked="" type="radio"/> On <input type="radio"/> Off
upload_max_filesize <i>The maximum size of an uploaded file</i>	<input type="text" value="2M"/> bytes
upload_tmp_dir <i>The temporary directory used for storing files when doing file upload</i>	<input type="text"/>

Each row also has a help icon (a question mark in a square) to the right of the value field.

*Figure 17 - Configuration Tab PHP Configuration*

Configuration options are separated by type in expandable lists. The [+] and [-] signs indicate if there are more options related to that list item.

Clicking on the Plus Icon [+] will expand the list to expose the different options and, where applicable, input fields are added to change an option's value.



When applicable, click the Help icon  [Help](#) to get more information about the directive.

### Note:

The search directives box at the top of the screen allows you to search all the Configuration tabs for a required directive. The result will be displayed in the relevant Configuration tab. If there is more than one result, relevant results will be presented in a drop-down list to the right of the Search directives box. Selecting a directive from the drop-down list will take you to the relevant tab.



**To configure a PHP directive:**

1. Expand the list or use the search directive box to find the relevant directive.
2. Configure the directive as required.  
You can configure multiple directives before saving.
3. Click the Save Settings  [Save Settings](#) button at the top-right corner of the screen to save all the changes made or use the Discard Changes  [Discard Changes](#) button to undo all the changes made since the last save.
4. To apply the changes restart the server.

To restart your web server:

Under Windows:

Open your Apache Monitor (by default located in C:\Program Files\Zend\Apache2\bin\ApacheMonitor.exe if you installed Zend Core's bundled Apache) and select Restart.

Under Windows Vista, you must restart the server from your Services Manager.

Under Linux/Unix:

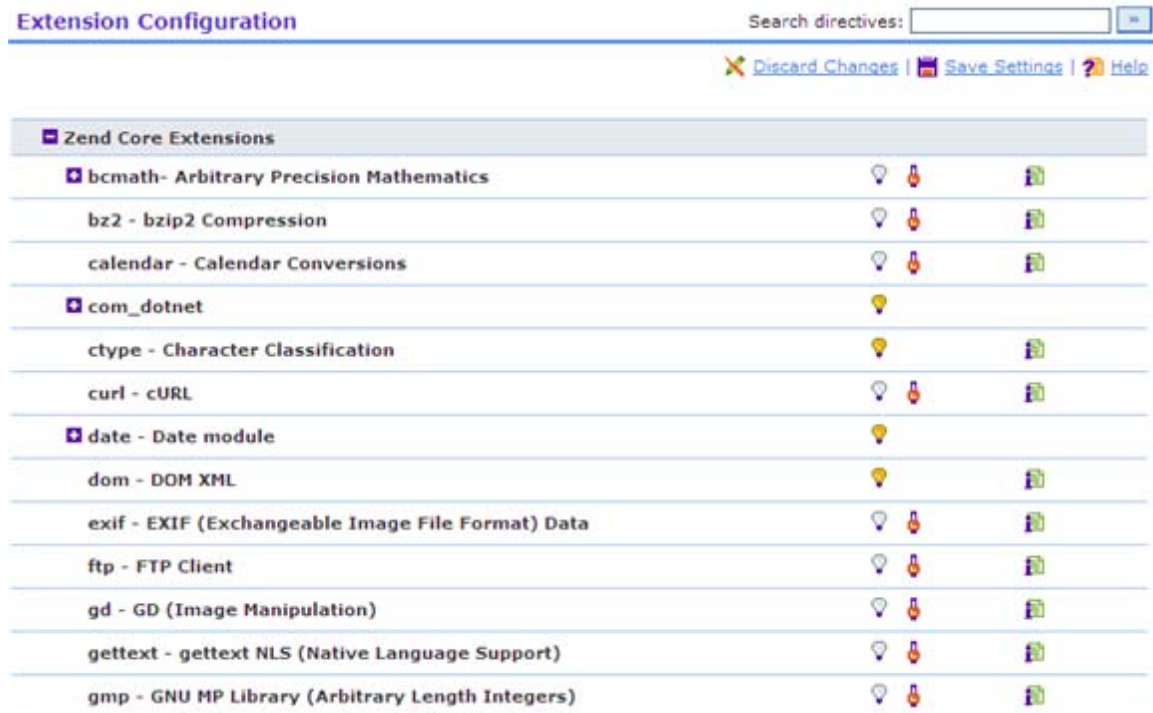
Click the Restart Server button  [Restart Server](#) , found in the top-right of the Zend Core Administration GUI.

Changes will be updated in the PHP Configuration screen and will also be made in the php.ini file.

For a full list of available PHP configuration options, see [Appendix B - PHP Configuration Information](#)

## Extensions

The Zend Core Extensions screen provides a convenient way to view and configure extensions.



*Figure 18 - Configuration Tab Extension Configuration*

System Administrators may prefer to control the extensions loaded in their environment to make sure that only necessary extensions are loaded.


A PHP extension is a set of instructions that adds functionality to PHP. Extensions can also be employed to recycle frequently used code. You can place a set of functions into one extension and instruct your projects to utilize the extension. Another use for PHP extensions is to improve efficiency and/or speed. Some processor intensive functions can be better coded as an extension rather than straight PHP code.


### Note:

The purpose of the load/unload extension option is to configure php.ini according to the extensions you would like loaded.

The Extensions screen is a configurable list of extensions built in with the Zend Core installation or extensions added to php.ini by the user. It allows you to view the status of all your extensions and enables you to quickly and easily load and unload extensions.

In addition, you can also configure directives associated with certain extensions. Extensions with configurable directives will have a Plus Icon [+] next to them. Click the Plus Icon [+] to expose a list of the different configurable directives associated with a particular extension.

When applicable, click the Reference Icon  to the right of an extension to display information about the extension in the PHP manual.




When applicable, click the Help icon  [Help](#) to view information about a particular directive.

#### Note:

The search directives box at the top of the screen allows you to search all the Configuration tabs for a required directive. The result will be displayed in the relevant Configuration tab. If there is more than one result, relevant results will be presented in a drop-down list to the right of the Search directives box. Selecting a directive from the drop-down list will take you to the relevant tab.

#### Extension Status

Extensions can have one of three different statuses:

-  Unloaded - The extension is not running on the machine.
-  Loaded - The extension is running on the machine.
-  Built In - Built-in extensions are extensions that have dependencies, or were compiled with PHP. Built in extensions cannot be removed and so do not have an enable/disable icon next to them.





Hovering over the lightbulb icon will display a tooltip indicating whether the status is unloaded, loaded or built in.

**Note:**

Extensions marked with an '!' indicate that an inconsistency occurred between the server state and the php.ini state. Possible causes are that the php.ini was changed earlier and the server was not restarted, or that the extension failed to load. To test this, try to restart the server.

Extensions and directives marked '\*' have different values (or loaded/unloaded states in case of Extensions) in the php.ini file and in the running server instance. To synchronize their state/value, restart the Web Server.

**To change an extension's status:**

1. Click the Enable  or Disable  Extension Switch next to the required extension.  
Built-in extensions cannot be disabled and so will not have an Extension Switch displayed.  
A notice will appear to restart the server.
2. You can enable/disable several extensions at once.
3. Click the Save Settings button  [Save Settings](#) at the top right-corner of the screen to save the changes or click the Discard Changes  [Discard Changes](#) button to undo all changes made since the last save.
4. To apply the changes restart the server.

To restart your web server:

Under Windows:

Open your Apache Monitor (by default located in C:\Program Files\Zend\Apache2\bin\ApacheMonitor.exe if you installed Zend Core's bundled Apache) and select Restart.

Under Windows Vista, you must restart the server from your Services Manager.



Under Linux/Unix:

Click the Restart Server button  [Restart Server](#), found in the top-right of the Zend Core Administration GUI.

Changes will be updated in the Extension Configuration screen and will also be made in the php.ini file.



**To configure a directive associated with an extension:**

1. Expand the list or use the search directive box to find the relevant directive.
2. Configure the directive as required.  
You can configure multiple directives before saving.
3. Click the Save Settings  [Save Settings](#) button at the top right corner of the screen to save all the changes made or use the Discard Changes  [Discard Changes](#) button to undo all the changes made since the last save.
4. To apply the changes restart the server.

To restart your web server:

Under Windows:

Open your Apache Monitor (by default located in C:\Program Files\Zend\Apache2\bin\ApacheMonitor.exe if you installed Zend Core's bundled Apache) and select Restart.

Under Windows Vista, you must restart the server from your Services Manager.

Under Linux/Unix:

Click the Restart Server button  [Restart Server](#), found in the top-right of the Zend Core Administration GUI.

Changes will be updated in the Extension Configuration screen and will also be made in the php.ini file.

**Note:**

Directives of both loaded and unloaded extensions can be configured through the Extension configuration screen.

**For a full list of extensions and their descriptions, see [Appendix C - Zend Core Extensions](#).**

**Note:**

Some extensions have dependencies on certain libraries.

For a full list of libraries installed with Zend Core, see [Appendix D - Libraries](#).

## Adding Extensions to Zend Core

Zend Core users can benefit from extension management capabilities for third party extensions as well as for Zend extensions. This enables users to load and unload all extensions directly from the Zend Core Configuration tab.

### Disclaimer:

Zend Technologies does not provide support for third party products, including extensions. Therefore, if an issue for support arises, please remove all third party extensions by commenting out the reference to them in your php.ini before contacting the Zend Support team.

There are two types of extensions: PHP extensions and Zend extensions. The extension provider should supply information regarding the extension type (Zend or PHP). Make sure to also check the provider's documentation for possible compatibility issues, PHP version compatibility and any other additional configurations that may be required.

### Note:

Zend Product extensions are managed by the Extension Manager by using the directive

```
"zend_extension_manager.<my_extension_name>=<full_path_to_extension_location>".
```

Ensure that <full\_path\_to\_extension\_location> is replaced with the path to your extension's location and <my\_extension\_name> is replaced with your extension's name.

### Operating System Compatibility:

Windows users should only use binaries compiled in non thread-safe (NTS).



#### To Add Zend Extensions:

1. Download the extension.
2. Place the extension in your extensions directory.

To locate the extensions directory, open your php.ini and check the value for the directive `extension_dir=`.

By default, your extensions directory will be located in:

Windows:

C:\Program Files\Zend\Core\lib\phpext

Unix/Linux:

/usr/local/Zend/Core/lib/php/20060613

3. Add the following line to your php.ini:

Windows: zend\_extension\_manager.<my\_extension\_name> =  
<full\_path\_to\_extension\_location>\<my\_extension\_name>

Unix/Linux:

zend\_extension\_manager.<my\_extension\_name> =  
<full\_path\_to\_extension\_location>/<my\_extension\_name>

4. Ensure that you have replaced <full\_path\_to\_extension\_location> with the path to your extension's location and <my\_extension\_name> with your extension's name.
5. Restart your web server.

To restart your web server:

Under Windows:

Open your Apache Monitor (by default located in C:\Program Files\Zend\Apache2\bin\ApacheMonitor.exe if you installed Zend Core's bundled Apache) and select Restart.

Under Windows Vista, you must restart the server from your Services Manager.

Under Linux/Unix:

Click the Restart Server button  [Restart Server](#), found in the top-right of the Zend Core Administration GUI.

6. Ensure that the extension is properly loaded by checking the output of PHPInfo by going to the Control Center | [PHPInfo tab](#) in Zend Core.


**Note:**

If you try to load a PHP extension as a Zend extension, in Linux you will receive the following error message in your server's error log: "<extension\_name> doesn't appear to be a valid Zend extension."

In this case, remove it and add it as a PHP extension following the instructions under "[To Add PHP Extensions](#)", below.



### To Add PHP Extensions

1. Download the third party extension. Many third party extensions can be found through at <http://pecl.php.net>.  
Extensions are obtained directly from external web repositories.
2. Place the PHP extension in your extensions directory.  
To locate the extensions directory, open your php.ini and check the value for the directive `extension_dir=`.  
By default, your extensions directory will be located in:  
Windows:  
C:\Program Files\Zend\Core\lib\phpext  
Unix/Linux:  
/usr/local/Zend/Core/lib/php/20060613
3. Add the following line to your php.ini:  
Windows: `extension=php_<my_extension_name>.dll`  
Unix/Linux: `extension=<my_extension_name>.so`  
Ensure that you replace `<my_extension_name>` with your extension's name.
4. Restart your web server.  
To restart your web server:  
Under Windows:  
Open your Apache Monitor (by default located in C:\Program Files\Zend\Apache2\bin\ApacheMonitor.exe if you installed Zend Core's bundled Apache) and select Restart.  
Under Windows Vista, you must restart the server from your Services Manager.  
Under Linux/Unix:  
Click the Restart Server button  [Restart Server](#), found in the top-right of the Zend Core Administration GUI.
5. Ensure that the extension is properly loaded by checking the output of PHPInfo by going to the Control Center | [PHPinfo tab](#) in Zend Core.

The extensions will now appear in your Zend Core Web Administration GUI under the Extensions tab and you will be able to use the Web GUI to load and unload the extension.

## Compiling extensions

Under Unix/Linux operating systems you can also create and compile your own extensions using the `phpize` command.

### Disclaimer:

External extensions are not supported by Zend. If you encounter a problem, remove any additional extensions before contacting Zend Support.

Building PHP extensions from source requires basic UNIX skills as well as several build tools, among others:

- An ANSI C compiler
- flex: Version 2.5.4
- bison: Version 1.28 (recommended), 1.35, or 1.75
- Any specific components or libraries required by the extension being built (such as `gd`, `pdf libs`, etc.)



### To compile extensions from source:

1. Download and extract the extension's source.
2. Change into the extension source directory, (by default located in `/usr/local/Zend/Core/lib/phpext`) and run the following commands:

```
cd <your_extension_directory>  
/usr/local/Zend/Core/bin/phpize
```

Ensure that you replace `<your_extension_directory>` with your extension directory's name.

3. Run the `./configure` command to prepare the source for compilation. You will need to include the "php-config" and "enable-shared" flags as follows:

```
./configure --with-php-config=/usr/local/Zend/Core/bin/php-  
config\  
--enable-shared
```

### Note:

Some extensions will need additional configuration flags. It is therefore advised to run `./configure --help` and review the possible flags before compiling.

4. Compile and install the extension binaries by running the following commands:

```
make  
make install
```

Make install should install the new .so extension binary in Zend Core's extension directory.

5. Add the following line to your php.ini to load your new extension:

```
extension=<my_extension_name>.so
```

Replace <my\_extension\_name> with your extension's binary name.

6. Restart your web server.
7. Ensure that the extension is properly loaded by checking the output of PHPInfo. This can be viewed in the Control Center | [PHPinfo tab](#) in Zend Core.

The extension will now appear in your Zend Core Web Administration GUI under the Extensions tab and you will be able to use Zend Core Web GUI to load and unload the extension.

## Zend Products

The Zend Products tab allows you to view and configure the Zend products included with the Zend Core package.

Through this tab you can view the status (loaded/unloaded) of your Zend Core products, and configure certain directives associated with them.

Zend products are listed by type in expandable lists. Clicking on the Plus Icon [+], where applicable, will expand the list to expose the configurable directives associated with a Zend Product. Relevant input fields are added to change a directive's value.

### Note:

The search directives box at the top of the screen allows you to search all the Configuration tabs for a required directive. The result will be displayed in the relevant Configuration tab. If there is more than one result, relevant results will be presented in a drop-down list to the right of the Search directives box. Selecting a directive from the drop-down list will take you to the relevant tab.

Through this screen, users can configure the following Zend products:

- [Zend Core](#)
- [Zend Debugger](#)
- [Zend Extension Manager](#)
- [Zend Optimizer](#)
- [Additional Zend Product Directives](#)

### Note:

More extensions may be listed if additional Zend Products are installed on the machine.

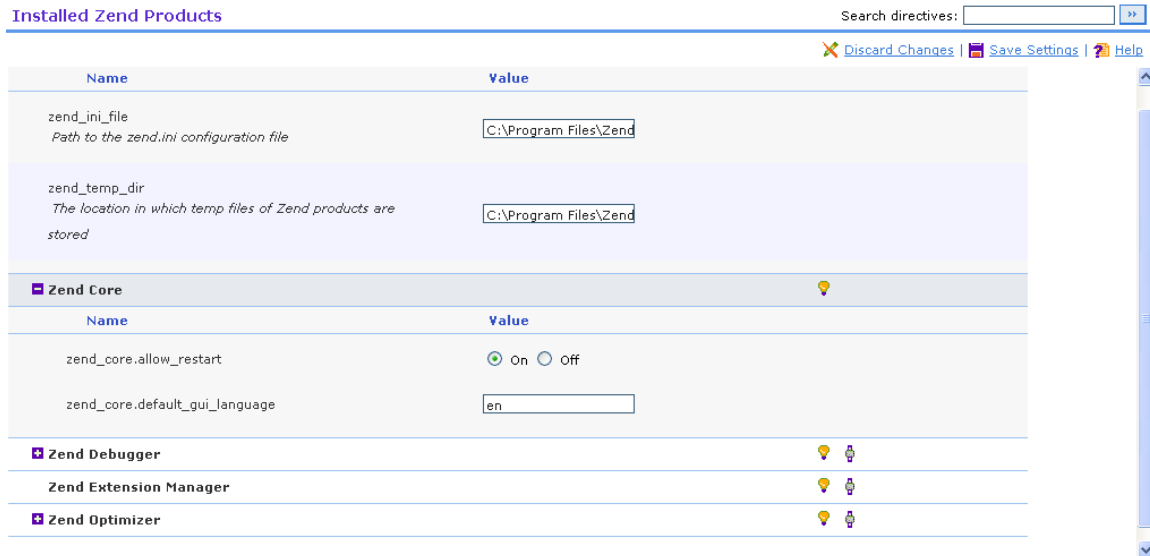


Figure 19 - Configuration Tab - Installed Zend Products List

## Zend Core

zend_core.allow_restart	Enables restarting the server from the Zend Core restart button. This option is disabled under Windows.
zend_core.default_gui_language	Determines the user interface language (supported languages will vary according to product version).

## Zend Debugger

The Zend Debugger is the client extension for debugging PHP with Zend Studio IDE. This extension provides the initial framework needed for initiating debug sessions. Using the Zend Debugger with Zend Studio IDE provides advanced debugging features, including Conditional Breakpoints, Stack Trace View, Advanced Watches, Variables and Output Buffer.

The Studio Client does not have to be installed on the Web Server and can be used for debugging with a remote Client over SSL. Remote connections are secure, ensuring maximum protection for remote debugging with offsite locations or across the Internet.

For more on debugging using Zend Studio IDE, see the Zend Studio User Guide.

For more information on Zend Studio and to download the product or the User Guide, go to: <http://www.zend.com/en/products/studio>

**Note:**

The settings in the Zend Debugger tab are only applicable when the Debugger extension is loaded.

See the '[Zend Debugger](#)' topic for more information.

The following zend.ini directives define a port range for Tunneling. You can modify these settings to ensure persistent connections while using Tunneling over firewalls for debugging event information in Zend Platform or debugging scripts edited in Zend Studio IDE:

zend_debugger.tunnel_max_port	Maximal possible value of Debugger tunneling port. Default value: 65535.
zend_debugger.tunnel_min_port	Minimal possible value of Debugger tunneling port. Default value: 1024.

While Tunneling, the Debugger will try to locate a free port in the range defined in the max and min Zend Debugger Tunnel Port directives above. Another consideration when defining a port range is to ensure that the amount of ports opened correspond to the amount of possible debugger connections that may occur, i.e. the range should reflect the amount of Zend Studio IDEs that will be using the Debugger Port.

**Note:**

The Debugger uses the default values either when the directives are not present in the Zend ini, or if one of them is invalid. If the directives are not present, the Debugger will revert to random port allocation and not from a predefined range of ports.

In parallel, the System Administrator must ensure that proper firewall policies are set to allow communication via the selected ports.

The tunnel server, and not the debugger, uses these tunnel settings. The debugger will still use random ports for debugging.

**Note:**

The following error message might appear in your web server's error log:

"Could not find a free TCP port for tunneling. Please re-adjust the 'zend\_debugger.tunnel\_min\_port' and 'zend\_debugger.tunnel\_max\_port' directives in the php.ini file."

This means the Debugger could not find a free port to establish a communication tunnel. Make sure you have defined an adequate port range in the directives. If the problem persists, consider checking the firewall policies.

For more on configuring debugging settings using Zend Core, see information under the [Zend Debugger tab](#) topic.

**Zend Extension Manager**

The Zend Extension Manager is in charge of loading the Zend modules according to their appropriate versions.

**Zend Optimizer**

Zend Optimizer is a free application that runs the PHP scripts encoded by Zend Guard for enhancing PHP application running speed.

In addition, Zend Optimizer goes over the intermediate code generated by the standard Zend run-time compiler and optimizes it for faster execution.

Read more about the Zend Optimizer at <http://www.zend.com/store/products/zend-optimizer.php>

**Zend Optimizer Directives:**

zend_optimizer.disable_licensing	You can disable the Zend Optimizer license request if you do not need to use any licensing features.
zend_optimizer.enable_loader	Adding the zend_optimizer.enable_loader = 0 directive will slightly improve the Optimizer's performance as it disables the transparent auto-loading mechanism that is built into the Zend Optimizer. Only disable this directive if you do not plan to use the Zend Optimizer to load encoded files.
zend_optimizer.licence_path	A license file is required to load encoded PHP scripts that were encoded with a require-license option. If you turn off this option, encoded scripts on your server that require a license may not load.
zend_optimizer.optimization_level	Enable optimizations bitmask.

**Additional Zend Product Directives**

zend_ini_file	Path to the zend.ini configuration file
zend_temp_dir	The location in which temp files of Zend products are stored

**Zend Product Status**

Zend Products can have one of three statuses according to different requirements and the environment running PHP.

**The statuses are as follows:**

- Unloaded - The product is not running on the machine.
- Loaded - The product is running on the machine.
- Built In - Built-in products are products that have dependencies, or were compiled with PHP. Built in extensions cannot be removed and so do not have an enable/disable icon next to them.

**Note:**

Zend Products cannot be disabled through the Zend Products tab. To disable Zend Products, go to your php.ini file and comment out the required extension.

**To configure a directive associated with a Zend Product:**

1. Expand the list or use the search directive box to find the relevant directive.
2. Configure the directive as required.  
You can configure multiple directives before saving.
3. Click the Save Settings button at the top right corner of the screen to save all the changes made or use the Discard Changes button to undo all the changes made since the last save.
4. To apply the changes restart the server.

To restart your web server:

Under Windows:

Open your Apache Monitor (by default located in C:\Program Files\Zend\Apache2\bin\ApacheMonitor.exe if you installed Zend Core's bundled Apache) and select Restart.

Under Windows Vista, you must restart the server from your Services Manager.

Under Linux/Unix:

Click the Restart Server button, found in the top-right of the Zend Core Administration GUI.

Changes will be updated in the Zend Products screen and will also be made in the php.ini file.

Additional information about Zend Products can be found at

<http://www.zend.com/en/products>, or by going to the [Additional Zend Products and Services](#) chapter.

## Misc. Directives

Directives that are not part of Zend Core are listed in the Misc. Directives screen. This screen allows you to easily view and configure additional commonly used directives.

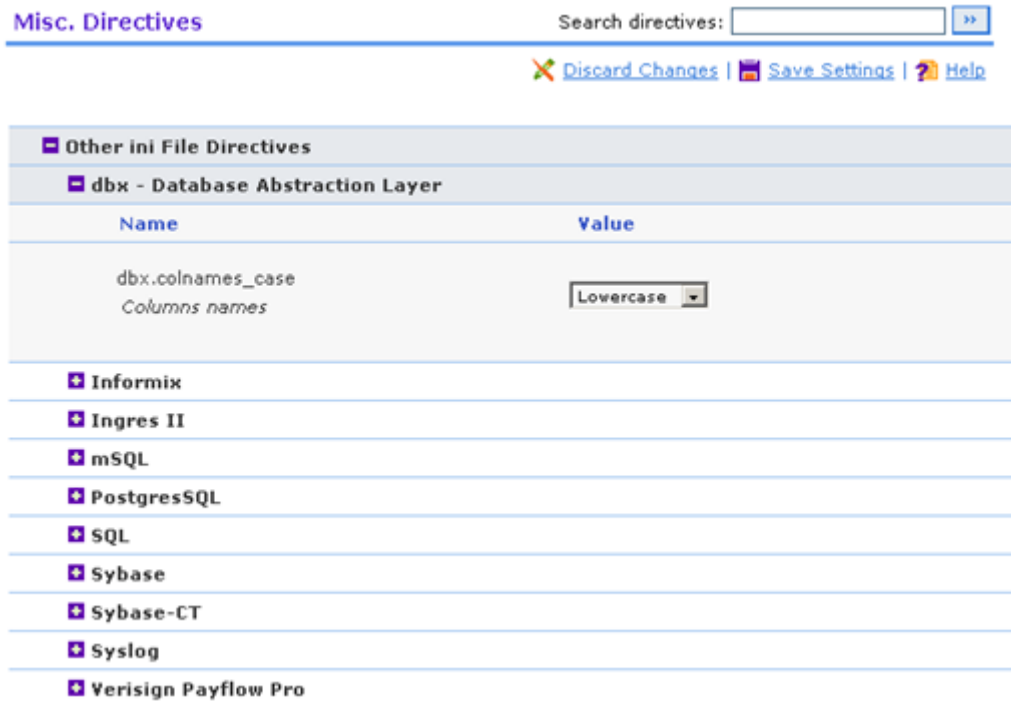


Figure 20 - Configuration Tab - Misc.Directives

The available directives are separated by type in expandable lists. Clicking on the Plus Icon [+] will expand the list to expose the different options and, where applicable, input fields are added to change a directive's value.

When applicable, click the Help icon to get more information about the directive.

### Note:

The search directives box at the top of the screen allows you to search all the Configuration tabs for a required directive. The result will be displayed in the relevant Configuration tab. If there is more than one result, relevant results will be presented in a drop-down list to the right of the Search directives box. Selecting a directive from the drop-down list will take you to the relevant tab.

For a full list of Misc. Directives configuration information, see [Appendix E - Misc. Directives Configuration Information](#).

**To configure Misc. directives:**

1. Expand the list or use the search directive box to find the relevant directive.
2. Configure the directive as required.  
You can configure multiple directives before saving.
3. Click the Save Settings button at the top right corner of the screen to save all the changes made or use the Discard Changes button to undo all the changes made since the last save.
4. To apply the changes restart the server.

To restart your web server:

Under Windows:

Open your Apache Monitor (by default located in C:\Program Files\Zend\Apache2\bin\ApacheMonitor.exe if you installed Zend Core's bundled Apache) and select Restart.

Under Windows Vista, you must restart the server from your Services Manager.

Under Linux/Unix:

Click the Restart Server button, found in the top-right of the Zend Core Administration GUI.

Changes will be updated in the Misc. Directives screen and will also be made in the php.ini file.

## Zend Debugger

Zend Core comes complete with the option to enable remote PHP debugging and profiling of Web applications through using the Zend Debugger (Zend Studio Server) component.

This component enables developers using the Zend IDE to connect to a remote server in order to analyze (debug and profile) and fix code.

The Zend Debugger tab allows you to configure which hosts should be allowed to initiate debugging and profiling sessions.

### Note:

For the Zend Studio IDE to be able to initiate debugging and profiling sessions, the IP address of the machine where the Zend Studio IDE is installed must be in the Allowed Hosts list.

**Zend Studio Server Settings**

[Discard Changes](#) | [Save Settings](#) | [Restart Server](#) | [Help](#)

**Allowed Hosts**

Address	Net mask		
127 . 0 . 0 . 1	32 (127.0.0.1)	32	

The following Hosts are allowed to initiate Debugging and Profiling sessions.

**Denied Hosts**

Address	Net mask		
0 . 0 . 0 . 0	32 (0.0.0.0)	32	

The following Hosts will NOT be allowed to initiate Debugging and Profiling sessions, even if they are in the Allowed Hosts list.

**Allowed Hosts for Tunneling**

Address	Net mask		
127 . 0 . 0 . 1	32 (127.0.0.1)	32	

The following Hosts will be allowed to use Zend Studio Tunneling, for Debugging across a firewall.

**Expose Remotely**

Never

This setting determines whether the Zend Studio Debug Server will expose itself to remote clients. This is required if you want the Zend Studio Browser Toolbar to automatically detect pages that can be Debugged.

**Save**

Figure 21 - Configuration Tab - Zend Debugger

## Settings

The Zend Debugger tab displays the settings for the Debugger that resides on the server.

There are four categories of settings:

1. **Allowed Hosts** - Lists the hosts allowed to initiate Debugging and Profiling sessions.
2. **Denied Hosts** - Lists the hosts that are not allowed to initiate Debugging and Profiling sessions, even if they are on the Allowed Hosts list.
3. **Allowed Hosts for Tunneling** - Lists the hosts allowed to use the Zend Studio Tunnel for debugging across a firewall.
4. **Expose Remotely** - This setting determines whether the Debug Server will expose itself to remote clients. This is required if you want the Zend Studio Browser Toolbar to automatically detect pages that can be debugged.

### To add/remove an Allowed, Denied or Tunneling Host:

1. Click "Add".  
A new unconfigured line will be added to the Host list.
2. Enter the required address and Net Mask.
3. To remove a Host, click the "Remove Host button" next to the required host.
4. Press Save.
5. To apply the changes restart the server.

To restart your web server:

#### Under Windows:

Open your Apache Monitor (by default located in C:\Program Files\Zend\Apache2\bin\ApacheMonitor.exe if you installed Zend Core's bundled Apache) and select Restart.

Under Windows Vista, you must restart the server from your Services Manager.

#### Under Linux/Unix:

Click the Restart Server button, found in the top-right of the Zend Core Administration GUI.

**To configure your "Expose Remotely" settings:**

1. Choose the required option from the drop-down list:
  - Always - Will expose all hosts
  - Selective - Only exposes the hosts in the allowed host list
  - Never - Will not expose any host
2. Press Save.

To apply the changes restart the server.

To restart your web server:

Under Windows:

Open your Apache Monitor (by default located in C:\Program Files\Zend\Apache2\bin\ApacheMonitor.exe if you installed Zend Core's bundled Apache) and select Restart.

Under Windows Vista, you must restart the server from your Services Manager.

Under Linux/Unix:

Click the Restart Server button  [Restart Server](#), found in the top-right of the Zend Core Administration GUI.

**Note:**

The settings in the [Zend Debugger Tab](#) are only applicable when the Debugger extension is loaded. See the [Zend Products tab](#) for more on the Debugger extension.

## Documentation

The Documentation tab is the main source for reference information.

Using the Search sub-menu considerably reduces the time it takes to obtain information as all necessary information is locally available, with no need to search the internet.

The tabs included under the Documentation tab are:

- [PHP](#) - The PHP Manual
- [Search](#) - Allows you to search the PHP Manual

## PHP

The PHP screen of the Documentation Tab allows easy access to the PHP Manual for instant access to the most comprehensive PHP reference information.

The PHP Manual consists primarily of function references, but also contains language references, explanations of some of PHP's major features, and other supplemental information.

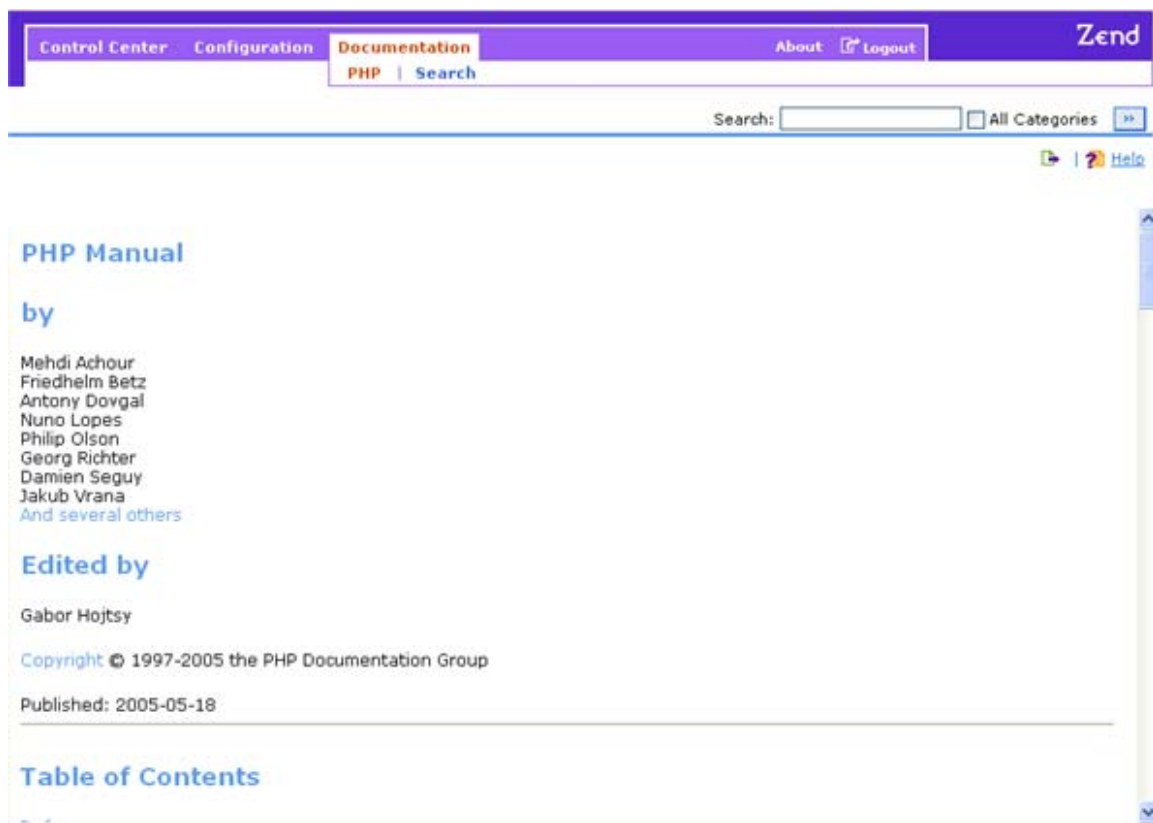






Figure 22 - PHP Manual Tab

Use the Table of Contents to browse to the required section of the PHP Manual. Use the browse buttons at the top of the page to go to the next  / previous  page, to go up a level  or to return to the PHP Manual Homepage .

The Search box **Search:**  at the top of the page allows you to search the PHP Manual for specific information.

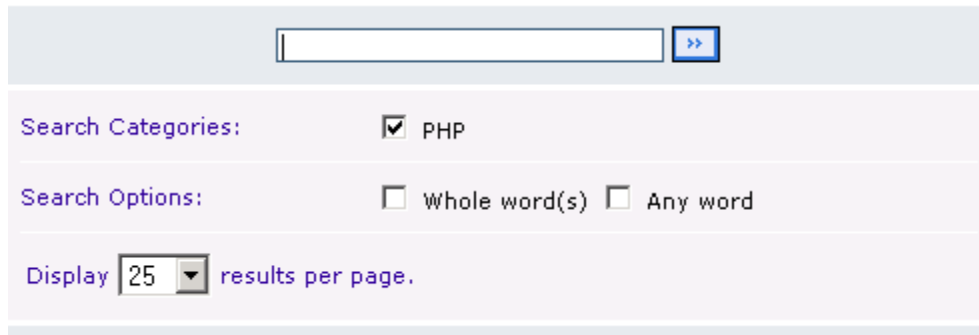
For more advanced search options, see the [Search tab](#).

**Note:**

For the most up to date php information, refer to the online PHP manual found at <http://php.net>.

## Search

The Search Documentation tab allows you to search the PHP Manual to get the most relevant information.



The screenshot shows the search interface with the following elements:

- A search input field with a blue arrow button to its right.
- Search Categories:** A checked checkbox next to the text "PHP".
- Search Options:** Two unchecked checkboxes labeled "Whole word(s)" and "Any word".
- Display:** A dropdown menu showing "25" with a downward arrow, followed by the text "results per page."

*Figure 23 - Search Tab*

Enter a string and click the arrow icon  to search for it in the PHP Manual.

**Note:**


Ensure that the PHP checkbox is marked in the Search Categories category.

In addition to the PHP Manual Search functionality, the PHP, Extensions, Zend Products and Misc. Directives pages under the Configuration tab also have a 'Search Directives' box which allows you to search all the Configuration tabs for a required directive. The result will be displayed in the relevant Configuration tab. If there is more than one result, relevant results will be presented in a drop-down list to the right of the Search directives box. Selecting a directive from the drop-down list will take you to the relevant tab.

## Technical Support

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### Online Help

Online Help is available from every page within the Zend Core Web Administration GUI by clicking the Help icon  [Help](#) located at the top-right corner of the screen. Comments and suggestions are always welcome. To make suggestions on the Help, contact Zend's documentation department directly by sending an e-mail to [documentation@zend.com](mailto:documentation@zend.com). In addition, at the bottom of each Online Help page is a link for sending e-mails directly to the Zend Documentation Team.

### Support Services

Zend's Support Center (<http://www.zend.com/en/support-center>) provides professional support and resources for Zend's solutions:

- Helpdesk - Submit a Helpdesk Ticket for assistance from the Zend Support Team, and get in touch with expert Zend engineers, ready to provide professional support with the highest priority and personal attention.
- Resources - Access a wealth of support information including Knowledgebase Articles and Frequently Asked Questions.

### Consulting Services

Zend offers an array of Consulting Service Solutions to support the development and deployment of your business-critical PHP applications.

To find out more, please visit <http://www.zend.com/en/services/consulting>.

### Education Services

Zend offers a variety of [PHP Education Solutions](#) including [Certification](#) and [Training Courses](#), delivered online and through approved [Training Partners](#).

## **Additional Zend Products and Services**

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Zend Technologies provide a complete lifecycle solution to develop, deploy and manage your business-critical PHP applications. Zend delivers the premier Web application platform, services and solutions for PHP applications running on Linux, UNIX, Windows and Macintosh systems.

### **Rapid Development & Deployment**

Zend delivers an award-winning solution for organizations developing and deploying business-critical PHP applications. Starting with Zend Studio IDE, developers have the only PHP IDE (Integrated Development Environment) that encompasses all the development components necessary for the full PHP application lifecycle. Zend Platform then provides intelligence for the run-time aspects of the PHP application under development. A powerful integration between Zend Studio IDE and Zend Platform allows development and test teams to thoroughly check that code is free of run-time errors and potential performance bottlenecks before deployment.

In deployment, copyright protection and performance are key. Zend Guard secures your application from infringement by encoding and obfuscating the PHP code so you can maintain your intellectual property investment. Zend Platform provides maximum performance by accelerating your running PHP applications with four modules: Content Caching, File Compression, Code Acceleration and Download Serving. Requiring no code intervention, the modules typically increase execution speed by x3 &ndash; x100.

Zend's development and deployment solutions bring together your Development, QA, Production and IT teams. These will let you gain complete insight into your PHP applications with interactive alerting and XML-based messaging for integration with other tracking and support tools.

### **Reduced Testing Cycles**

Zend provides the industry's only integrated IDE and run-time testing solution that reduces testing cycles by quickly identifying problems early in the lifecycle. Zend Studio and Zend Platform provide an integrated solution that can be deployed in development and testing environments to quickly identify run-time errors/anomalies and performance problems in PHP applications and database queries. Detailed reporting pinpoints the cause and provides the environmental data that contributed to each problem, eliminating the need to reproduce each error. Detailed reports can

be shared between QA and development to speed up the fixing process. In addition, alerts can be generated in both email and XML formats for integration with bug tracking systems.

Zend's testing cycle solution speeds up development and QA through early identification of run-time problems and with a level of detailed reporting required to fix bugs quickly and efficiently.

### **Central Monitoring and Management**

Zend Platform provides the only PHP monitoring and management solution that actively reports run-time errors/anomalies on a deployed application. At a glance, Zend Platform provides an instant health status of your PHP servers and applications along with detailed reporting (with filtering) on a wide variety of application issues. Zend Platform can be configured to proactively alert you about the most critical of problems through email or XML-based messaging. Zend Platform also provides centralized management of your PHP configuration, ensuring that all PHP settings are configured correctly and consistently across groups of servers.

### **Improved Mean-Time-Between-Unscheduled-Interruption (MTBUI)**

Zend's integrated solutions improve your application's MTBUI in several ways. Zend Platform actively monitors each production server, proactively alerting you to problems immediately. Detailed reporting pinpoints each problem with comprehensive information so that IT and development teams can immediately get to work on fixing the problem rather than trying to recreate it. Integration with Zend Studio provides instant access to source code, debugging and profiling information so that your teams can focus on eliminating the problem rather than spending time trying to gather information about the cause of the problem.

### **Proven Scalability**

Zend's award-winning performance solution provides peace-of-mind about the scalability of your PHP application. Zend Platform's performance modules automatically improve the performance of each PHP application, enhancing the overall user experience and allowing you to serve more users without investing in new hardware.

### **Seamless Interoperability**

Zend's solutions provide interoperability with other existing legacy or backend applications. Zend Platform provides seamless PHP/Java interoperability without the

overhead of continual JVM (Java Virtual Machine) instantiation. The PHP/Java Bridge provides direct calls to Java code using natural coding syntax. The run-time engine instantiates a persistent JVM once, providing minimal overhead and the performance necessary for composite PHP/Java applications.

### **Active Community/Support**

Zend actively participates in the PHP community and provides [Training](#), [Consulting](#) and [Support](#). Zend's PHP Training Courses range from beginner and intermediate to advanced levels. The courses are live and take place within an online class environment, where students communicate and interact with the instructors in real-time. All of our instructors are Zend Certified PHP Experts, experienced in providing a professional and in-depth training experience. Zend also offers an array of Consulting Services to support the successful development and deployment of your business-critical PHP application projects.

## Appendix A - Support Tool Information

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The following information will be collected by the Zend Support Tool:

### Windows

- conf.ini
- FILES
- fs.txt
- java.version
- ls-IR.out - Full listing of the installation prefix
- netstat.out
- php.ini - Contents of PHP configuration file
- phpinfo-cli.txt
- phpinfo-server.txt
- tasklist.out
- ver.out
- zend.ini

### Linux/Unix

- Apache\_1.settings
- Apache\_error\_1.log
- Apache\_httpd\_1.conf
- apachectl
- conf.ini
- cpuinfo - CPU information. Output from 'cat /proc/cpuinfo'
- df.out - File system info. Output from command 'df'
- FILES
- glibc.version - GLIBC version
- ipcs-a.out - IPC facilities information. Output from command '/usr/bin/ipcs -a'
- java.version

- logs -Zend logs directory (/usr/local/Zend/Core/logs)
- ls-IR.out - Full listing of the installation prefix
- lsof.out - List of all open files. Output from command: '/usr/bin/lsof'
- ls-zR.out
- netstat.out
- nm\_httpd.out
- nm\_php.out
- objdump\_httpd.out
- objdump\_php.out
- php.ini - Contents of PHP configuration file
- phpinfo-cli.txt
- ps.out - Process table. Output from command '/bin/ps auxww'
- redhat-release
- sysctl.out - Kernel parameters. Output from command 'sysctl -a'
- tmpdir.perms
- uname.out - System information. Output from command 'uname -a'
- zend.ini

## Appendix B - PHP Configuration Information

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The following PHP Configuration options are included in the Core version 2.5 installation packages:

### Categories:

[Data Handling](#)

[Mail](#)

[Error Handling and Logging](#)

[Misc](#)

[File Uploads](#)

[Paths and Directories](#)

[Fopen Wrappers](#)

[Resource Limits](#)

[Language Options](#)

[- Colors for Syntax Highlighting mode](#)

[- Safe Mode](#)

<b>Data Handling</b>	always_populate_raw_post_data	Always populate the \$HTTP_RAW_POST_DATA variable.
	arg_separator.input	List of separator(s) used by php to parse input URLs into variables. Every character in this directive is considered as a separator.
	arg_separator.output	The separator used in php generated URLs to separate arguments.
	auto_append_file	Optionally defines the name of a file that is automatically parsed after the main php script file. <b>Note:</b> The file is included as if it were called by the php function include(), therefore the directive include_path is used and must be appropriately set. <b>Note:</b> The auto-append is not implemented if the php script file is terminated by the php function exit().
	auto_globals_jit	When enabled, the SERVER and ENV variables are created when they're first used (Just In Time) instead of when the script starts. If these variables are not used within a script, having this directive on will result in a performance gain.

		The php directives register_globals, register_long_arrays, and register_argc_argv must be disabled for this directive to be effective.
	auto_prepend_file	Optionally defines the name of a file that is automatically parsed before the main php script file. <b>Note:</b> The file is included as if it were called by the php function include(), therefore the directive include_path is used and must be appropriately set.
	default_charset	php outputs a default character set in the Content-type: header. To disable this output, set this directive to be an empty string ("").
	default_mimetype	MIME = Multipurpose Internet Mail Extensions. This directive specifies the protocol to be used for defining file attachments for the World Wide Web.
	magic_quotes_gpc	Enables/disables the Magic Quotes state for GPC (Get, Post, Cookie) operations. When this directive is enabled, all single quotes ('), double quotes ("), backslashes (\), and NULs are automatically (preceded by) a backslash. If magic_quotes_sybase is also enabled, a single quote is escaped with a single quote instead of with a backslash.
	magic_quotes_runtime	If this directive is enabled, most functions that return data from an external source, including databases (such as SQL), exec(), and text files, will have both single quotes (') and double quotes (") escaped with (preceded by) a backslash (\). If magic_quotes_sybase is also enabled, a single quote is escaped with a single quote instead of with a backslash.
	magic_quotes_sybase	Enables/disables the use of Sybase-style Magic Quotes: a single quote (') is escaped with

## Appendix B - PHP Configuration Information

		<p>(preceded by) a single quote instead of with a backslash (\).</p> <p><b>Note:</b> This directive is enabled only if <code>magic_quotes_gpc</code> or <code>magic_quotes_runtime</code> is also enabled.</p>
	<code>post_max_size</code>	Maximum size of POST data that php will accept.
	<code>register_argc_argv</code>	Specifies whether or not to instruct php to declare the variables <code>argv</code> and <code>argc</code> , which are used for holding the GET information. If you do not use these variables, disable this directive for increased performance.
	<code>register_globals</code>	Specifies whether or not to register the EGPCS variables (Environment, Get, Post, Cookie, and Server built-in) as global variables. If you do not want to clutter the global scope of your scripts with user data, turn off this directive. You will still be able to access the EGPCS variables by turning on the directive <code>track_vars</code> and then using the <code>\$HTTP_*_VARS[]</code> arrays.
	<code>register_long_arrays</code>	Tells php whether or not to register the deprecated long <code>\$HTTP_*_VARS</code> type predefined variables. When On (default), long predefined php variables like <code>\$HTTP_GET_VARS</code> will be defined. If you're not using them, it's recommended to turn them off for performance reasons. Instead, use the superglobal arrays, like <code>\$_GET</code> .
	<code>variables_order</code>	Specify the registration order for the GET, POST, Cookie, Environment and Server built-in variables (G, P, C, E, and S, respectively - often referred to as EGPCS and sometimes as GPC). Registration is done from left to right, and newer values override the older ones.
<b>Error Handling</b>	<code>display_errors</code>	Specifies whether or not php prints errors as part of the HTML script output.

<p><b>and Logging</b></p>		<p><b>Warning:</b> For production Web sites, it is strongly recommend to turn this feature Off and use error logging instead (see <a href="#">log_errors</a>). Enabling display_errors on a production Web site can reveal security information to end users, such as file paths on your Web server, your database schema, and other sensitive information.</p>
	display_startup_errors	<p>Even when display_error is on, errors that occur during php's startup sequence are not displayed. It is strongly recommended to keep this option off, except for debugging purposes.</p>
	docref_ext	<p>Extensions for document reference. See docref_root. The value of docref_ext must begin with a dot '.'</p>
	docref_root	<p>The new error format contains a reference to a page describing the error or function causing the error. In case of manual pages you can download the manual in your language and set this ini directive to the URL of your local copy. If your local copy of the manual can be reached by '/manual/' you can simply use docref_root=/manual/. Additionally you have to set docref_ext to match the fileextensions of your copy docref_ext=.html.</p>
	error_append_string	<p>Specifies the string php outputs after an error message.</p>
	error_log	<p>Defines the file in which php errors should be logged. If the special value <b>syslog</b> is used, the errors are sent to the system logger. On UNIX this is syslog(3), on Windows it means the Event Log.</p>
	error_prepend_string	<p>Specifies the string php outputs before an error message.</p>
	error_reporting	<p>Specifies the types of php errors to be reported. This directive is a bit field whose value is composed by ORing the values for the individual</p>

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		<p>error types.</p> <p><b>Warning:</b> If you use the error-control operator prefix @ when calling a php expression (which turns off error reporting for that particular expression), then it is strongly recommend that you have the track_errors feature enabled. That way, if an error occurs during the evaluation of that expression, you can find the error message in the global variable \$php_errormsg.</p>
	html_errors	<p>Turn off HTML tags in error messages. The new format for HTML errors produces clickable messages that direct the user to a page describing the error or function in causing the error. These references are affected by docref_root and docref_ext.</p>
	ignore_repeated_errors	<p>Do not log repeated messages. Repeated errors must occur in the same file on the same line until ignore_repeated_source is set to true.</p>
	ignore_repeated_source	<p>Ignore source of message when ignoring repeated messages. When this setting is On you will not log errors with repeated messages from different files or sourcelines.</p>
	log_errors	<p>Specifies whether or not php logs errors to a log file (server-specific log, stderr, or error_log).</p> <p><b>Warning:</b> For production Web sites, it is strongly recommend using error logging instead of displaying errors; see display_errors.</p>
	log_errors_max_len	<p>Set the maximum length of log_errors in bytes.</p>
	report_memleaks	<p>If this parameter is set to Off, then memory leaks will not be shown (on stdout or in the log). This has only effect in a debug compile, and if error_reporting includes E_WARNING in the allowed list.</p>
	report zend_debug	<p>Prints out descriptive bug messages in case of</p>

		error in PHP development.
	track_errors	<p>Specifies whether or not php stores the last error/warning message in \$php_errormsg.</p> <p><b>Warning:</b> If you use the error-control operator prefix @ when calling a php expression (which turns off error reporting for that particular expression), then it is strongly recommend that you have the track_errors feature enabled. That way, if an error occurs during the evaluation of that expression, you can find the error message in the global variable \$php_errormsg.</p>
<b>File Uploads</b>	file_uploads	Specifies whether to allow HTTP file uploads.
	upload_max_filesize	<p>Specifies the maximum file size in bytes that can be uploaded. Default is 2MB.</p> <p><b>Note:</b> The MAX_FILE_SIZE item of the php file upload feature cannot specify a file size that is greater than the size set in this directive.</p>
	upload_tmp_dir	<p>Defines the temporary directory to use for storing files when doing HTTP file upload. If no directory is specified, the system default directory is used.</p> <p><b>Note:</b> This directory must be writable by the user currently running php.</p>
<b>Fopen Wrappers</b>	allow_url_fopen	<p>This option enables the URL-aware fopen wrappers that enable accessing URL object like files. Default wrappers are provided for the access of remote files using the ftp or http protocol, some extensions like zlib may register additional wrappers.</p> <p>On Windows versions prior to php 4.3.0, the following functions do not support remote file accessing: include(), include_once(), require(), require_once() and the imagecreatefromXXX functions in the XLII, Image Functions extension.</p>

	allow_url_include	This option allows the use of URL-aware fopen wrappers with the following functions: include(), include_once(), require(), require_once. This setting requires allow_url_fopen to be on.
<b>Language Options</b>	allow_call_time_pass_reference	Enables/disables passing arguments by reference at function-call time. <b>Note:</b> This method of passing arguments by reference is not recommended, and future versions of php/Zend are likely not to support it.
	asp_tags	Enables/disables the use of ASP-like <% %> tags, in addition to the usual <?php ?> tags. Enabling this directive also enables the variable-value printing shorthand of the form <%= \$value %>. For more information, see Escaping from HTML.
	engine	<b>In Zend Core for IBM and Zend Core for i5, this will be listed under the apache2handler Extensions in the Extensions tab.</b> Turns php parsing on or off. This directive is really only useful in the Apache module version of php. It is used by sites that would like to turn php parsing on and off on a per-directory or per-virtual server basis. By putting engine off in the appropriate places in the httpd.conf file, php can be enabled or disabled.
	expose_php	Specifies whether php can expose the fact that it is installed on the server, for example, by adding its signature to the Web-server header. Exposing php is not a security threat in any way, but it does make it possible to determine that your server uses php. <b>Note:</b> This directive takes priority over the expose_launchpad directive.
	implicit_flush	Specifies whether or not to instruct php to tell the output layer to flush itself automatically after every

		<p>output block. If this directive is set to ON, it is equivalent to calling the php function flush() after every call to print() and echo() and for every HTML block.</p> <p><b>Warning:</b> This directive is generally recommended for debugging purposes only, since turning it on can seriously degrade performance.</p>
	output_buffering	<p>Enables/disables output buffering. Output buffering enables you to send header lines (including cookies) even after you have sent the body content, however, php's output layer will be slowed down a bit.</p>
	output_handler	<p>You can redirect all of the output of your scripts to a function. For example, if you set output_handler to mb_output_handler(), character encoding will be transparently converted to the specified encoding. Setting any output handler automatically turns on output buffering.</p> <p><b>Note:</b> You cannot use both mb_output_handler() with ob_iconv_handler() and you cannot use both ob_gzhandler() and zlib.output_compression.</p>
	precision	<p>Specifies the number of significant digits displayed after the decimal point for floating point numbers. See also bcmath.scale in the Extensions tab.</p>
	serialize_precision	<p>Store serialize_precision significant digits after the floating point.</p>
	short_open_tag	<p>Enables/disables the use of the short form of the php opening tag (&lt;? ?&gt;). If this directive is disabled, you have to use the long form of the php opening tag (&lt;?php ?&gt;). The &lt;script&gt;...&lt;/script&gt; tags, like the long form tag, are recognized regardless of the value of this directive.</p> <p><b>Note:</b> php can be used in combination with XML only if this directive is disabled.</p>

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	unserialize_callback_func	The unserialize() callback function will called (with the undefined class' name as parameter), if the unserializer finds an undefined class which should be instanciated. A warning appears if the specified function is not defined, or if the function doesn't include/implement the missing class. Therefore, only set this entry if you want to implement such a callback-function.
	y2k_compliance	Specifies whether or not the php script should be made year-2000 compliant. <b>Warning:</b> Making the php script <b>Y2K compliant</b> (by setting this directive to On) will cause problems with non-Y2K-compliant browsers.
	zend.ze1_compatibility_mode	Enable compatibility mode with Zend Engine 1 (php 4). It affects the cloning, casting (objects with no properties cast to FALSE or 0), and comparing of objects. In this mode, objects are passed by value instead of reference by default.
- Colors for Syntax Highlighting mode	highlight.bg	Specifies color used for highlighting a background. You can supply a different value either in RGB format or as a standard color name.
	highlight.comment	Specifies the color used for highlighting a comment. You can supply a different value either in RGB format or as a standard color name.
	highlight.default	Specifies the color used for highlighting a default. You can supply a different value either in RGB format or as a standard color name.
	highlight.html	Specifies the color used for highlighting html text. You can supply a different value either in RGB format or as a standard color name.
	highlight.keyword	Specifies the color used for highlighting a keyword. You can supply a different value either in RGB format or as a standard color name.
	highlight.string	Specifies the color used for highlighting a string.

		You can supply a different value either in RGB format or as a standard color name.
<b>- Safe Mode</b>	disable_classes	This directive allows you to disable certain classes for security reasons. It takes on a comma-delimited list of class names. disable_classes is not affected by Safe Mode.
	disable_functions	Letting the user call certain functions may constitute a potential security breach. This directive specifies a comma-delimited list of functions names that are disabled for security reasons. This directive is not affected by whether Safe Mode is enabled or disabled. <b>Warning:</b> If this directive is empty, php will let the user call any function.
	open_basedir	Limits the files that can be opened by php to the specified directory-tree, including the file itself. This directive is NOT affected by whether Safe Mode is turned On or Off.
	safe_mode	Enables/disables Safe Mode. Enabling Safe Mode imposes several restrictions on what php can do, for example, files can be opened only if they are in the document root. <b>Note:</b> CGI users should always enable Safe Mode.
	safe_mode_exec_dir	Letting the user run certain programs may constitute a potential security breach. This directive contains a directory name, such as usr/local/bin. When php is in Safe Mode, the user can run only those programs located in the given directory. system() and other functions that execute system programs will refuse to run programs in other directories. <b>Warning:</b> If this directive is empty, php will let the user run any program.
	safe_mode_gid	By default, Safe Mode does a UID compare check

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		when opening files. If you want to relax this to a GID compare, then turn on <code>safe_mode_gid</code> . This specifies whether to use UID ( <code>FALSE</code> ) or GID ( <code>TRUE</code> ) checking upon file access.
	<code>safe_mode_include_dirs</code>	UID/GID checks are bypassed when including files from this directory and its subdirectories (directory must also be in <code>include_path</code> or full path must including).  As of php 4.2.0, this directive can take a colon (semi-colon on Windows) separated path in a fashion similar to the <code>include_path</code> directive, rather than just a single directory.
<b>Mail</b>	<code>mail.force_extra_parameters</code>	Forces the addition of the specified parameters to be passed as extra parameters to the sendmail binary. These parameters will always replace the value of the 5th parameter to <code>mail()</code> , even in safe mode.
	<code>sendmail_from</code>	Specifies which "From:" mail address should be used in mail sent from php under Windows. This directive also sets the "Return-Path:" header.
	<code>sendmail_path</code>	Where the sendmail program can be found, usually <code>/usr/sbin/sendmail</code> or <code>/usr/lib/sendmail</code> . configure does an honest attempt of locating this one for you and set a default, but if it fails, you can set it here. Systems not using sendmail should set this directive to the sendmail wrapper/replacement their mail system offers, if any.
	SMTP	Used under Windows only. Specifies the host name or IP address of the SMTP server php which should be used for mail sent with the <code>mail()</code> function.
	<code>smtp_port</code>	Used under Windows only: Number of the port to connect to the server specified with the SMTP setting when sending mail with <code>mail()</code> ; defaults to 25.

<b>Misc.</b>	browscap	Defines the name of the browser capabilities file. <b>Note:</b> For a description of the settings in the browser capabilities file itself, see the php function <code>get_browser()</code> .
	ignore_user_abort	If false, scripts will be terminated as soon as they try to output something after a client has aborted their connection.
<b>Paths and Directories</b>	doc_root	Specifies the php root directory on the server. If php is configured in Safe Mode (the directive <code>safe_mode</code> is enabled), no files outside this directory are served. <b>Note:</b> This directive is used only if it is not empty.
	enable_dl	Specifies whether or not to enable the php function <code>dl()</code> , which loads php extensions at run time. <b>Note:</b> The function <code>dl()</code> does not work correctly under multithreaded servers, such as IIS or Zeus, and is automatically disabled on these servers.
	extension_dir	Defines the directory in which php should look for dynamically loadable extensions (modules).
	include_path	Defines a list of directories where the following functions will search for files: <code>require()</code> , <code>include()</code> , and <code>fopen_with_path()</code> . The format is same as the system's PATH environment variable: a list of directories separated by colons (:) in UNIX or by semicolons (;) in Windows. The default value for this directive is an empty string (""). Only the current directory will be searched.
	user_dir	Defines the base name of the directory used on a user's home directory for php files, for example, <code>public_html</code> . This is the directory under which php opens the script using <code>/~username</code> . <b>Note:</b> This directive is used only if it is not empty.
<b>Resource Limits</b>	max_execution_time	Specifies the maximum time in seconds that one script is allowed to run before it is terminated by

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		the parser. This helps prevent poorly written scripts from tying up the server. The present default value is 30 seconds.
	max_input_nesting_level	Limits the nesting level of input variables.
	max_input_time	Sets the maximum time in seconds a script is allowed to receive input data, like POST, GET and file uploads. The present default value is 60 seconds.
	memory_limit	Specifies the maximum amount of memory in bytes that one script is allowed to allocate. This helps prevent poorly written scripts from tying up all the available memory on a server. The present default value is 128MB.
	realpath_cache_size	Determines the size of the realpath cache to be used by php. This value should be increased on systems where php opens many files, to reflect the quantity of the file operations performed.
	realpath_cache_ttl	Duration of time (in seconds) for which to cache realpath information for a given file or directory. For systems with rarely changing files, consider increasing the value.

## Appendix C - Zend Core Extensions

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The following PHP Extensions are included in the Core version 2.5 installation package:

**Legend:**

- Extension installed but disabled by default.

+ Extension installed and enabled by default.

0 Extension is not installed.

Extension Name	Description	Windows	Unix/ Linux
<b>bcmath</b>	<b>Arbitrary Precision Mathematics</b> - PHP offers the Binary Calculator which supports numbers of any size and precision, represented as strings.	+	+
<b>bz2</b>	<b>Bzip2 Compression</b> - The bzip2 functions are used to transparently read and write bzip2 (.bz2) compressed files.	-	-
<b>calendar</b>	<b>Calendar Conversions</b> - The calendar extension presents a series of functions to simplify converting between different calendar formats. The intermediary or standard it is based on is the Julian Day Count.	-	-
<b>com_dotnet</b>	<b>Component Object Model</b> - An object orientated layer (and associated services) on top of DCE RPC (an open standard) which defines a common calling convention that enables code written in any language to call and interoperate with code written in any other language.	+	0
<b>ctype</b>	<b>Character Classifications</b> - Checks whether a character or string falls into a certain character class according to the current locale.	+	+
<b>curl</b>	<b>Client URL Library Functions</b> - Allows you to connect to and communicate with many different types of servers with many different types of protocols.  <b>Note:</b> libcurl libraries must be installed in order for this extension to function.	+	+

<b>date</b>	<b>Date Module</b> - Allows you to get the date from the server where your PHP scripts are running. You can use this function to format the date in many different ways.	+	+
<b>dom</b>	<b>DOM XML</b> - The DOM extension is the replacement for the DOM XML extension from PHP 4. The extension still contains many old functions, but they should no longer be used. In particular, functions that are not object-oriented should be avoided.  The extension allows you to operate on an XML document with the DOM API.	+	+
<b>exif</b>	<b>(Exchangeable Image File Format) Data</b> - With the exif extension you are able to work with image meta data.	-	-
<b>filter</b>	Serves to validate and filter data coming from some insecure source, such as user inputs.	+	+
<b>ftp</b>	<b>FTP Client</b> - The functions in this extension implement client access to file servers speaking the File Transfer Protocol (FTP). This extension is meant for detailed access to an FTP server providing a wide range of control to the executing script.	-	-
<b>gd</b>	<b>GD (Image Manipulation)</b> - With the GD library of image functions PHP can be used to create and manipulate image files in a variety of different image formats, including gif, png, jpg, wbmp, and xpm. Even more conveniently, PHP can output image streams directly to a browser.	+	+
<b>gettext</b>	The <b>gettext</b> functions implement an NLS (Native Language Support) API which can be used to internationalize your PHP applications.	-	-
<b>gmp</b>	<b>GNU MP Library (Arbitrary Length Integers)</b> - These functions allow you to work with arbitrary-length integers using the GNU MP library.  <b>Note:</b> GMP libraries must be installed in order for this extension to function.	-	-

<b>hash</b>	Allows direct or incremental processing of arbitrary length messages using a variety of hashing algorithms.	+	+
<b>ibm_db2</b>	<b>IBM DB2 Database Access</b> - These functions enable you to access the IBM DB2 Universal Database, IBM Cloudscape, and Apache Derby databases using the DB2 Call Level Interface (DB2 CLI).	0	0
<b>iconv</b>	<b>Character Set Conversion</b> - This module contains an interface to iconv character set conversion facility. With this module, you can turn a string represented by a local character set into the one represented by another character set, which may be the Unicode character set.	+	-
<b>imap</b>	<b>IMAP, POP3 and NNTP</b> - The underlying c-client library also supports NNTP, POP3 and local mailbox access methods.	+	+
<b>JSON</b>	Implements the <b>JavaScript Object Notation (JSON)</b> data-interchange format.	+	+
<b>ldap</b>	<b>OpenLDAP</b> - LDAP is the Lightweight Directory Access Protocol, and is a protocol used to access "Directory Servers". The Directory is a special kind of database that holds information in a tree structure.  <b>Note:</b> LDAP libraries must be installed in order for this extension to function	-	-
<b>mbstring</b>	<b>Multibyte Character Processing</b> - Multibyte character encoding schemes were developed to express more than 256 characters in the regular bitwise coding system. When you manipulate (trim, split, splice, etc.) strings encoded in a multibyte encoding, you need to use special functions since two or more consecutive bytes may represent a single character in such encoding schemes.	+	+
<b>mcrypt</b>	<b>MCrypt - An interface to the mcrypt library.</b>  <b>Note:</b> Libmcrypt libraries must be installed in order for this extension to function.	-	-

<b>mhash</b>	<p><b>Hash Algorithms</b> - Mhash can be used to create checksums, message digests, message authentication codes, and more.</p> <p><b>Note:</b> Libmhash libraries must be installed in order for this extension to function.</p>	-	-
<b>ming</b>	<p><b>Ming Functions for Flash</b> - An open-source (LGPL) library which allows you to create SWF ("Flash") format movies.</p> <p><b>Warning:</b> This extension is experimental. The behaviour of this extension may change without notice in a future release of PHP. Use this extension at your own risk.</p> <p><b>Note:</b> Ming libraries must be installed in order for this extension to function.</p>	0	-
<b>mssql</b>	<p><b>MS SQL (FreeTDS)</b> - Allows you to access MS SQL Server database.</p> <p><b>Note:</b> FreeTDS libraries must be installed in order for this extension to function</p>	-	0
<b>mysql</b>	<p><b>MySQL</b> - Allows you to access MySQL database servers.</p> <p><b>Note:</b> MySQL libraries must be installed in order for this extension to function</p>	+	+
<b>mysqli</b>	<p><b>MySQL Improved</b> - Allows you to access the functionality provided by MySQL 4.1 and above.</p> <p><b>Note:</b> MySQL libraries must be installed in order for this extension to function</p>	+	+
<b>oci8 - Oracle</b>	<p><b>Oracle Call Interface</b> - Supports binding of PHP variables to Oracle placeholders, has full LOB, FILE and ROWID support, and allows you to use user-supplied define variables. Allows access to Oracle7, 8 and 9 databases.</p>	+	+

	<p><b>Note:</b> This can only be enabled if the Oracle Instant Client is installed.</p> <p>See <a href="http://www.oracle.com/technology/tech/php/pdf/underground-php-oracle-manual.pdf">http://www.oracle.com/technology/tech/php/pdf/underground-php-oracle-manual.pdf</a> for more on the OIC Libraries and Oracle Extensions.</p> <p>See <a href="http://www.php.net/manual/en/function.oci-connect.php">http://www.php.net/manual/en/function.oci-connect.php</a> for information on using the oci_connect function to connect to your Oracle database.</p>		
<b>odbc</b>	<p><b>DB2 Unified ODBC</b> - In addition to normal ODBC support, the Unified ODBC functions in PHP allow you to access several databases that have borrowed the semantics of the ODBC API to implement their own API.</p>	-	0
<b>openssl</b>	<p><b>OpenSSL</b> - This module uses the functions of &gt;&gt;OpenSSL for generation and verification of signatures and for sealing (encrypting) and opening (decrypting) data.</p> <p>See Appendix F - Loading the mod_ssl Module for more information on enabling an SSL connection.</p> <p><b>Note:</b> OpenSSL libraries must be installed in order for this extension to function.</p>	+	+
<b>pcntl</b>	<p><b>Process Control Functions</b> - Process Control support in PHP implements the Unix style of process creation, program execution, signal handling and process termination. Process Control should not be enabled within a Webserver environment and unexpected results may happen if any Process Control functions are used within a webserver environment.</p>	0	-
<b>pcre</b>	<p><b>Perl Compatible Regular Expressions</b> - The syntax for patterns used in these functions closely resembles Perl.</p>	+	+
<b>posix</b>	<p><b>POSIX</b> - Contains an interface to those functions defined in the IEEE 1003.1 (POSIX.1) standards document which are not accessible through other means.</p>	0	-

	<p><b>Warning:</b> Sensitive data can be retrieved with the POSIX functions, e.g. <code>posix_getpwnam()</code> and friends. None of the POSIX functions perform any kind of access checking when safe mode is enabled. It's therefore strongly advised to disable the POSIX extension.</p>		
<b>pdo</b>	<p><b>Base PDO (PHP Data Objects) Driver</b> - The PHP Data Objects (PDO) extension defines a lightweight, consistent interface for accessing databases in PHP. Each database driver that implements the PDO interface can expose database-specific features as regular extension functions.</p>	+	+
<b>pdo_ibm</b>	<p><b>PDO_IBM</b> is a driver that implements the PHP Data Objects (PDO) interface to enable access from PHP to IBM databases.</p>	0	0
<b>pdo_informix</b>	<p>The <b>Informix driver</b> for Informix (IDS) 7.x, SE 7.x, Universal Server (IUS) 9.x and IDS 2000 is implemented in "ifx.ec" and "php3_ifx.h" in the informix extension directory.</p> <p><b>Note:</b> Informix (CSDK) libraries must be installed in order for this extension to function</p>	0	0
<b>pdo_mysql</b>	Allows access to MySQL 3.x/4.0 databases	+	+
<b>pdo_oci</b>	A driver that implements the <b>PHP Data Objects (PDO)</b> interface to enable access from PHP to Oracle databases through the OCI library.	+	+
<b>pdo_pgsql</b>	Allows access to PostgreSQL databases	+	+
<b>reflection</b>	<p><b>PHP Reflection Support</b> - PHP 5 comes with a complete reflection API that adds the ability to reverse-engineer classes, interfaces, functions and methods as well as extensions. The reflection API also offers ways of retrieving doc comments for functions, classes and methods.</p>	+	+

<b>session</b>	<b>Session Management</b> - Session support in PHP consists of a way to preserve certain data across subsequent accesses.	+	+
<b>shmop</b>	<b>Shared Memory</b> - Shmop is an easy-to-use set of functions that allows PHP to read, write, create and delete Unix shared memory segments.	-	-
<b>simplexml</b>	<b>SimpleXML</b> - The SimpleXML extension provides a very simple and easily usable toolset to convert XML to an object that can be processed with normal property selectors and array iterators.  <b>Note:</b> libxml libraries must be installed in order for this extension to function	+	+
<b>soap</b>	<b>SOAP</b> - The SOAP extension can be used to write SOAP Servers and Clients.  <b>Note:</b> libxml libraries must be installed in order for this extension to function	+	+
<b>sockets</b>	<b>Socket Communications</b> - The socket extension implements a low-level interface to the socket communication functions based on the popular BSD sockets, providing the possibility to act as a socket server as well as a client.	+	-
<b>spl</b>	<b>Standard PHP Library</b> - SPL is a collection of interfaces and classes that are meant to solve standard problems.	+	+
<b>sqlite</b>	<b>SQLite</b> - This is an extension for the SQLite Embeddable SQL Database Engine. SQLite is a C library that implements an embeddable SQL database engine. Programs that link with the SQLite library can have SQL database access without running a separate RDBMS process.	-	-
<b>sysvmsg</b>	Enables <b>System V messages support</b> - The messaging functions may be used to send and receive messages to/from other processes. They provide a simple and	0	-

	effective means of exchanging data between processes, without the need for setting up an alternative using Unix domain sockets.		
<b>sysvsem</b>	Enables <b>System V semaphore support</b> - Semaphores may be used to provide exclusive access to resources on the current machine, or to limit the number of processes that may simultaneously use a resource.	0	-
<b>sysvshm</b>	Enables <b>System V shared memory support</b> - Shared memory may be used to provide access to global variables.	0	-
<b>standard</b>	<b>Standard PHP functions</b>	+	+
<b>tidy</b>	<b>Tidy HTML Clean and Repair</b> - Tidy is a binding for the Tidy HTML clean and repair utility which allows you to not only clean and otherwise manipulate HTML documents, but also traverse the document tree.  <b>Note:</b> libtidy libraries must be installed in order for this extension to function	-	-
<b>tokenizer</b>	<b>Interface to Zend Engine's PHP Scanner</b> - The tokenizer functions provide an interface to the PHP tokenizer embedded in the Zend Engine. Using these functions you may write your own PHP source analyzing or modification tools without having to deal with the language specification at the lexical level.	-	-
<b>wddx</b>	<b>WDDX (Web Distributed Data Exchange)</b> - These functions are intended for work with >>WDDX  <b>Note:</b> expat (Apache) libraries must be installed in order for this extension to function	+	+
<b>xml</b>	<b>SAX XML</b> - XML (eXtensible Markup Language) is a data format for structured document interchange on the Web. This toolkit lets you parse, but not validate, XML documents. This extension lets you create XML parsers and then define handlers for different XML events.	+	+

<b>xmlreader</b>	<p><b>XML Reader</b> - The XMLReader extension is an XML Pull parser. The reader acts as a cursor going forward on the document stream and stopping at each node on the way.</p> <p><b>Note:</b> libxml libraries must be installed in order for this extension to function</p>	+	-
<b>xmlrpc</b>	<p><b>XML-RPC</b> - These functions can be used to write XML-RPC servers and clients.</p> <p><b>Warning:</b> This extension is experimental. The behaviour of this extension may change without notice in a future release of PHP. Use this extension at your own risk.</p>	-	0
<b>xmlwriter</b>	<p><b>XML Writer</b> - Represents a writer that provides a non-cached, forward-only means of generating streams or files containing XML data. This extension can be used in an object oriented style or a procedural one. Every method documented describes the alternative procedural call.</p>	+	+
<b>xsl</b>	<p><b>XSL Transformations</b> - The XSL extension implements the XSL standard, performing XSLT transformations using the libxslt library.</p> <p><b>Note:</b> libxslt libraries must be installed in order for this extension to function</p>	-	-
<b>zip</b>	<p><b>ZIP Archives</b> - Enables you to transparently read ZIP compressed archives and the files inside them.</p> <p><b>Note:</b> Zlib libraries must be installed in order for this extension to function</p>	-	-
<b>zlib</b>	<p><b>zlib Compression (incl. gzip)</b> - Enables you to transparently read and write gzip (.gz) compressed files, through versions of most of the filesystem functions which work with gzip-compressed files (and uncompressed files without sockets.)</p>	+	+



### To uninstall extensions:

1. Open the Zend Updater.

By default, this is located in:

Linux/Unix: /usr/local/Zend/Core/setup/ZendUpdater

Windows: Start | All Programs | Zend Core For Oracle 2.5 | Zend Updater.

2. Select Update Zend Core.
3. Select Erase Components.

A list of erasable components will be displayed.

Extensions will be prefixed with a "/ext".

4. Select which extensions to delete.
5. Click OK.
6. Click Exit until you have exited the Zend Updater.
7. Restart the web server in order for your changes to take effect.

To restart your web server:

Under Windows:

Open your Apache Monitor (by default located in C:\Program Files\Zend\Apache2\bin\ApacheMonitor.exe if you installed Zend Core's bundled Apache) and select Restart.

Under Windows Vista, you must restart the server from your Services Manager.

Under Linux/Unix:

Click the Restart Server button  [Restart Server](#), found in the top-right of the Zend Core Administration GUI.

#### Note:

Some extensions have dependencies on certain libraries.

For a full list of libraries installed with Zend Core, see [Appendix D - Libraries](#).

## Appendix D - Libraries

---

The following libraries are included in the Core version 2.5 installation package:

Library	Description	Windows	Linux /Unix
<b>libcurl</b>	A client-side URL transfer library supporting FTP, FTPS, HTTP, HTTPS, SCP, SFTP, TFTP, TELNET, DICT, FILE and LDAP. See <a href="http://curl.haxx.se">http://curl.haxx.se</a> for more information.	Available	Available
<b>GMP</b>	GMP is a library for arbitrary precision arithmetics, operating on signed integers, rational numbers, and floating point numbers. See <a href="http://gmplib.org">http://gmplib.org</a> for more information.	Available	Available
<b>LDAP client libraries</b>	The Lightweight Directory Access Protocol (LDAP) libraries provide access to X.500 directory services. See <a href="http://www.openldap.org">http://www.openldap.org</a> for more information.	Available	Available
<b>libmcrypt</b>	Libmcrypt is a companion to Mcrypt. It contains the encryption functions and provides a standardized mechanism for accessing them. See <a href="http://sourceforge.net/projects/mcrypt">http://sourceforge.net/projects/mcrypt</a> for more information.	Available	Available
<b>Libmhash</b>	Libmhash provides a uniform interface to a large number of hash algorithms. These algorithms can be used to compute checksums, message digests, and other signatures. See <a href="http://mhash.sourceforge.net">http://mhash.sourceforge.net</a> for more information.	Available	Available
<b>Ming Libraries</b>	Ming is an SWF ("Flash") file format output library. It is written in C, with wrappers for C++, Python, and PHP, plus rudimentary support for Ruby and Perl. See <a href="http://sourceforge.net/projects/ming">http://sourceforge.net/projects/ming</a> for more information.	Available	Available

<b>OpenSSL</b>	OpenSSL is a library that provides cryptographic functionality to applications such as secure web servers. See <a href="http://www.openssl.org">http://www.openssl.org</a> for more information. See Appendix F - Loading the mod_ssl Module for more information on enabling an SSL connection.	Available	Available
<b>Informix Client Software Development Kit (CSDK)</b>	The IBM Informix Client Software Development Kit (Client SDK) offers a single packaging of several application programming interfaces (APIs) that are optimized for developing applications for Informix servers.	N/A	N/A
<b>t1</b>	t1lib is a library written in C which implements functions for generating bitmaps from Adobe Type 1 fonts. For more information see: <a href="http://gnuwin32.sourceforge.net/packages/t1lib.htm">http://gnuwin32.sourceforge.net/packages/t1lib.htm</a>	Available	Available
<b>libxml</b>	Libxml2 is the XML C parser and toolkit developed for the Gnome project (but usable outside of the Gnome platform). See <a href="http://www.xmlsoft.org">http://www.xmlsoft.org</a> for more information.	Available	Available
<b>libtidy</b>	TLibTidy is a Pascal wrapper for the library version of the HTML Tidy program. See <a href="http://tidy.sourceforge.net">http://tidy.sourceforge.net</a> for more information.	Available	Available
<b>libxslt</b>	Libxslt is the XSLT C library developed for the GNOME project. XSLT itself is an XML language to define transformation for XML. See <a href="http://xmlsoft.org/XSLT">http://xmlsoft.org/XSLT</a> for more information.	Available	Available
<b>Zlib</b>	Zlib is a lossless data-compression library for use on virtually any computer hardware and operating system. See <a href="http://www.zlib.net">http://www.zlib.net</a> for more information.	Available	Available
<b>FreeTDS</b>	FreeTDS is a set of libraries for Unix and Linux that allows your programs to natively talk to Microsoft SQL Server and Sybase databases. See <a href="http://www.freetds.org">http://www.freetds.org</a> for more information.	Available	N/A

<b>MySQL Libraries</b>	A collection of MySQL Libraries. See <a href="http://www.mysql.com">http://www.mysql.com</a> for more information.	Available	Available
<b>PostgreSQL Libraries</b>	Included with its standard function library are hundreds of built-in functions that range from basic math and string operations to cryptography and Oracle compatibility. See <a href="http://www.postgresql.org">http://www.postgresql.org</a> for more information.	Available	Available
<b>IBM DB2 Client Libraries</b>	Provide connectivity to IBM DB2 databases. See <a href="http://www.ibm.com/db2">http://www.ibm.com/db2</a> for more information.	N/A	N/A
<b>OIC Libraries</b>	Provide connectivity to Oracle Databases. See <a href="http://www.oracle.com/technology/tech/php/pdf/underground-php-oracle-manual.pdf">http://www.oracle.com/technology/tech/php/pdf/underground-php-oracle-manual.pdf</a> for more on the OIC Libraries and Oracle Extensions. See <a href="http://www.php.net/manual/en/function.oci-connect.php">http://www.php.net/manual/en/function.oci-connect.php</a> for information on using the oci_connect function to connect to your Oracle database.	Available	Available

**Note:**  
The listed libraries will be installed by default with Zend Core for Oracle and can be uninstalled using the Zend Updater.

**To uninstall libraries:**

1. Open the Zend Updater.

By default, this is located in:

Linux/Unix: /usr/local/Zend/Core/setup/ZendUpdater

Windows: Start | All Programs | Zend Core For Oracle v2.5 | Zend Updater.

2. Select Update Zend Core.
3. Select Erase Components.

A list of erasable components will be displayed.

Libraries will be prefixed with a "/lib".

4. Select which libraries to delete.
5. Click OK.
6. Click Exit until you have exited the Zend Updater.
7. Restart the web server in order for your changes to take effect.

To restart your web server:

Under Windows:

Open your Apache Monitor (by default located in C:\Program Files\Zend\Apache2\bin\ApacheMonitor.exe if you installed Zend Core's bundled Apache) and select Restart.

Under Windows Vista, you must restart the server from your Services Manager.

Under Linux/Unix:

Click the Restart Server button  [Restart Server](#), found in the top-right of the Zend Core Administration GUI.

## Appendix E - Misc. Directives Configuration Information

---

The following Misc. Directives can be configured from Zend Core:

Categories:

[dbx - Database Abstraction Layer](#)

[SQL](#)

[Informix](#)

[Sybase](#)

[Ingres II](#)

[Sybase-CT](#)

[mSQL](#)

[Syslog](#)

[PostgressSQL](#)

[Verisign Payflow Pro](#)

<b>dbx - database Abstract Layer</b>	dbx.colnames_case	Specifies whether to return column names unchanged or converted to uppercase or lowercase.
<b>Informix</b>	ifx.allow_persistent	Specifies whether or not to allow persistent Informix connections.
	ifx.blobinfile	Set this directive to True if you want to return Informix BLOB columns in a file, or to False if you want to keep them in memory. You can override the setting of this directive at run time with the PHP function <code>ifx_blobinfile_mode()</code> .
	ifx.byteasvarchar	Set this directive to True if you want to return Informix BYTE columns as normal strings in select statements, or to False if you want to use blob id parameters. You can override the setting of this directive at run time with the PHP function <code>ifx_byteasvarchar()</code> .
	ifx.charasvarchar	Enables/disables trimming the trailing spaces from Informix CHAR columns when they are fetched.

Appendix E - Misc. Directives Configuration Information

		<b>Note:</b> Enabling this directive can be very helpful to Informix SE users.
	ifx.default_host	Defines the Informix default host to connect to if the default host is not defined in either ifx_connect() or ifx_pconnect(). Note: When PHP is in Safe Mode, this directive is not used.
	ifx.default_password	Defines the Informix default password to use if the default password is not defined in either ifx_connect() or ifx_pconnect(). Note: When PHP is in Safe Mode, this directive is not used.
	ifx.default_user	Defines the Informix default user ID to use if the default user ID is not defined in either ifx_connect() or ifx_pconnect(). Note: When PHP is in Safe Mode, this directive is not used.
	ifx.max_links	Specifies the maximum number of all Informix connections per process, including persistent connections. -1 means no limit.
	ifx.max_persistent	Specifies the maximum number of persistent Informix connections per process. -1 means no limit.
	ifx.nullformat	Set this directive to True if you want Informix NULL columns returned as the literal string "NULL", or to False if you want them returned as the empty string "". You can override the setting of this directive at run time with the PHP function ifx_nullformat().
	ifx.textasvarchar	Set this directive to On if you want to return Informix TEXT columns as normal strings in select statements, or to False if

		you want to use blob id parameters. You can override the setting of this directive at run time with the PHP function <code>ifx_textasvarchar()</code> .
<b>Ingres II</b>	<code>ingres.allow_persistent</code>	Specifies whether or not to allow persistent Ingres II connections.
	<code>ingres.default_database</code>	Defines the Ingres II default database, where the format is <code>[node_id: :]dbname[/srv_class]</code> . <b>Note:</b> When PHP is in Safe Mode, this directive is not used.
	<code>ingres.default_password</code>	Defines the Ingres II default password. <b>Note:</b> When PHP is in Safe Mode, this directive is not used.
	<code>ingres.default_user</code>	Defines the Ingres II default user. <b>Note:</b> When PHP is in Safe Mode, this directive is not used.
	<code>ingres.max_links</code>	Specifies the maximum number of all Ingres II connections per process, including persistent connections. -1 means no limit.
	<code>ingres.max_persistent</code>	Specifies the maximum number of persistent Ingres II connections per process. -1 means no limit.
<b>mSQL</b>	<code>msql.allow_persistent</code>	Specifies whether or not to allow persistent mSQL connections.
	<code>msql.max_links</code>	Specifies the maximum number of all mSQL connections per process, including persistent connections. -1 means no limit.
	<code>msql.max_persistent</code>	Specifies the maximum number of persistent mSQL connections per process. -1 means no limit.

Appendix E - Misc. Directives Configuration Information

<b>PostgreSQL</b>	<code>pgsql.allow_persistent</code>	Specifies whether or not to allow persistent PostgreSQL connections.
	<code>pgsql.auto_reset_persistent</code>	Detect broken persistent links with <code>pg_pconnect()</code> . Needs a little overhead.
	<code>pgsql.ignore_notice</code>	Whether or not to ignore PostgreSQL backend notices.
	<code>pgsql.log_notice</code>	Whether or not to log PostgreSQL backends notice messages. The PHP directive <code>pgsql.ignore_notice</code> must be off in order to log notice messages.
	<code>pgsql.max_links</code>	Specifies the maximum number of all PostgreSQL connections per process, including persistent connections. -1 means no limit.
	<code>pgsql.max_persistent</code>	Specifies the maximum number of persistent PostgreSQL connections per process. -1 means no limit.
<b>SQL</b>	<code>sql.safe_mode</code>	If the SQL Safe Mode option is enabled the MySQL and Ingres extensions will ignore the supplied host, user and password information and will use only the default ones.
<b>Sybase</b>	<code>sybase.allow_persistent</code>	Specifies whether or not to allow persistent Sybase connections.
	<code>sybase.compatibility_mode</code>	Specifies compatibility mode with the older versions of PHP 3.0. If this directive is on, it will cause PHP to automatically assign types to results according to their Sybase type, instead of treating all results as strings. Note: This compatibility mode probably will not stay around forever, so try making the necessary changes to your code and turning off this directive.

	sybase.max_links	Specifies the maximum number of all Sybase connections per process, including persistent connections. -1 means no limit.
	sybase.max_persistent	Specifies the maximum number of persistent Sybase connections per process. -1 means no limit.
	sybase.min_error_severity	Specifies the minimum Sybase error severity that PHP displays. Errors that have a severity that is lower than the value of this directive are not displayed.
	sybase.min_message_severity	Specifies the minimum Sybase message severity that PHP displays. Messages that have a severity that is lower than the value of this directive are not displayed.
<b>Sybase-CT</b>	sybct.allow_persistent	Specifies whether or not to allow persistent Sybase-CT connections.
	sybct.max_links	Specifies the maximum number of all Sybase-CT connections per process, including persistent connections. -1 means no limit.
	sybct.max_persistent	Specifies the maximum number of persistent Sybase-CT connections per process. -1 means no limit.
	sybct.min_client_severity	Specifies the minimum Sybase-CT client message severity to display; client messages having a severity that is lower than the value of this directive are not displayed.
	sybct.min_server_severity	Specifies the minimum Sybase-CT server message severity to display; server messages having a severity that is lower

Appendix E - Misc. Directives Configuration Information

		than the value of this directive are not displayed.
<b>Syslog</b>	define_syslog_variables	Specifies whether or not to define the syslog variables, such as \$LOG_PID, \$LOG_CRON, etc. Performance is improved by setting this directive to 0. At run time you can always define the syslog variables by calling the PHP function define_syslog_variables().
<b>Verisign Payflow Pro</b>	pfpro.defaulthost	Defines the Verisign Payflow Pro default host that PHP connects to, i.e. the default Signio server. <b>Note:</b> For processing live transactions you cannot use the default value as it stands. One reasonable alternative is to change the default to be connect.signio.com. <b>Note:</b> When PHP is in Safe Mode, this directive is not used.
	pfpro.defaultport	Defines the Verisign Payflow Pro default port that PHP connects to. <b>Note:</b> When PHP is in Safe Mode, this directive is not used.
	pfpro.defaulttimeout	Specifies the Verisign Payflow Pro default timeout, in seconds. <b>Note:</b> The timeout countdown appears to begin only after a link to the processor has been established, therefore, in the event of DNS or network problems, your script could continue for a long period of time.

## Appendix F - Loading the mod\_ssl Module

---

The mod\_ssl module allows you to enable SSL support on your Apache web server and is needed to enable Apache for SSL-Requests (https).

For more information on the mod\_ssl module, see the mod\_ssl user manual at <http://www.modssl.org/docs/2.8>.

The bundled Apache that comes with Zend Core includes support for the ssl\_module, but this needs to be loaded in order to activate it. You must have acquired an SSL certificate from an SSL certificate provider or have created your own SSL certificate for the mod\_ssl to be successfully loaded.



### To load the mod\_ssl module:

1. Open your httpd.conf file.

By default, this will be located in:

Windows: C:\Program Files\Zend\Apache2\conf\httpd.conf

Linux/Unix: /usr/local/zend/Apache2/conf/httpd.conf

2. Uncomment the following line by removing the "#".

```
Include conf/extra/httpd-ssl.conf
```

This calls the SSL configuration file.

3. Place your server.crt and server.key certification files in the 'conf' folder.
4. Restart Apache for the changes to take effect.

To restart your web server:

Under Windows:

Open your Apache Monitor (by default located in C:\Program Files\Zend\Apache2\bin\ApacheMonitor.exe if you installed Zend Core's bundled Apache) and select Restart.

Under Windows Vista, you must restart the server from your Services Manager.

Under Linux/Unix:

Click the Restart Server button  [Restart Server](#), found in the top-right of the Zend Core Administration GUI.

The mod\_ssl module will now be loaded.

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