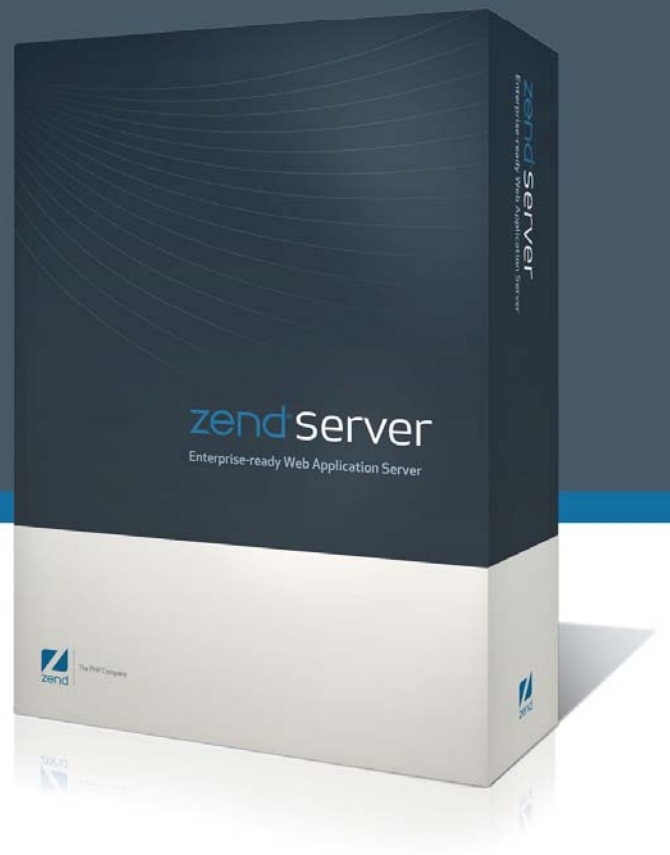




The PHP Company

# Zend Server Community Edition 4.0 Installation Guide

By Zend Technologies



This is the Installation Guide for Zend Server Community Edition, Version 4.0.

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# Zend Server Community Edition

The following instructions describe how to obtain and install Zend Server Community Edition. A summary of the procedure follows and later sections provide the details.

If you plan to upgrade an existing version of Zend Server Community Edition to a newer version rather than install Zend Server Community Edition for the first time, see the section on "[Upgrading Zend Server Community Edition](#)" for information about upgrade procedures and about issues that you should consider before upgrading.

## Installing for the First Time

To determine if Zend Server Community Edition is supported on your platform of choice see the list in [Choosing Which Distribution to Install](#)".

Please note that not all platforms are equally suitable for running Zend Server Community Edition.

## Installation Directories

Not all users decide to install their software in the same location. To reflect this requirement, all paths in this document have been replaced with the following prefix: <install\_path>. This represents the location of the installed files. If you used the default settings, the location should be as follows:

- Windows: C:\Program Files\Zend\ZendServer
- Windows 64 bit C:\Program Files (x86)\Zend\ZendServer
- DEB/RPM: /usr/local/zend
- Tarball: /usr/local/zend
- Mac: /usr/local/zend

# Choosing Which Distribution to Install

Zend Server Community Edition is available, in several distribution formats. You can choose from the pre-packaged distribution called [Tarball](#) or install using a Package Manager (RPM and DEB). When in doubt, use the [Tarball](#) distribution.

**The distributions for the following product versions are:**

1. [DEB](#) and [RPM](#) - Those wanting to use the DEB and RPM should define the Zend Server Community Edition repository (see the DEB and RPM sections for how to define the repository).
2. [Windows](#) - Download the package from zend.com.

**Zend Server Community Edition Includes the following additional installation options:**

1. [Tarball](#) - Download the package from zend.com
2. [DMG](#) - For Mac OSX Download the package from zend.com.

Choose the most suitable type of installation according to your operating system by selecting it from the table below.

If your Operating System does not appear in the list below, click here to be directed to the [Tarball Installation](#) . If you are unable to complete the installation, please refer to our Best Practices to see if these were already handled. Only if there is no article on the subject please see the [Zend Support Center](#) for further assistance.

## Supported Operating Systems

Package Name	Operating System	Installation Type
Linux	RHEL 5	<a href="#">RPM</a>
	CentOS 5	<a href="#">RPM</a>
	SUSE 10	<a href="#">Tarball</a>
	Debian and Ubuntu	<a href="#">DEB</a>
	Fedora 7/8/9/10	<a href="#">RPM</a>
	Oracle Enterprise Linux	<a href="#">RPM</a>
Mac	Mac OSX 10.4/10.5	<a href="#">DMG</a>
Windows x86 - 32	Windows XP Professional	<a href="#">EXE</a>
	Windows Server 2003	<a href="#">EXE</a>
	Windows Server 2008	<a href="#">EXE</a>
	Windows Vista*	<a href="#">EXE</a>
Windows x86 - 64	Windows Vista*	<a href="#">EXE</a>
	windows Server 2003	<a href="#">EXE</a>
	Windows Server 2008	<a href="#">EXE</a>
	Windows XP Professional	<a href="#">EXE</a>

\*All flavors except Home Basic

# Tarball Installation

The Tarball installation is a generic Linux Tarball installation that includes Zend Server Community Edition , Apache 2.2, and The latest available version of PHP - PHP 5.2 or PHP 5.3. This method is suitable for all machines, specifically older versions and homegrown Linux-based operating systems that are not specified in the list of supported operating systems.

**Requirement:** GLIBC >= 2.3.

## Note:

This package includes the Java Bridge component. This component requires Sun Microsystems JRE 1.4 (or later) installed on your computer. Therefore, if you do not already have JRE installed, install it before using the Java Bridge. More information about JREs and the latest updates can be found on the Sun Microsystem website: <http://java.sun.com> or [http://java.com/en/download/linux\\_manual.jsp](http://java.com/en/download/linux_manual.jsp).

## Installing Zend Server Community Edition

This procedure describes how to install Zend Server Community Edition using the general Tarball installation.



### To install Zend Server Community Edition :

1. Extract by running the command:

```
tar -xzf <package name>
```

2. CD (change the directory) to the extracted directory and run the installer with the command

```
./<Package_Name>/install.sh
```

3. Specify the prefix (/usr/local/by default): A new directory called zend is created under it (making the path using the default location: <install\_path>).

After installing, a completion notification appears, informing you about the installation and what to do next. You can access the (Web) Administration Interface from:

<https://localhost:10082/ZendServer>. Upon initial login, you are prompted to define your password.



## Post Installation Configuration

If you intend to use PHP and other tools provided by Zend Server (pear and pecl) from the command line, it is recommended that you add the `<install_path>/bin` directory to your `$PATH` environment variable.

This can be done in two ways:

- Per user profile
- For all users

The following instructions are intended for use with *bash*. If you are using a different shell, adjust the procedure accordingly.



### To add the `<install_path>/bin` directory to your `$PATH` environment variable per user profile:

1. Using a text editor, open `.bashrc` (located in your home directory).
2. Add the following lines to the end of the file:

```
PATH=$PATH:<install_path>/bin
LD_LIBRARY_PATH=$LD_LIBRARY_PATH:<install_path>/lib
```

Replace `<install_path>` with your Zend Server installation path.

3. Save the file.
4. In order for this to take effect, close and reopen your shell or run the following command:

```
source ~/.bashrc
```

You can now run the PHP binary provided by Zend Server without typing its full path.



### To add the `<install_path>/bin` directory to your `$PATH` environment variable for all users:

1. Log in as root or use `sudo` to execute the following commands.
2. Using a text editor, open `/etc/profile`.
3. Add the following lines to the end of the file:

```
PATH=$PATH:<install_path>/bin
LD_LIBRARY_PATH=$LD_LIBRARY_PATH:<install_path>/lib
```

Replace `<install_path>` with your Zend Server installation path.

4. Save the file.
5. In order for this to take effect, close and reopen your shell or run the following command:

```
source /etc/profile
```

You can now run the PHP binary provided by Zend Server without typing its full path.

## Uninstalling Zend Server Community Edition

The following instructions describe how to uninstall the Tarball package:



### To completely uninstall:

```
# <install_path>/bin/zendctl.sh stop
```

Ensure all daemons are stopped by running:

```
# <install_path>/bin/zendctl.sh status
```

```
# rm -rf <install_path>
```

## DEB Installation

This method uses "aptitude" to handle the installations, upgrades and additional packages.

Alternatively, you may choose any other tool that supports the DEB packaging format (i.e., Synaptic, Kpackage, etc).

This method downloads files from the Internet and therefore requires that you have an active Internet connection, access to your distribution's repositories and root privileges for the server.

### Note:

This procedure requires root privileges.

To acquire root privileges in Ubuntu, run the following command and type your password:

```
$ sudo -s.
```

## Manually Installing Zend Server Community Edition

To install Zend Server Community Edition , the first thing you have to do is to setup the repository for downloading the Zend Server Community Edition package.



### To setup the environment:

1. Define a repository by opening the following file: `/etc/apt/sources.list` and adding the line:

```
deb http://repos.zend.com/zend-server/deb
```

3. Add Zend's repository public key by running:

```
# wget http://repos.zend.com/deb/zend.key -O- | apt-key add -
```

If you are using `sudo` to run each command the next command requires using `sudo` following the `|` (pipe) symbol as follows:

```
# wget http://repos.zend.com/deb/zend.key -O- | sudo apt-key add -
```

4. To synchronize with Zend's repository run:

```
# aptitude update
```

Now you can use "aptitude" to handle the installations, upgrades and additional packages.



**To install:**

1. Once the repository is set up, run the appropriate command according to the product version and PHP support you require:

To install **Zend Server Community Edition** with **PHP 5.2** run:

```
# aptitude install zend-server-ce-php-5.2
```

To install **Zend Server Community Edition** with **PHP 5.3** run:

```
# aptitude install zend-server-ce-php-5.3
```

2. Each package locates and downloads all relevant packages from the web.

The actual installation will require your conformation.

After installing, a completion notification will appear, with a notice that the servers have started.

To access the Administration Interface (Web) open your browser at:

<https://localhost:10082/ZendServer> (secure) or <http://localhost:10081/ZendServer>.

Upon initial log in, you will be prompted to define your password.

## Automatically Installing Zend Server Community Edition

The following procedure describes how to run a script that will automatically create your DEB or RPM repositories and install Zend Server.



1. Download the package called "Linux x86 Installer (RPM/DEB Setup Script)" from zend.com - <http://www.zend.com/products/server/downloads-all>
2. Locate and extract the package:  
ZendServer-X.X.X-RepositoryInstaller-linux.tar.gz
3. To change to the directory with the installer scripts run:  
`cd <Install_Path>/ZendServer-RepositoryInstaller-linux/`
4. Depending on the PHP version, you want to use, run one of the following commands:
  - For Zend Server Community Edition with PHP 5.2 Support run:  
`install_zs.sh 5.2 ce`
  - For Zend Server Community Edition with PHP 5.3 Support run:  
`install_zs.sh 5.3 ce`

After installing, a completion notification will appear, with a notice that the servers have started.

To access the Administration Interface (Web) open your browser at:

<https://localhost:10082/ZendServer> (secure) or <http://localhost:10081/ZendServer>.

Upon initial log in, you will be prompted to define your password.

## Additional Packages

There are additional packages that can be added after installing Zend Server Community Edition, using '**aptitude install**':

Description	PHP 5.2	PHP 5.3
Additional PHP extensions	php-5.2-extra-extensions-zend-server	php-5.3-extra-extensions-zend-server
Java bridge package (Requires Sun's JRE 1.4 or later installed on your computer. Therefore, if you do not already have JRE installed please install it before using the Java Bridge. More information about JRE's and the latest updates are found in the SUN Website: <a href="http://java.sun.com">http://java.sun.com</a> or in <a href="http://wiki.debian.org/Java">http://wiki.debian.org/Java</a> ).	java-bridge-zend-server	java-bridge-zend-server
The Zend Guard Loader for running PHP, encoded with Zend Guard.	php-5.2-loader-zend-server	Not Supplied
A phpMyadmin meta package that installs phpMyAdmin and attaches it to the Administration Interface via a link from the Dashboard.	phpmyadmin-zend-server	phpmyadmin-zend-server
Zend Framework's bundled Dojo.	zend-server-framework-doj	zend-server-framework-doj
Zend Framework's extra components.	zend-server-framework-extras	zend-server-framework-extras
Full PHP sources, patched by Zend	php-5.2-source-zend-server	php-5.3-source-zend-server
Zend's development package includes PHP headers, libraries and PECL. PECL enables you to retrieve and auto-compile PHP extensions. For more information about PECL see, <a href="#">Using PECL</a> .	Installed by default	Installed by default
<b>The following extensions require the IBM DB2 runtime client (RTCL):</b>		
PHP extension that enables access to the IBM DB2 Universal Database, IBM Cloudscape and Apache Derby databases.	php-5.2-ibmdb2-zend-server	php-5.3-ibmdb2-zend-server
PHP pdo_ibm extension.	php-5.2-pdo-ibm-zend-server	php-5.3-pdo-ibm-zend-server
Zend Server Control Panel	control-panel-zend-server	control-panel-zend-server

You can download and install IBM's Runtime Client libraries from <ftp://ftp.software.ibm.com/software/data/db2/express/>

## Post Installation Configuration

If you intend to use PHP and other tools provided by Zend Server (pear and pecl) from the command line, it is recommended that you add the `<install_path>/bin` directory to your `$PATH` environment variable.

This can be done in two ways:

- Per user profile
- For all users

The following instructions are intended for use with *bash*. If you are using a different shell, adjust the procedure accordingly.



### To add the `<install_path>/bin` directory to your `$PATH` environment variable per user profile:

1. Using a text editor, open `.bashrc` (located in your home directory).
2. Add the following lines to the end of the file:

```
PATH=$PATH:<install_path>/bin
LD_LIBRARY_PATH=$LD_LIBRARY_PATH:<install_path>/lib
```

Replace `<install_path>` with your Zend Server installation path.

3. Save the file.
4. In order for this to take effect, close and reopen your shell or run the following command:

```
source ~/.bashrc
```

You can now run the PHP binary provided by Zend Server without typing its full path.



### To add the `<install_path>/bin` directory to your `$PATH` environment variable for all users:

1. Log in as root or use `sudo` to execute the following commands.
2. Using a text editor, open `/etc/profile`.
3. Add the following lines to the end of the file:

```
PATH=$PATH:<install_path>/bin
LD_LIBRARY_PATH=$LD_LIBRARY_PATH:<install_path>/lib
```

Replace `<install_path>` with your Zend Server installation path.

4. Save the file.
5. In order for this to take effect, close and reopen your shell or run the following command:

```
source /etc/profile
```

You can now run the PHP binary provided by Zend Server without typing its full path.

## Upgrading Zend Server Community Edition

The following instructions describe how to upgrade Zend Server Community Edition using '*aptitude*'.



To perform these actions you must have root privileges.



**To upgrade, run:**

```
# aptitude update  
# aptitude upgrade
```

The upgrade process locates any components of the product version that are newer and downloads them.

## Uninstalling Zend Server Community Edition

The following instructions describe how to delete or uninstall using '*aptitude*'.



To perform these actions you must have root privileges.



**To uninstall Zend Server Community Edition (leaving the configuration files in place) run:**

```
# aptitude remove '~nzend.* '
```

**To delete Zend Server Community Edition from the system with no traces left run:**

```
# aptitude purge '~nzend.* '
```

## RPM Installation

This method uses "yum" to handle all installations, upgrades and additional packages.

Alternatively, you may choose any other tool that supports the RPM packaging format (e.g. Kpackage, etc).

This method downloads files from the Internet and therefore requires that you have an active Internet connection, access to your distribution's repositories and root privileges for the server.

### **PHP Note:**

The Zend Server installation package will replace your distribution's PHP - this may create conflicts between RPM packages. If you cannot install one of Zend Server's components, it is recommended that you remove your distribution's PHP packages and try to install again.

### **SELinux Note:**

SELinux users must change their system settings to permissive mode before starting the Zend Server Community Edition installation procedure, by executing the following command:

```
# setenforce permissive
```



## Manually Installing Zend Server Community Edition

To install Zend Server Community Edition, the first thing you have to do is to setup the repository for downloading the Zend Server Community Edition package.



### To setup the environment:

Set up your Zend Server Community Edition repository by creating:

`/etc/yum.repos.d/zend.repo` and adding the following content:

```
[Zend Server]
name=Zend Server $releasever - $basearch
baseurl=http://repos.zend.com/zend-server/rpm/$basearch/
enabled=1
gpgcheck=0

[Zend -noarch]
name=Zend Server - noarch
baseurl=http://repos.zend.com/zend-server/rpm/noarch
enabled=1
gpgcheck=0
```

Now you can use 'yum' to handle installations or any other tool that supports the RPM packaging format.

### To install:



1. Once the environment is setup, run the appropriate command according to the product version and PHP support you require:

To install **Zend Server Community Edition** with **PHP 5.2** run:

```
# yum install zend-server-ce-php-5.2
```

To install **Zend Server Community Edition** with **PHP 5.3** run:

```
# yum install zend-server-ce-php-5.3
```

2. To clean your packages cache and ensure retrieval of updates from the web, run:

```
yum clean all
```

After installing, a completion notification will appear, with a notice that the servers have started.

To access the Administration Interface (Web) open your browser at:

<https://localhost:10082/ZendServer> (secure) or <http://localhost:10081/ZendServer>.

Upon initial log in, you will be prompted to define your password.

## Automatically Installing Zend Server Community Edition

The following procedure describes how to run a script that will automatically create your DEB or RPM repositories and install Zend Server.



1. Download the package called "Linux x86 Installer (RPM/DEB Setup Script)" from zend.com - <http://www.zend.com/products/server/downloads-all>
2. Locate and extract the package:  
`ZendServer-X.X.X-RepositoryInstaller-linux.tar.gz`
3. To change to the directory with the installer scripts run:  
`cd <Install_Path>/ZendServer-RepositoryInstaller-linux/`
4. Depending on the PHP version, you want to use, run one of the following commands:
  - For Zend Server Community Edition with PHP 5.2 Support run:  
`install_zs.sh 5.2 ce`
  - For Zend Server Community Edition with PHP 5.3 Support run:  
`install_zs.sh 5.3 ce`

After installing, a completion notification will appear, with a notice that the servers have started.

To access the Administration Interface (Web) open your browser at:

`https://localhost:10082/ZendServer` (secure) or `http://localhost:10081/ZendServer`.

Upon initial log in, you will be prompted to define your password.

## Additional Packages

There are additional packages that can be added after installing Zend Server Community Edition, using, `yum install`:

Description	PHP 5.2	PHP 5.3
Additional PHP extensions	php-5.2-extra-extensions-zend-server	php-5.3-extra-extensions-zend-server
Java bridge package (Requires Sun's JRE 1.4 or later installed on your computer. Therefore, if you do not already have JRE installed please install it before using the Java Bridge. More information about JRE's and the latest updates are found in the SUN Website: <a href="http://java.sun.com">http://java.sun.com</a> or in <a href="http://wiki.debian.org/Java">http://wiki.debian.org/Java</a> ).	php-5.2-java-bridge-zend-server	php-5.3-java-bridge-zend-server
The Zend Guard Loader for running PHP, encoded with Zend Guard.	php-5.2-loader-zend-server	Not Supplied
A phpMyadmin meta package that installs phpMyAdmin and attaches it to the Administration Interface via a link from the Dashboard.	phpmyadmin-zend-server-php-5.2	phpmyadmin-zend-server-php-5.3
Zend Framework's bundled Dojo.	zend-server-framework-dojo	zend-server-framework-dojo
Zend Framework's extra components.	zend-server-framework-extras	zend-server-framework-extras
Full PHP sources, patched by Zend	php-5.2-source-zend-server	php-5.3-source-zend-server
Zend's development package includes PHP headers, libraries and PECL. PECL enables you to retrieve and auto-compile PHP extensions. For more information about PECL see, <a href="#">Using PECL</a> .	Installed by default	Installed by default
<b>The following extensions require the IBM DB2 runtime client (RTCL):</b>		
PHP extension that enables access to the IBM DB2 Universal Database, IBM Cloudscape and Apache Derby databases.	php-5.2-ibmdb2-zend-server	php-5.3-ibmdb2-zend-server
PHP pdo_ibm extension.	php-5.2-pdo-ibm-zend-server	php-5.3-pdo-ibm-zend-server
Informix client	php-5.2-pdo-informix-zend-server	php-5.3-pdo-informix-zend-server
Zend Server Control Panel	control-panel-zend-server	control-panel-zend-server

You can download and install IBM's Runtime Client libraries from <ftp://ftp.software.ibm.com/software/data/db2/express/>

**CentOS and RHEL4 and 5 Note:**

The `phpmyadmin-zend-ce` package depends on the availability of `phpMyAdmin` from your distribution's repositories. The default CentOS repositories for example do not offer `phpMyAdmin` and therefore require that you manually add the *rpmforge* repositories to your *yum* repositories list. For information on how to do this for CentOS see: <http://wiki.centos.org/AdditionalResources/Repositories/RPMForge>

## Post Installation Configuration

If you intend to use PHP and other tools provided by Zend Server (pear and pecl) from the command line, it is recommended that you add the <install\_path>/bin directory to your \$PATH environment variable.

This can be done in two ways:

- Per user profile
- For all users

The following instructions are intended for use with *bash*. If you are using a different shell, adjust the procedure accordingly.



### To add the <install\_path>/bin directory to your \$PATH environment variable per user profile:

1. Using a text editor, open .bashrc (located in your home directory).
2. Add the following lines to the end of the file:

```
PATH=$PATH:<install_path>/bin
LD_LIBRARY_PATH=$LD_LIBRARY_PATH:<install_path>/lib
```

Replace <install\_path> with your Zend Server installation path.

3. Save the file.
4. In order for this to take effect, close and reopen your shell or run the following command:

```
source ~/.bashrc
```

You can now run the PHP binary provided by Zend Server without typing its full path.



### To add the <install\_path>/bin directory to your \$PATH environment variable for all users:

1. Log in as root or use sudo to execute the following commands.
2. Using a text editor, open /etc/profile.
3. Add the following lines to the end of the file:

```
PATH=$PATH:<install_path>/bin
LD_LIBRARY_PATH=$LD_LIBRARY_PATH:<install_path>/lib
```

Replace <install\_path> with your Zend Server installation path.

4. Save the file.
5. In order for this to take effect, close and reopen your shell or run the following command:

```
source /etc/profile
```

You can now run the PHP binary provided by Zend Server without typing its full path.

## Upgrading Zend Server Community Edition

The following instructions describe how to upgrade Zend Server Community Edition using 'yum'.

### RPM Upgrade Note:

After upgrading from the Community Edition to Zend Server, you will need to manually start your server by running the command: `<install_path>/bin/zendctl.sh start`.



To perform these actions you must have root privileges.



### To upgrade, run:

To upgrade all Zend related packages run the following command according to the package you have installed:

To upgrade **Zend Server Community Edition** with **PHP 5.2** run:

```
# yum update zend-server-ce-php-5.2
```

To upgrade **Zend Server Community Edition** with **PHP 5.3** run:

```
# yum update zend-server-ce-php-5.3
```

To update any and all files in your system that are managed by 'yum' (not just Zend products) run:

```
# yum update
```

To update a specific component (in this example it is php-mcrypt) run the following command according to the package you have installed:

To upgrade **Zend Server Community Edition** with **PHP 5.2** run:

```
# yum update php-mcrypt-zend-server-ce-php-5.2
```

To upgrade **Zend Server Community Edition** with **PHP 5.3** run:

```
# yum update php-mcrypt-zend-server-ce-php-5.3
```

The upgrade process locates any components of the product version that are newer and downloads them.

## Uninstalling Zend Server Community Edition

The following instructions describe how to uninstall Zend Server Community Edition:



**To uninstall run:**

```
zendctl.sh stop
```

And then run the following command according to the package you have installed:

To uninstall **Zend Server Community Edition** with **PHP 5.2** run:

```
# yum -y remove zend-server-ce-php-5.2 && yum -y remove `rpm -qa|grep zend|xargs`
```

To uninstall **Zend Server Community Edition** with **PHP 5.3** run:

```
# yum -y remove zend-server-ce-php-5.3 && yum -y remove `rpm -qa|grep zend|xargs`
```

This will stop the Zend Server Community Edition daemons and remove the program, including any additional packages that were installed.

When uninstalling, the configuration files are not removed. They remain in the same location with an additional suffix: `.rpmsave` so that they can be reused in a newer installation. For example: a file called `example.ini` is renamed to `example.ini.rpmsave`, after you run the uninstall.

# Mac OS X Installation

This section describes the process for installing Zend Server Community Edition on Mac OS X from a .dmg disk image. The disk image contains a .pkg installer for Zend Server Community Edition (including MySQL and phpMyAdmin) and the Zend Controller App. which you may optionally install after installing Zend Server Community Edition .

## Note

If you are upgrading Zend Server Community Edition from an existing installation you must first perform the procedure described in "[Upgrading](#)".

## Requirements:

- Mac OS X 10.4 (Tiger) or 10.5 (Leopard) both on Intel
- An account with administrator privileges
- A minimum of 200 megabytes of available disk space is required to unpack and install Zend Server Community Edition.
- The Oracle extensions (oci8, pdo\_oci) and Oracle Instant Client library can only be installed on Mac OS X version 10.5 and above.



## Installing Zend Server Community Edition

The following procedure describes how to install Zend Server Community Edition on Mac OS X.



### To install Zend Server Community Edition :

1. After downloading the package, locate the downloaded file and double-click it to reveal the package file `ZendServer.pkg`. Double-click the package file to start the installation process.
2. Follow the instructions presented by the Installer. Pay attention to the Important Information presented during installation process.
3. If necessary, click "Change Install Location" to define a different location for installing Zend Server Community Edition .
4. Zend Server Community Edition is installed to `/usr/local/zend`. Additionally, `ZendServer.app` will be placed under `/Applications` through which you can access the Administration interface.

When you open the Administration Interface for the first time, you will be prompted to set your Zend Server Community Edition password.

This password is required for logging in to the Administration Interface every time you use Zend Server Community Edition. You should set the same password in the Zend Controller configuration when you launch it for the first time.

You can access your Apache's document root at `<install_path>/apache2/htdocs`. Apache is configured to run on port 10088 by default (accessible at <http://localhost:10088/>).

## Installing Zend Controller

The following procedure describes how to install Zend Controller.



### **To install Zend Controller:**

- To install Zend Controller, drag it from the disk image to /Applications.

After the installation, Zend Controller should be configured to access your Zend Server installation by setting your Zend Server password. You can access the Zend Controller configuration window by selecting Preferences from the Zend Controller menu.

## Post Installation Configuration

If you intend to use PHP and other tools provided by Zend Server (pear and pecl) from the command line, it is recommended that you add the `<install_path>/bin` directory to your `$PATH` environment variable.

This can be done in two ways:

- Per user profile
- For all users

The following instructions are intended for use with *bash*. If you are using a different shell, adjust the procedure accordingly.



### To add the `<install_path>/bin` directory to your `$PATH` environment variable per user profile:

1. Using a text editor, open `.bashrc` (located in your home directory).
2. Add the following lines to the end of the file:

```
PATH=$PATH:<install_path>/bin
LD_LIBRARY_PATH=$LD_LIBRARY_PATH:<install_path>/lib
```

Replace `<install_path>` with your Zend Server installation path.

3. Save the file.
4. In order for this to take effect, close and reopen your shell or run the following command:

```
source ~/.bashrc
```

You can now run the PHP binary provided by Zend Server without typing its full path.



### To add the `<install_path>/bin` directory to your `$PATH` environment variable for all users:

1. Log in as root or use `sudo` to execute the following commands.
2. Using a text editor, open `/etc/profile`.
3. Add the following lines to the end of the file:

```
PATH=$PATH:<install_path>/bin
LD_LIBRARY_PATH=$LD_LIBRARY_PATH:<install_path>/lib
```

Replace `<install_path>` with your Zend Server installation path.

4. Save the file.
5. In order for this to take effect, close and reopen your shell or run the following command:

```
source /etc/profile
```

You can now run the PHP binary provided by Zend Server without typing its full path.

## Uninstalling Zend Server Community Edition

You can uninstall Zend Server, by running `<install_path>/bin/uninstall.sh` from a terminal window.

The uninstall script will perform the following:

- Stop all Zend Server processes
- Delete all Zend Server installed files
- Remove the .app from /Applications
- Remove Zend users

# Windows Installation

This section describes the three available processes for installing Zend Server Community Edition on Windows: Either via a native Windows installer, an unattended Installation or a Silent Installation.

## Note

If you are upgrading Zend Server Community Edition from an existing installation older than Zend Server Community Edition Version 4.0 , you must first perform the procedure described in “Upgrading”.

### To run Zend Server Community Edition on Windows, you need the following:

- Generally, you should install Zend Server Community Edition on Windows using an account that has administrator rights. Otherwise, you may encounter problems with certain operations such as editing the PATH environment variable or accessing the Service Control Manager.
- Enough space on the hard drive to unpack and install (generally a minimum of 200 megabytes is recommended.)

Zend Server Community Edition for Windows is available in a binary distribution that contains a setup program .exe file. The .exe file installs everything you need to start using Zend Server immediately.

If you are encountering problems with Internet Explorer 7 running on Windows 2008 Server, see the following troubleshooting topic: [Windows: Internet Explorer Blocking Zend Server](#)

## IIS Note:

Zend Server Community Edition running with IIS does not provide URL rewrite capabilities. If you require such capabilities (for example, when using Zend Framework based applications that use the default MVC components) refer to the following troubleshooting article.

## Installing Zend Server Community Edition

### Installing with the Native Windows Installer

The following procedure describes how to install Zend Server Community Edition on Windows using a binary distribution.

#### Note:

Users of previous versions of Zend Server Community Edition need to shut down and remove their existing Zend Server Community Edition installations manually before installing Zend Server Community Edition . See Section [“Upgrading”](#), for more information on upgrading from a previous version.



#### To install Zend Server Community Edition :

1. After completing the download, double-click on the .exe file to start the installation process.
2. There are three installation types available: Typical, Full, and Custom.
  - The **Typical** installation type installs the most common options and is recommended for most users. The installed components are Zend Optimizer+, Zend Loader, Zend Debugger, Zend Cache, Zend Framework, Monitor and Page Cache and Oracle OCI Driver.
  - The **Full** installation type installs all components included in the installation package. The components are Zend Optimizer+, Zend Loader, Zend Debugger, Zend Cache, Java Server, Zend Framework, Oracle OCI Driver, phpMyAdmin, IBM DB2 RTCL , Monitor, Page Cache and MySQL. The full installation package requires an Internet connection while running the installation, to download online components.
  - The **Custom** installation type gives you complete control over which packages you wish to install and the installation path that is used. The components are Zend Optimizer+, Zend Loader, Zend Debugger, Zend Cache, Java Server, Zend Framework, Oracle OCI Driver, phpMyAdmin, IBM DB2 RTCL, Monitor, Page Cache and MySQL.
3. Click the **NEXT** button to advance to the Confirmation dialog.
4. If you choose the **Custom** installation type, click the **NEXT** button to advance to the “**Destination Location**” dialog.
5. Select a Web server on which to install the PHP and the Installation Location. Click the **NEXT** button to advance to the Select Features dialog.
6. Select the features to install by double-clicking the check box next to each

feature. A single click on a feature in the list displays a description for the feature. Click the **NEXT** button to advance to the “Administration Interface Password” screen and from there, to the Confirmation dialog.

#### 7. The Confirmation Dialog

Once you choose an installation type and choose your installation components, you advance to the confirmation dialog.

Your installation type and installation path are displayed for you to review.

8. To install Zend Server Community Edition (if you are satisfied with your settings), click the **INSTALL** button. To change your settings, click the **BACK** button.
9. To exit the Zend Server Community Edition Installation Wizard without installing Zend Server Community Edition, click the **CANCEL** button.

#### 10. The Custom Installation

The custom installation installs select components and provides an option to choose the Web server on which to install PHP. After confirming the installation, if the port number is already in use, you are asked to specify a different port number. The selected Web server is configured to the port specified after completing the installation.

A browser opens after the installation, to display the Administration Interface's login screen. Use the password you specified in the installation process to log in. If it was selected during the installation, a shortcut is added to your desktop, otherwise, bookmarking the page at this point will help you to easily locate the link.

### Installing Additional Components

While running the Installer in custom mode, you can choose not to install certain components. If at any time, you want to add them, save the installation file and re-run in Modify mode or, if you did not keep the Installer file, go to the Control Panel, click Add/Remove programs and select "change" to run the Installer.

## Unattended Installation

The following procedure describes how to use an Unattended installation to deploy Zend Server Community Edition on several machines.



### To install Zend Server Community Edition :

1. Download Zend Server Community Edition.
2. Open the command line from **Start | Run**.
3. Run the command `<Package_Name>.exe /r`.  
For example: `ZendServer-4.0.0RC50-Windows_x86.exe /r`
4. The Installer begins to run in record mode, which displays all the run-time dialog boxes and stores the data in a file called Setup.iss. This file is stored in the system's Windows folder.  
To specify an alternative response file name and location, use the **/f1** argument. Using the **/f1** argument allows you to specify where the response file is (or where it should be created) and what its name is, as in `Setup.exe /s /f1"C:\Temp\Setup.iss"`. The **/f1** switch is available both when creating a response file (with the **/r** option) and when using a response file (with the **/s** option).
5. Take the generated response file and either store it on a location in the network which will be available for all machines or copy the file to each of the machines on which you want to install Zend Server Community Edition.
6. Go to the new machine and run from the command line `Setup.exe /s /f1"C:\Temp\Setup.iss"`. This will run the Installer in `silent` mode, by default, based on the responses contained in the response file called Setup.iss. To specify an alternative file name or location of the response file, use the **/f1** argument (see step 4, above).



## Silent Installation

The following procedure describes how to install Zend Server Community Edition in Silent Mode. Silent Mode is when you install Zend Server Community Edition using all the default settings.

**Prerequisites:** IIS (any version), IIS is listening to port 80, free disk space (at least 180 MB) and preferably without a pre-installed PHP.



### To install Zend Server Community Edition:

1. Download Zend Server Community Edition.
2. Open the command line from **Start | Run**.
3. Run the following command:

```
<Package_Name>.exe /s /z"di" for example ZendServer-  
4.0.0RC50-Windows_x86.exe /s /z"di"
```

The Installer begins to run in the background and install Zend Server Community Edition using the default settings. If you want to view a progress bar, run the same command without the/s argument. For example, `ZendServer-4.0.0RC50-Windows_x86.exe /z"di"`.

## Installed Components

### Java Bridge

The Java Bridge is set to run by default and it requires that you have SUN Microsystems JRE 1.4 (or later) installed on your computer. Therefore, if you do not already have JRE installed, install it before using the Java Bridge. The Installer is set to detect your JVM: if you do not have one, the Installer prompts you to identify its location. Clicking **NO** continues the installation without the Java components. More information about JREs and the latest updates can be found on the Sun Microsystems website: <http://java.sun.com>.

### Locating Installed Components

Zend Server Community Edition installs to the directory: *<install\_path>\Zend Server*.

If you choose to install Apache from the Zend Server Community Edition installation, an additional folder containing your installed Apache is added to the installation path:

*<install\_path>\Zend Server*

*<install\_path>\Apache2.2*

If you choose to install phpMyAdmin from the Zend Server Community Edition installation, an additional folder containing phpMyAdmin is added to the installation path:

*<install\_path>\Zend Server*

*<install\_path>\phpMyAdmin*

## Start Menu Options

The Installation Wizard creates a new entry in the Windows START menu under a Zend Server Community Edition menu heading.

**The following entries are created within the new START menu section:**

- Change Password - deletes your current password. Clicking this option automatically deletes your password and opens a new password definition page.
- Help and Reference - Opens the online help in a browser
- Uninstall - Initiates the Wizard based uninstall process
- Zend Server Community Edition - Opens the Zend Server Community Edition Administration Interface
- Zend Control Panel - Opens the Zend Controller

## Uninstalling Zend Server Community Edition

The following instructions describe how to uninstall Zend Server Community Edition:



**To uninstall:**

1. Use the Windows Control Panel: **Start | Control Panel | Add or Remove Programs**.
2. In the **Add or Remove Programs** dialog, locate and click the Zend Server Community Edition package in the list.
3. Click "Remove".  
The Installer runs in uninstall mode.
4. Follow the instructions and click "Finish" to complete the uninstallation process.

This will stop the Zend Server Community Edition services and remove the program, including any additional packages that were installed.

# Zend Server CE PHP 5.2 Extensions

## Common Extensions

Common extensions are installed and enabled by default in typical installations

Extension	Linux (DEB/RPM)	Linux (tarball)	Mac OS X	Windows	Description
bcmath	Enabled	Enabled	Enabled	Enabled	Arbitrary precision mathematics functions based on the bcmath (Binary Calculator) library
bz2	Enabled	Enabled	Enabled	Enabled	The bz2 functions are used to transparently read and write bz2 (.bz2) compressed files and streams
calendar	Enabled	Enabled	Enabled	Enabled	The calendar extension provides functions that simplify conversion between different calendar formats
com_dotnet	Not Shipped	Not Shipped	Not Shipped	Built-in	Component Object Model - An interface to Microsoft's COM / .NET environment
ctype	Enabled	Enabled	Enabled	Built-in	Character Classifications - Checks whether a character or string falls into a certain character class according to the current locale
curl	Enabled	Enabled	Enabled	Enabled	Enables you to connect to and communicate with different types of servers using various protocols - for example HTTP and FTP
date	Built-in	Built-in	Built-in	Built-in	Enables various date and time related functions that can handle retrieving the time, date formatting and more
dom	Built-in	Built-in	Built-in	Built-in	Enables operating on an XML document using the Document Object Model (DOM) API
exif	Enabled	Enabled	Enabled	Enabled	Enables access to image EXIF (Exchangeable Image File Format) meta data

Extension	Linux (DEB/RPM)	Linux (tarball)	Mac OS X	Windows	Description
filter	Built-in	Built-in	Built-in	Built-in	Provides a set of functions for validating and filtering data coming from insecure sources, such as user inputs
ftp	Enabled	Enabled	Enabled	Enabled	Provides low-level client access to FTP (File Transfer Protocol) servers
gd	Enabled	Enabled	Enabled	Enabled	Enables creation, manipulation and streaming of images and graphics in various formats
gettext	Enabled	Enabled	Enabled	Enabled	Provides a set of functions that allow internationalization of PHP applications through the GNU gettext API
hash	Built-in	Built-in	Built-in	Built-in	Enables direct or incremental processing of arbitrary length messages using a variety of hashing algorithms
iconv	Built-in	Built-in	Built-in	Built-in	Enables conversion between different character sets using the iconv library
imap	Enabled	Enabled	Enabled	Enabled	Provides mail and news access through the IMAP, POP3 and NNTP protocols
intl	Enabled	Enabled	Enabled	Enabled	Provides Unicode and global localization support to PHP applications using the ICU library
json	Enabled	Enabled	Enabled	Enabled	Implements the JavaScript Object Notation (JSON) data-interchange format
ldap	Enabled	Enabled	Enabled	Enabled	Provides access to LDAP (Lightweight Directory Access Protocol) based directory servers; Based on the OpenLDAP library
libxml	Built-in	Built-in	Built-in	Built-in	Provides basic API and infrastructure for other XML processing extensions
mbstring	Enabled	Enabled	Enabled	Enabled	Enables manipulation of strings encoded in multi-byte character encoding schemes
mcrypt	Enabled	Enabled	Enabled	Enabled	Provides support for multiple encryption algorithms using the mcrypt library

Extension	Linux (DEB/RPM)	Linux (tarball)	Mac OS X	Windows	Description
mhash	Enabled	Enabled	Enabled	Enabled	Provides support for multiple hashing algorithms using the mhash library. Can be used to create checksums, message digests, message authentication codes, and more
mime_magic	Enabled	Enabled	Enabled	Enabled	Enables automatic MIME-type detection based on various patterns in files
mysql	Enabled	Enabled	Enabled	Enabled	Provides legacy access to MySQL database servers. For new applications it is recommended to use the 'mysqli' extension
mysqli	Enabled	Enabled	Enabled	Enabled	MySQL Improved - Provides access to MySQL database servers. Enables the functionality provided by MySQL 4.1 and above
oci8	Enabled	Enabled	Disabled	Enabled	Oracle Call Interface - Provides access to Oracle database servers, supporting many of the advanced features provided by Oracle servers
openssl	Built-in	Built-in	Built-in	Built-in	This module utilizes the OpenSSL library for generation and verification of signatures and for encrypting and decrypting data and streams
pcre	Built-in	Built-in	Built-in	Built-in	Provides a set of functions for string matching and manipulation based on Perl Compatible Regular Expressions syntax
pdo	Built-in	Built-in	Built-in	Built-in	Base PDO (PHP Data Objects) Driver - Defines a lightweight, consistent interface for accessing databases in PHP
pdo_mysql	Enabled	Enabled	Built-in	Enabled	PDO (PHP Data Objects) driver that enable access from PHP to MySQL database servers
pdo_oci	Enabled	Enabled	Disabled	Enabled	PDO (PHP Data Objects) driver that enable access from PHP to Oracle database servers using the OCI library

Extension	Linux (DEB/RPM)	Linux (tarball)	Mac OS X	Windows	Description
pdo_pgsql	Enabled	Enabled	Built-in	Enabled	PDO (PHP Data Objects) driver that enable access from PHP to PostgreSQL database servers
pdo_sqlite	Built-in	Built-in	Built-in	Built-in	PDO (PHP Data Objects) driver that enable access from PHP to SQLite database files
pgsql	Enabled	Enabled	Enabled	Enabled	Provides access to PostgreSQL database servers
posix	Enabled	Enabled	Enabled	Not Shipped	Contains an interface to functions defined in the IEEE 1003.1 (POSIX.1) standards document which are not accessible through other means
reflection	Built-in	Built-in	Built-in	Built-in	Adds the ability to reverse-engineer classes, interfaces, functions and methods as well as extensions
session	Built-in	Built-in	Built-in	Built-in	Enables data persistence between consecutive requests of the same user session
simplexml	Built-in	Built-in	Built-in	Built-in	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
soap	Enabled	Enabled	Enabled	Enabled	The SOAP extension can be used to implement SOAP Servers and Clients
sockets	Enabled	Enabled	Enabled	Enabled	The socket extension implements a set of low-level socket communication functions, providing the possibility to act as a socket server as well as a client
spl	Built-in	Built-in	Built-in	Built-in	SPL is a collection of interfaces and classes that can be used to solve standard problems
sqlite	Enabled	Enabled	Enabled	Enabled	Enables usage of the SQLite Embeddable SQL Database Engine. Can be used for SQL database access without running a separate RDBMS process
standard	Built-in	Built-in	Built-in	Built-in	Standard PHP functions

Extension	Linux (DEB/RPM)	Linux (tarball)	Mac OS X	Windows	Description
tidy	Enabled	Enabled	Enabled	Enabled	Tidy HTML Clean and Repair - enables you to not only clean and otherwise manipulate HTML documents, but also traverse the document tree
tokenizer	Enabled	Enabled	Enabled	Enabled	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
xml	Built-in	Built-in	Built-in	Built-in	Enables the creation of event-based XML document parsers using the SAX XML interface
xmlreader	Enabled	Enabled	Enabled	Enabled	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.
xmlwriter	Enabled	Enabled	Built-in	Enabled	Provides a non-cached, forward-only writer for generating streams or files containing XML data in an efficient manner
xsl	Enabled	Enabled	Enabled	Enabled	The XSL extension implements the XSL standard, performing XSLT transformations using the libxslt library
zip	Enabled	Enabled	Enabled	Enabled	ZIP Archives - Enables you to transparently read ZIP compressed archives and the files inside them
zlib	Built-in	Built-in	Built-in	Built-in	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

## Extra / Additional Extensions

Extra extensions are shipped by Zend and can easily be installed but are not installed by default in typical installations

Extension	Linux (DEB/RPM)	Linux (tarball)	Mac OS X	Windows	Description
fileinfo	Enabled	Disabled	Disabled	Not Shipped	Allows retrieval of information regarding many different file types. This information includes file type and encoding, as well as more specific information such as dimensions, quality or length
gmp	Enabled	Disabled	Disabled	Disabled	These functions allow you to work with arbitrary-length integers using the GNU MP library
imagick	Enabled	Disabled	Disabled	Disabled	Enables image creation and manipulation using the ImageMagick API
memcache	Enabled	Disabled	Disabled	Disabled	Provides access to memcached - a highly efficient memory based caching daemon
ming	Enabled	Disabled	Disabled	Disabled	Provides a set of functions that can be used to create SWF ("Flash") format animations; Based on the open-source Ming library
mssql	Enabled	Disabled	Disabled	Disabled	Provides access to MS SQL Server database; Based on the open-source FreeTDS library
odbc	Enabled	Disabled	Disabled	Disabled	Provides access to several database servers through the Unified ODBC interface
pcntl	Enabled	Disabled	Disabled	Not Shipped	Process Control Functions - Process Control support in PHP implements the Unix style of process creation, program execution, signal handling and process termination
pdo_dblib	Enabled	Disabled	Disabled	Not Shipped	PDO (PHP Data Objects) driver that enable access from PHP to MSSQL and other databases accessible through the FreeDTS interface



Extension	Linux (DEB/RPM)	Linux (tarball)	Mac OS X	Windows	Description
pdo_odb	Enabled	Disabled	Disabled	Disabled	PDO (PHP Data Objects) driver that enable access from PHP to different databases through ODBC drivers or through the IBM DB2 Call Level Interface (DB2 CLI) library
shmop	Enabled	Disabled	Disabled	Disabled	Shared Memory - Shmop is an easy-to-use set of functions that allows PHP to read, write, create and delete Unix shared memory segments
sysvmsg	Enabled	Disabled	Disabled	Not Shipped	Enables System V messages support - The messaging functions may be used to send and receive messages to/from other processes. They provide a simple and effective means of exchanging data between processes, without the need for setting up an alternative using Unix domain sockets
sysvsem	Enabled	Disabled	Disabled	Not Shipped	Enables System V semaphore support - 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
sysvshm	Enabled	Disabled	Disabled	Not Shipped	Enables System V shared memory support - Shared memory may be used to provide access to global variables
wddx	Enabled	Disabled	Disabled	Disabled	WDDX (Web Distributed Data Exchange) - These functions are intended for work with the WDDX data exchange format
xmlrpc	Enabled	Disabled	Disabled	Disabled	Provides a set of functions that can be used to write XML-RPC servers and clients

## Standalone Extensions

Standalone extensions are provided by Zend but are not included in any of the meta-packages / categories above.

Extension	Linux (DEB/RPM)	Linux (tarball)	Mac OS X	Windows	Description
ibm_db2	Enabled	Disabled	Not Shipped	Disabled	Provides functions that enable you to access the IBM DB2 Universal Database, IBM Cloudscape, and Apache Derby databases using the DB2 Call Level Interface
pdo_ibm	Enabled	Disabled	Not Shipped	Disabled	PDO (PHP Data Objects) driver that enable access from PHP to IBM databases
pdo_informix	Enabled	Not Shipped	Not Shipped	Disabled	PDO (PHP Data Objects) driver that enable access from PHP to Informix database servers
sqlsrv	Not Shipped	Not Shipped	Not Shipped	Disabled	Provides access to Microsoft SQL Server 2005 database servers. Developed by Microsoft

# Zend Server CE PHP 5.3 Extensions

## Common Extensions

Common extensions are installed and enabled by default in typical installations

Extension	Linux (DEB/RPM)	Linux (tarball)	Mac OS X	Windows	Description
bcmath	Enabled	Enabled	Enabled	Enabled	Arbitrary precision mathematics functions based on the bcmath (Binary Calculator) library
bz2	Enabled	Enabled	Enabled	Enabled	The bz2 functions are used to transparently read and write bz2 (.bz2) compressed files and streams
calendar	Enabled	Enabled	Enabled	Enabled	The calendar extension provides functions that simplify conversion between different calendar formats
cgi-fcgi	Not Shipped	Not Shipped	Not Shipped	Built-in	PHP CGI/FastCGI Server API
com_dotnet	Not Shipped	Not Shipped	Not Shipped	Built-in	Component Object Model - An interface to Microsoft's COM / .NET environment
Core	Built-in	Built-in	Built-in	Built-in	Core PHP functionality
ctype	Enabled	Enabled	Enabled	Built-in	Character Classifications - Checks whether a character or string falls into a certain character class according to the current locale
curl	Enabled	Enabled	Enabled	Enabled	Enables you to connect to and communicate with different types of servers using various protocols - for example HTTP and FTP
date	Built-in	Built-in	Built-in	Built-in	Enables various date and time related functions that can handle retrieving the time, date formatting and more
dom	Built-in	Built-in	Built-in	Built-in	Enables operating on an XML document using the Document Object Model (DOM) API

Extension	Linux (DEB/RPM)	Linux (tarball)	Mac OS X	Windows	Description
ereg	Built-in	Built-in	Built-in	Built-in	Provides a set of string pattern matching functions using POSIX extended regular expressions.
exif	Enabled	Enabled	Enabled	Enabled	Enables access to image EXIF (Exchangeable Image File Format) meta data
fileinfo	Enabled	Enabled	Enabled	Enabled	Allows retrieval of information regarding many different file types. This information includes file type and encoding, as well as more specific information such as dimensions, quality or length
filter	Built-in	Built-in	Built-in	Built-in	Provides a set of functions for validating and filtering data coming from insecure sources, such as user inputs
ftp	Enabled	Enabled	Enabled	Enabled	Provides low-level client access to FTP (File Transfer Protocol) servers
gd	Enabled	Enabled	Enabled	Enabled	Enables creation, manipulation and streaming of images and graphics in various formats
gettext	Enabled	Enabled	Enabled	Enabled	Provides a set of functions that allow internationalization of PHP applications through the GNU gettext API
hash	Built-in	Built-in	Built-in	Built-in	Enables direct or incremental processing of arbitrary length messages using a variety of hashing algorithms
iconv	Built-in	Built-in	Built-in	Built-in	Enables conversion between different character sets using the iconv library
imap	Enabled	Enabled	Enabled	Enabled	Provides mail and news access through the IMAP, POP3 and NNTP protocols
intl	Enabled	Enabled	Enabled	Enabled	Provides Unicode and global localization support to PHP applications using the ICU library
json	Enabled	Enabled	Enabled	Enabled	Implements the JavaScript Object Notation (JSON) data-interchange format

Extension	Linux (DEB/RPM)	Linux (tarball)	Mac OS X	Windows	Description
ldap	Enabled	Enabled	Enabled	Enabled	Provides access to LDAP (Lightweight Directory Access Protocol) based directory servers; Based on the OpenLDAP library
libxml	Built-in	Built-in	Built-in	Built-in	Provides basic API and infrastructure for other XML processing extensions
mbstring	Enabled	Enabled	Enabled	Enabled	Enables manipulation of strings encoded in multi-byte character encoding schemes
mcrypt	Enabled	Enabled	Enabled	Enabled	Provides support for multiple encryption algorithms using the mcrypt library
mysql	Enabled	Enabled	Enabled	Enabled	Provides legacy access to MySQL database servers. For new applications it is recommended to use the 'mysqli' extension
mysqli	Enabled	Enabled	Enabled	Enabled	MySQL Improved - Provides access to MySQL database servers. Enables the functionality provided by MySQL 4.1 and above
oci8	Enabled	Enabled	Disabled	Enabled	Oracle Call Interface - Provides access to Oracle database servers, supporting many of the advanced features provided by Oracle servers
openssl	Built-in	Built-in	Built-in	Built-in	This module utilizes the OpenSSL library for generation and verification of signatures and for encrypting and decrypting data and streams
pcre	Built-in	Built-in	Built-in	Built-in	Provides a set of functions for string matching and manipulation based on Perl Compatible Regular Expressions syntax
pdo	Built-in	Built-in	Built-in	Built-in	Base PDO (PHP Data Objects) Driver - Defines a lightweight, consistent interface for accessing databases in PHP
pdo_mysql	Enabled	Enabled	Built-in	Enabled	PDO (PHP Data Objects) driver that enable access from PHP to MySQL database servers

Extension	Linux (DEB/RPM)	Linux (tarball)	Mac OS X	Windows	Description
pdo_oci	Enabled	Enabled	Disabled	Enabled	PDO (PHP Data Objects) driver that enable access from PHP to Oracle database servers using the OCI library
pdo_pgsql	Enabled	Enabled	Built-in	Enabled	PDO (PHP Data Objects) driver that enable access from PHP to PostgreSQL database servers
pdo_sqlite	Built-in	Built-in	Built-in	Built-in	PDO (PHP Data Objects) driver that enable access from PHP to SQLite database files
pgsql	Enabled	Enabled	Enabled	Enabled	Provides access to PostgreSQL database servers
phar	Enabled	Enabled	Enabled	Enabled	Allows running of complete PHP applications out of .phar package files
posix	Enabled	Enabled	Enabled	Not Shipped	Contains an interface to functions defined in the IEEE 1003.1 (POSIX.1) standards document which are not accessible through other means
reflection	Built-in	Built-in	Built-in	Built-in	Adds the ability to reverse-engineer classes, interfaces, functions and methods as well as extensions
session	Built-in	Built-in	Built-in	Built-in	Enables data persistence between consecutive requests of the same user session
simplexml	Built-in	Built-in	Built-in	Built-in	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
soap	Enabled	Enabled	Enabled	Enabled	The SOAP extension can be used to implement SOAP Servers and Clients
sockets	Enabled	Enabled	Enabled	Enabled	The socket extension implements a set of low-level socket communication functions, providing the possibility to act as a socket server as well as a client
spl	Built-in	Built-in	Built-in	Built-in	SPL is a collection of interfaces and classes that can be used to solve standard problems

Extension	Linux (DEB/RPM)	Linux (tarball)	Mac OS X	Windows	Description
sqlite	Enabled	Enabled	Enabled	Enabled	Enables usage of the SQLite Embeddable SQL Database Engine. Can be used for SQL database access without running a separate RDBMS process
standard	Built-in	Built-in	Built-in	Built-in	Standard PHP functions
tidy	Enabled	Enabled	Enabled	Enabled	Tidy HTML Clean and Repair - enables you to not only clean and otherwise manipulate HTML documents, but also traverse the document tree
tokenizer	Enabled	Enabled	Enabled	Enabled	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
xml	Built-in	Built-in	Built-in	Built-in	Enables the creation of event-based XML document parsers using the SAX XML interface
xmlreader	Enabled	Enabled	Enabled	Enabled	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.
xmlwriter	Enabled	Enabled	Built-in	Enabled	Provides a non-cached, forward-only writer for generating streams or files containing XML data in an efficient manner
xsl	Enabled	Enabled	Enabled	Enabled	The XSL extension implements the XSL standard, performing XSLT transformations using the libxslt library
zip	Enabled	Enabled	Enabled	Enabled	ZIP Archives - Enables you to transparently read ZIP compressed archives and the files inside them
zlib	Built-in	Built-in	Built-in	Built-in	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

## Extra / Additional Extensions

Extra extensions are shipped by Zend and can easily be installed but are not installed by default in typical installations

Extension	Linux (DEB/RPM)	Linux (tarball)	Mac OS X	Windows	Description
gmp	Enabled	Disabled	Disabled	Disabled	These functions allow you to work with arbitrary-length integers using the GNU MP library
imagick	Enabled	Disabled	Disabled	Disabled	Enables image creation and manipulation using the ImageMagick API
memcache	Enabled	Disabled	Disabled	Disabled	Provides access to memcached - a highly efficient memory based caching daemon
mssql	Enabled	Disabled	Disabled	Disabled	Provides access to MS SQL Server database; Based on the open-source FreeTDS library
odbc	Enabled	Disabled	Disabled	Disabled	Provides access to several database servers through the Unified ODBC interface
pcntl	Enabled	Disabled	Disabled	Not Shipped	Process Control Functions - Process Control support in PHP implements the Unix style of process creation, program execution, signal handling and process termination
pdo_dblib	Enabled	Disabled	Disabled	Not Shipped	PDO (PHP Data Objects) driver that enable access from PHP to MSSQL and other databases accessible through the FreeDTS interface
pdo_odbc	Enabled	Disabled	Disabled	Disabled	PDO (PHP Data Objects) driver that enable access from PHP to different databases through ODBC drivers or through the IBM DB2 Call Level Interface (DB2 CLI) library
shmop	Enabled	Disabled	Disabled	Disabled	Shared Memory - Shmop is an easy-to-use set of functions that allows PHP to read, write, create and delete Unix shared memory segments



Extension	Linux (DEB/RPM)	Linux (tarball)	Mac OS X	Windows	Description
sysvmsg	Enabled	Disabled	Disabled	Not Shipped	Enables System V messages support - The messaging functions may be used to send and receive messages to/from other processes. They provide a simple and effective means of exchanging data between processes, without the need for setting up an alternative using Unix domain sockets
sysvsem	Enabled	Disabled	Disabled	Not Shipped	Enables System V semaphore support - 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
sysvshm	Enabled	Disabled	Disabled	Not Shipped	Enables System V shared memory support - Shared memory may be used to provide access to global variables
wddx	Enabled	Disabled	Disabled	Disabled	WDDX (Web Distributed Data Exchange) - These functions are intended for work with the WDDX data exchange format
xmlrpc	Enabled	Disabled	Disabled	Disabled	Provides a set of functions that can be used to write XML-RPC servers and clients

## Standalone Extensions

Standalone extensions are provided by Zend but are not included in any of the meta-packages / categories above.

Extension	Linux (DEB/RPM)	Linux (tarball)	Mac OS X	Windows	Description
ibm_db2	Enabled	Disabled	Not Shipped	Disabled	Provides functions that enable you to access the IBM DB2 Universal Database, IBM Cloudscape, and Apache Derby databases using the DB2 Call Level Interface
pdo_ibm	Enabled	Disabled	Not Shipped	Disabled	PDO (PHP Data Objects) driver that enable access from PHP to IBM databases
pdo_informix	Enabled	Not Shipped	Not Shipped	Disabled	PDO (PHP Data Objects) driver that enable access from PHP to Informix database servers
sqlsrv	Not Shipped	Not Shipped	Not Shipped	Disabled	Provides access to Microsoft SQL Server 2005 database servers. Developed by Microsoft

# Parallel Installations

Parallel installations refer to installing and running two instances of Zend Server Community Edition on the same machine. A typical requirement for this type of installation is an environment that services two different sites on the same machine and requires different configurations.

The package combinations that can be installed in parallel are as follows:

1. Tarball + Tarball
2. RPM + Tarball
3. DEB + Tarball

Any other combination should not be used in parallel.

How to install two instances of Zend Server Community Edition on your machine:



1. For the first installation, use only a Tarball package and install to a non-default location (i.e., anything other than /usr/local/).
2. Change the Lighttpd and Java Bridge port settings to different available ports( i.e., any other free ports you have). To view a list of ports that are currently in use, run `netstat -plnt`.
  - The lighttpd ports are found in `<install_path>/gui/lighttpd/etc/lighttpd.conf`.  
Change the original SSL connection: **SERVER["socket"] == ":10082"**  
Change the original non-secure connection: **server.port= 10081**
  - The Java Bridge ports are found in `<install_path>/etc/watchdog-jb.ini`.  
Change the port settings: **Dzend.javamw.port=10001**
3. Restart the Zend Server Community Edition Daemon by running `<install_path>/bin/zendctl.sh restart`.
4. The second installation should follow the regular installation process. If you are going to use a combination of RPM + Tarball or DEB + Tarball, make sure to install the RPM or DEB first because those packages can only be installed in the default location.

You are now able to access two different instances of Zend Server Community Edition. To view the different Administration Interfaces, call the new port number in your browser.

## Notes:

There is no need to change the Web server (Apache for Linux), as the Tarball's Apache listens to port 10088 and the DEB/RPM Apache listens to port 80.

# Using PECL

**This is relevant only for Linux and Mac OS X**



[Not applicable for IBM i]

[PECL](#) is the online repository for PHP extensions. PECL includes a directory of known extensions, including many additional extensions that are not bundled with the default PHP distribution or with Zend Server Community Edition.

Zend Server Community Edition includes a command line tool, *pecl*, that automates the download, compilation and installation of additional extensions from PECL.

## Note:

The default Zend Server installation does not include the complete set of build tools that may be required to compile PHP extensions using *pecl*.

Make sure you have a C compiler (such as gcc) before using *pecl*.

## Installing Zend Server Community Edition Additional Extensions

The following commands will install additional extensions using *pecl*.



**To get a list of available extensions, run:**

```
# <install_path>/bin/pecl list-all
```

**To install an extension, run:**

```
# <install_path>/bin/pecl install $extension_name
```

## Note:

Make sure to verify that all required dependencies for compiling an extension are met.

For example, to compile the *newt* extension, you must ensure that the *ncurses* library is available on the same machine.

## Uninstalling Zend Server Community Edition Additional Extensions

The following commands will uninstall additional extensions using *pecl*.



**To remove an extension, run:**

```
# <install_path>/bin/pecl uninstall $extension_name
```

**To get a list of commands, run without arguments:**

```
# <install_path>/bin/pecl
```

# Registration

The first time Zend Server runs, the Password and License page is displayed.

This page is also displayed when your license expires or when you reset your password. After you define your password the first time, you can always change your password from the Administration Interface. For more information, see Password Management.

From the Password and License page, you can set your Administration Interface password and enter your license details.

## Welcome to Zend Server

Please define your Administration interface password and License information.

### 1. Set password

Enter password:

Retype password:

### 2. Enter License details

Order number:

License key:

 If you do not have license, [Click here to see how to get a license](#) or click "Enter without license" to run Zend Server in Community Edition mode.

## Setting a Password

Your password is used to log in to the Administration Interface, either from the main login page accessed from your browser or from the Zend Controller.

If you are using the Zend Controller locally or remotely (i.e., Zend Server Community Edition and Zend Controller are located on separate machines), make sure that the Zend Controller settings match your Zend Server settings. Click here for instructions on how to change your Zend Controller settings according to your operating system.

Passwords must be between 4 - 20 characters long.

## Licenses

You are not required to enter a license to use Zend Server Community Edition. However, you must have a valid license to use the complete edition of Zend Server Community Edition.

### How do I just take a look at the product?

If you enter Zend Server Community Edition without a license, you can run Zend Server Community Edition in the Community Edition Mode. In this mode, Zend Server's Community Edition features ( PHP 5.x, Zend Data Cache, Zend Debugger, Zend Guard Loader, Zend Java Bridge and Zend Optimizer+) are available and the features that require a license are visible and disabled.



To enter the Community Edition mode, do not enter an Order Number and License Key.

Click  to start using Zend Server Community Edition in Community Edition mode.

As soon as you enter a valid license, all licensed features are automatically activated for the license period.

### How do I get a License?


If you do not already have a license, go to the [licensing page on zend.com](http://licensing.page.on.zend.com) to find out how to get a license.

### I already have a License - what do I do?

If you have already purchased a license, you should have received a confirmation e-mail that includes your Order Number and License Key.



#### **If you have just installed Zend Server Community Edition :**

To enter a license, enter your Order Number and License Key as stated in your confirmation e-mail and click .

#### **If you have already been running Zend Server Community Edition in Community Edition Mode or with an evaluation license:**

In the Administration Interface go to Administration | Password and License. Enter your new license details into the "Update License" area.

Click  to apply the changes.

Zend Server Community Edition will start to run in a fully functional mode.

## **License Expiration**

Before a license expires, a notification is displayed at the bottom of the Administration Interface, telling you how long you have left until your license expires and where to go to renew your license.

Once a license expires, Zend Server Community Edition reverts to Community Edition mode until a new license is entered. During this time, all licensed features are unavailable. However, their settings are kept and are restored, along with the functionality, when a new license is entered.



# Post Installation

## Package Setup and Control Scripts

Package setup and control scripts, refers to the management of the different components included in Zend Server Community Edition. A list of the components that are installed and running on **your** system can be found in the Administration Interface in **Server Setup | Components**.

Which components are installed depends on the chosen installation method, license type and product version.

**The following sections describe how to do the following:**

- How to Start/Stop services on MS Windows
- How to control Zend Server Community Edition components from the command line

## Starting Services on MS Windows

All Zend Server Community Edition component services are managed by the MS Windows Service Manager.

To Start/Stop (run) or restart any of the services go to **Start | Control Panel | Administrative Tools | Services**.

The installed components that have services are displayed with a Zend Prefix.

Additional components can be added by running the installer in modify mode:



### To add components:

1. Use the Windows Control Panel **Start | Control Panel | Add or Remove Programs**.
2. In the **Add or Remove Programs** dialog, locate and click on the Zend Server Community Edition package in the list.
3. Click **Change**.  
The installer will start to run in modify mode.
4. Click **Modify** and select the components you want to add in the Custom Setup dialog..

This adds (and can also remove) any additional packages that are selected.

## Controlling Zend Server Community Edition Components from the Command Line

The setup and control scripts control the optional components that come with Zend Server Community Edition for the DEB, Tarball and RPM packages.



**To control the Administration Interface's dedicated server, run:**

```
# <install_path>/bin/lighttpdctl.sh stop|start|restart:
```

**To set the Administration Interface's password, run:**

```
# <install_path>/bin/gui_passwd.sh
```

**To setup the Java Bridge, run:**

```
#<install_path>/bin/setup_jb.sh
```

**To control (start/stop) the Java Bridge daemon, run:**

```
# <install_path>/bin/java_bridge.sh stop|start|restart
```

## Command Line Actions

The following lists the possible actions that can be done to the Zend Server Community Edition components from the command line:

Usage: `<install_path>bin/zendctl.sh<action>`

### *Zend Server Community Edition*

*start* - Start all Zend Server Community Edition daemons

*stop* - Stop all Zend Server Community Edition daemons

*restart* - Restart all Zend Server Community Edition daemons

*version* - Print Zend Server Community Edition version

*status* - Get Zend Server Community Edition status

### **Apache**

*start-apache* - Start Apache only

*stop-apache* - Stop Apache only

*restart-apache* - Restart Apache only

### **LightHttpd**

*start-lighttpd* - Start lighttpd only

*stop-lighttpd* - Stop lighttpd only

*restart-lighttpd* - Restart lighttpd only

## Java Bridge

*setup-jb* - Setup Java bridge

Running *zendctl.sh* will show a list of uses and only after running *setup\_jb.sh* will the following additional options be available:

*start-jb* - Start Java bridge only

*stop-jb* - Stop Java bridge only

*restart-jb* - Restart Java bridge only

## Zend Monitor:

*start-monitor* - Start Monitor node only

*stop-monitor* - Stop Monitor node only

*restart-monitor* - Restart Monitor node only

# Log Rotation

**This item is only relevant for Linux and Mac OS X .**

In production environments, it is important to periodically compress/archive or truncate log file contents. Controlling your log file size prevents unnecessary disk consumption due to bloated log files. The following instructions describe how to override the native Zend Server Community Edition log rotation mechanism and use *logrotate*.

## Note:

*logrotate* is not part of the Zend Server Community Edition product. To add this component you can use *yum* and *aptitude*, according to your distribution's repository.

For example, to locate the package in yum, run `# yum search logrotate`. You can do the same with aptitude too. If your distribution does not include this package in its repositories, you can download the source from here: <https://fedorahosted.org/logrotate/>.

## Configuring Log Rotation for Zend Server Community Edition Logs

The following procedure describes how to configure automatic log rotation for all Zend Server Community Edition logs, using the *logrotate* daemon. For full details on the third party *logrotate* utility, see the [utility's man page](#) (`man logrotate`).

This daemon is installed by default, or can be easily installed on all Zend Server Community Edition supported Linux distributions.

Before using *logrotate*, make sure that the Zend component internal log rotation is disabled (see [To Disable Log Rotation](#)).



To configure log rotation:

1. Log in as root or use sudo to execute the following commands.
2. Create a file called zendserver using a text editor and save it in /etc/logrotate.d/, with the following content:

```
/usr/local/zend/var/log/*.log {  
    size 5M  
    missingok  
    rotate 10  
    compress  
    delaycompress  
    copytruncate  
}
```

3. Save the file.

You have now created a configuration file for all the files located in /usr/local/zend/var/log/ that will be picked-up by *logrotate*. **According to the above mentioned configuration, *logrotate* checks the file size of each log, every time it is executed (through a daily cron job on most systems).** If the file size exceeds 5Mb, the log file is archived by moving the content to a new file and truncating the log file. The new file's name is the same name with an additional number added to the file name. According to the example, *logrotate* created up to ten backup files. After exceeding ten files, the oldest file is deleted and replaced with new content.

**The code example describes the following settings:**

- *size 5M* = file size to rotate
- *missingok* = if the file is not found, do not generate an error.
- *rotate 10* = keep up to ten backup files.
- *compress* = compress archive log files, using gzip.
- *delaycompress* = do not compress the newest file created.
- *copytruncate* = rotation method. In this case, copy the content to a new file and truncate the active log.

## To Disable Log Rotation

The following procedure describes how to disable Zend component internal log rotation.



To disable log rotation, set the `log_rotation_size` directive to 0.

The default log rotation directive value is 10mb.

# Ports and Services

This section lists the services that run after installing Zend Server Community Edition and the ports these services listen to.

## Linux /Mac OS X

After the installation, the following TCP ports will be used by Zend Server Community Edition 's components:

- Apache: The Linux generic Tarball and Mac installation set Apache to listen to port 10088. When installing Zend Server using DEB/RPM repositories the distribution's Apache is used; by default in such cases Apache will listen to port 80 - although this setting might change according to your predefined settings.  
To change this setting, edit your Apache configuration file.
- Administration Interface: The Administration Interface's dedicated server listens to ports 10081 (http) and 10082 (https) by default.
- Java Bridge: The Java Bridge daemon, when enabled, listens on port 10001.

## Windows

After the installation the following TCP ports will be used by Zend Server Community Edition 's components:

- IIS: When Zend Server is installed on IIS the ports to which IIS listens to are defined by your IIS configuration.
- Apache: When Zend Server is installed on Apache, it listens on port 80 by default unless a different port was selected during installation. To change this port edit your Apache configuration file.  
Note: If you change this port, remember to update the URL in the Zend Controller.
- Java Bridge: The Java Bridge daemon, when enabled, listens on port 10001.

# Installed Components

The following text provides a description of each of the Zend Server Community Edition components that are installed in your environment Along with the installation location of each component.

## Installation Directories

Not all users decide to install their software in the same location. To reflect this requirement, all paths in this document have been replaced with the following prefix: <install\_path>. This represents the location of the installed files. If you used the default settings, the location should be as follows:

- Windows: C:\Program Files\Zend\ZendServer
- Windows 64 bit C:\Program Files (x86)\Zend\ZendServer
- DEB/RPM: /usr/local/zend
- Tarball: /usr/local/zend
- Mac: /usr/local/zend

Component	Loaded	Description	Installation Path	Comments
PHP	+	The Zend certified version of PHP 5.2.x or 5.3.x that includes commonly used and Zend extensions.	<b>Windows:</b> <install_path>\bin <b>RPM, DEB:</b> <install_path>/lib/php/libphp5.so <b>Tarball and Mac:</b> <install_path>/apache2/modules/libphp5.so The extensions for all are under: <install_path>/lib/php_extensions	



Component	Loaded	Description	Installation Path	Comments
<b>Zend Optimizer+</b>	+	Zend's extension for using opcode caching and optimizations for PHP.	<b>Windows:</b> <install_path>\lib\optimizerplus <b>RPM, DEB, Tarball and Mac:</b> <install_path>/lib/optimizerplus	
<b>Zend Guard Loader</b>	+	The Zend Guard Loader for running PHP, encoded with Zend Guard.	<b>Windows:</b> <install_path>\lib\loader <b>RPM, DEB, Tarball and Mac:</b> <install_path>/lib/loader	
<b>Zend Debugger</b>	+	Zend's extension for server side debugging, profiling and code coverage.	<b>Windows:</b> <install_path>\lib\debugger <b>RPM, DEB, Tarball and Mac:</b> <install_path>/lib/debugger	
<b>Zend Cache</b>	+	A Zend extension for PHP data caching and partial PHP output caching.	<b>Windows:</b> <install_path>\lib\datacache <b>RPM, DEB, Tarball and Mac:</b> <install_path>/lib/datacache	
<b>Java Server</b>	-	The Java PHP extension, Java daemon and setup files.	<b>Windows:</b> <install_path>\bin <b>RPM, DEB, Tarball and Mac:</b> <b>PHP Extensions -</b> <install_path>/lib/jbridge/php.5.2.x/zendbridge.so <b>Java Daemon -</b> <install_path>/lib/jbridge/jawamw.jar	

Component	Loaded	Description	Installation Path	Comments
<b>Java Bridge</b>	+	Enables integration of Java libraries and classes within PHP applications.	<b>Windows:</b> <install_path>\lib\jbridge <b>RPM, DEB, Tarball and Mac:</b> <install_path>/lib/jbridge	<b>Note:</b> Requires SUN's JRE 1.4 or later or IBM's Java 1.4.2 or later. 64 bit JRE is not supported. More information see: <a href="#">SUN Microsystems's website</a> .
<b>Zend Framework</b>	+	Installs Zend's open-source framework for developing Web Applications and Web Services in PHP.	<b>Windows:</b> <install_path>\share\ZendFramework <b>RPM, DEB, Tarball and Mac:</b> <install_path>/share/ZendFramework	This installs libraries containing the Zend framework components.
<b>Oracle Instant Client</b>	+	This installs Oracle OCI (Oracle Instant Client Libraries) lightweight drivers for accessing Oracle Databases.	<b>Windows:</b> <install_path>\bin <b>RPM, DEB, Tarball and Mac:</b> The extension resides with the other extensions, the libraries it depends upon are in <install_path>/lib/	Required for Oracle database access from PHP.

Component	Loaded	Description	Installation Path	Comments
<b>phpMyAdmin</b>	-	A popular open-source management tool for handling MySQL Database over a Web interface.	<b>Windows:</b> <install_path>\..\phpMyAdmin <b>Tarball:</b> not bundled <b>Mac:</b> <install_path>/share/phpMyAdmin <b>DEB and RPM:</b> the distribution's default location.	Downloaded during installation. Only relevant for MySQL Database users.
<b>IBM DB2 RTCL</b>	-	This installs the IBM DB2 run Time Client libraries for managing Database access.	<b>Windows:</b> user defined location in a separate installer <b>RPM, DEB, Tarball and Mac:</b> IBM DB2 RTCL is not shipped with Zend Server Community Edition and can be downloaded from <a href="http://ftp.software.ibm.com/software/data/db2/express/">http://ftp.software.ibm.com/software/data/db2/express/</a>	Downloaded during installation. Required for IBM DB2 access from PHP.
<b>MySQL</b>	-	Installs a complete MySQL database on the Web Server.	<b>Windows:</b> <install_path>\..\MySQL <b>Mac:</b> <install_path>/mysql <b>RPM, DEB, Tarball:</b> Not Bundled  MySQL server's user name and password <b>Linux:</b> Default - "root" <b>Mac OS X:</b> Defined in the installation Process <b>Windows:</b> Default - "root" and no password	Downloaded during installation. Usually the password is "root" for administrators). For more information see: Working with phpMyAdmin to Manage MySQL

Component	Loaded	Description	Installation Path	Comments
<b>Apache 2.2.x Web server</b>	-/+		<b>Windows:</b> <install_path>\..\Apache2 <b>Tarball and Mac:</b> <install_path>/apache2 <b>DEB and RPM:</b> the distribution's Apache package.	Installed only if the option is selected. The alternative is to configure to an existing installation of IIS and then Apache will not be installed.

# Upgrading

The information in this section refers to the different upgrade options available to users, according to the product currently installed and available installation type.

## Upgrading your RPM Installation to Merge Configuration Files During Upgrade

To control what yum will do with configuration changes when installing or updating packages, use *yum-merge-conf*.



To install, run `# yum install yum-merge-conf`.

To use the plugin, pass `--merge-conf` to yum, in addition to the regular flags that you use.

## Upgrading to a Newer Version of Zend Server Community Edition

The following instructions pertain to the process of installing a newer version of the same product, i.e., a newer version of Zend Server Community Edition or a newer version of Zend Server Community Edition CE (Community Edition). For example, upgrading from version 4.00 to 4.01.

### Zend Server

Installation Type	Zend Server	Configuration Information	Comments
RPM	+		
DEB	+	Handles all configuration upgrades.	
Tarball	-		
Mac OS X	-		
Windows	+	Upgrades include existing configurations.	The installer automatically identifies if it is a new installation or an upgrade.

## Zend Server CE

Installation Type	Community Edition	Configuration Information	Comments
RPM	+		
DEB	+	Handles all configuration upgrades	
Tarball	+	A separate backup of the ZendServer/etc/ directory is created.	Manually restore the old configuration file if you want to keep configurations. The configuration file is placed in the same location as the <i>.conf</i> file and is renamed with a timestamp. To use the backup rename to <i>.conf</i> .
Mac OS X	+	When upgrading, the following information will be preserved.	apache2/htdocs apache2/conf apache2/conf.d Except for apache2/conf.d/zendserver_gui.conf etc/php.ini etc/conf.d/*.ini All directories under share/pear/ (but not .php files) gui/application/data/zend-server-user.ini gui/application/data/logfiles.xml MySQL data directory MySQL my.cnf file
Windows	+	Upgrades include existing configurations.	The installer automatically identifies if it is a new installation or an upgrade.

## Upgrading from Zend Server CE to Zend Server

Installation Type	Availability	Configuration Information	Comments
RPM	+		You must first add the new repository to your sources.list. Use <i>yum-merge-conf</i> to manage configurations (see above).
DEB	+	Handles all configuration upgrades	You must first add the new repository to your sources.list.
Tarball	-		
Mac OS X	-		
Windows	+	Configuration information is imported from: ZendServer\etc\ ZendServer\GUI\application\data\ Apache2\conf/	

### RPM Upgrade Note:

After upgrading from the Community Edition to Zend Server, you will need to manually start your server by running the command: `<install_path>/bin/zendctl.sh start`.

## Manual Rollback

Once you have upgraded your Community Edition to Zend Server, you will need a license to run the fully functional product . If you do not enter a license, Zend Server will run with the same functionality as the Community Edition: There is no need to do anything. The full version of Zend Server will continue to provide the basic Community Edition features and functionality. This also means that when you do decide to purchase Zend Server, all you need to do is add a license to activate the complete functionality.

Alternatively, you can remove Zend Server and reinstall the Community Edition. To preserve your configurations, back up your configuration files before you remove Zend Server and return them after you reinstall the Community Edition.

The recommended directories to backup are:

- **In Windows:**
  - ZendServer\etc\
  - ZendServer\GUI\application\data\
  - Apache2\conf\
- **In Linux:**
  - ZendServer/etc/
  - ZendServer/GUI/application/data/
  - Apache2/conf/



## Upgrading Zend Server Community Edition from Zend Platform/Zend Core

Currently there is no automated process for upgrading from Zend Platform/Zend Core to Zend Server Community Edition. However, it is possible to install Zend Server Community Edition on a separate machine and manually transfer part of the Zend Platform/Zend Core configurations to the machine running Zend Server Community Edition. This may help save some time configuring your Zend Server Community Edition environment.

The following configuration files can be manually copied and used to replace Zend Server Community Edition configuration files:

- Apache configuration files
- php.ini

After transferring any configuration from Zend Platform/Zend Core to Zend Server Community Edition it is highly recommended to thoroughly test your applications before permanently applying these changes.