

Zend Optimizer™

User Guide

Scope

The Zend Optimizer™ boosts PHP performance by going over the intermediate code generated by the standard Zend run-time compiler and optimizing it for faster execution. In addition, it enables PHP installations to read Zend Intermediate Code files that were encoded by the Zend Encoder™ (zendenc) and the Zend SafeGuard Suite™.

The Zend Optimizer is available **free** of charge, at the [Zend Store](#).

The Zend Optimizer supports the following platforms:

- Solaris®/sparc 2.6 or later
- Linux® (i386/glibc 2.1 / 2.2 and libc5)
- FreeBSD 3.4
- FreeBSD 4.x
- Microsoft® Windows® NT 4.0, Windows 2000 and Windows XP
- Mac OSX

In addition, Zend provides unsupported builds of the Zend Optimizer for the following platforms:

- OpenBSD
- Solaris/x86 2.6 or later

This guide consists of the following main sections:

- [System Requirements](#)
- [Installation](#)
- [Avoiding Incompatibilities](#)
- [Support](#)

System Requirements

The Zend Optimizer has no special system requirements, except that a compatible version of PHP 4.x must be installed. For further information, see [Avoiding Incompatibilities](#) or review the [Product Compatibility Table](#).

Installation

It is recommended that after installing the Zend Optimizer, you make sure that the installation was successful (see [Checking for Successful Installation.](#))

The Zend Optimizer runs within the framework of PHP. It optimizes your PHP scripts automatically, and transparently detects and loads encoded files.

UNIX (Linux, Solaris, FreeBSD) & Mac OSX

To install the Zend Optimizer under UNIX or Mac OSX

1. Execute the following command and follow the instructions:

```
./install.sh
```

Note	Be sure to download the Zend Optimizer version that corresponds with the platform you use.
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2. If you are running under Apache, restart your Apache Web server. For Apache V1.3, use the commands:

```
apachectl stop; apachectl start
```

OpenBSD, Solaris/x86

To install the Zend Optimizer under these platforms

1. Unzip the package file by running the command

```
gunzip -c <package name> | tar xvf -
```
2. The unzipped files is placed in a directory with the same name as the package but without the `.tar.gz` suffix.

Copy the `ZendOptimizer.so` file to your system. It is suggested to copy into the directory `/usr/local/Zend/lib`.

3. Add the following lines to your `php.ini` file (preferably into `/usr/local/lib`). Do not add any extra spaces or tabs:

```
zend_optimizer.optimization_level=15  
zend_extension="/usr/local/Zend/lib/ZendOptimizer.so"
```

Note	If you do not plan on executing encoded files, disable the Optimizer's loading feature by adding <code>zend_optimizer.enable_loader = 0</code> to your <code>php.ini</code> . This will accelerate file execution even further.
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- Restart your Web server.
If you are running under Apache V1.3, use the commands *apachectl stop; apachectl start*.

Windows

To install the Zend Optimizer under Windows

- To ensure that your PHP installation is compatible with the Zend Optimizer, it is recommended to use the Windows packages posted in the [Zend Store](#) which are compiled in non-debug mode. The Zend Optimizer works only with non-debug PHP binaries.
- The Zend Optimizer for Windows package is a self-extracting installer. Simply run the package file, and follow the installation instructions.
- If you are running a server module (e.g. ISAPI), restart your server. For Microsoft IIS, run *net stop iisadmin*, and then *net start w3svc*, from a command line console.

Checking for Successful Installation

Use the PHP function `phpinfo()` to verify a successful installation, as shown in the following script:

```
<?php
    phpinfo();
?>
```

The part of the output where the Zend Optimizer is listed looks similar to this:

This program makes use of the Zend scripting language engine:

Zend Engine vX.Y.Z, copyright (c) 1998-2002, Zend Technologies Ltd.,
with the Zend Optimizer vX.Y.Z, copyright (c) 1998-2002 Zend Technologies Ltd.

Avoiding Incompatibilities

This section discusses two possible incompatibilities that should be avoided when using the Zend Optimizer.

Incompatibility with PHP Version

The Zend Optimizer must be compatible with the PHP 4 version installed. An incompatibility causes the Zend Optimizer to fail with an error message. (See message in the Web server log file).

Incompatibility with Zend Intermediate Code File

The Zend Intermediate Code file must be compiled by a version of the Zend Encoder (`zendenc`) that is compatible with the same version as the Zend Optimizer running the file. Otherwise, the Optimizer will fail with an error message. (See message in the log file) To check whether the Optimizer and the Encoder are compatible, refer to the [Zend Products Compatibility table](#).

When upgrading the Zend Encoder, it is highly recommended to install the Zend Optimizer most recent version, which can be downloaded from the [Zend Store](#).

Support

For further information on the Zend Optimizer, visit the online [Optimizer forum](#).

Zend SOS subscribers can also submit support questions through Zend [Support-Online Services \(SOS\)](#). To do so, go to the Pickup Depot, fill in our convenient form, and submit. Our worldwide team of experts will respond promptly. Track the status of your incident anytime through [Zend SOS](#).

For issues other than technical support, email us at info@zend.com.