

This is unreleased documentation for Apache Ozone **Next** version.

For up-to-date documentation, see the [latest version](#) (2.2.0).

🏠 > Administrator Guide > Configuration > Basic > Environment Variables

Version: Next

Environment Variables

The `ozone-env.sh` script, located at `$OZONE_HOME/etc/hadoop`, defines the environment variables used by Ozone processes.

Note: The following list is not exhaustive but includes the most commonly used environment variables.

Common Environment Variables

These environment variables apply to all Ozone processes.

Variable	Default Value	Description
<code>JAVA_HOME</code>	(none)	The path to the Java installation. Must be set on most platforms, but is auto-detected on macOS.
<code>OZONE_HOME</code>	Auto-detected from script location	The path to the Ozone installation directory.
<code>OZONE_CONF_DIR</code>	<code>\$OZONE_HOME/etc/hadoop</code>	The directory containing Ozone configuration files.
<code>OZONE_LOG_DIR</code>	<code>\$OZONE_HOME/logs</code>	The directory where Ozone log files are stored.

Variable	Default Value	Description
<code>OZONE_SECURE_LOG_DIR</code>	<code>\$OZONE_LOG_DIR</code>	The directory where logs for secure (privileged) daemons are stored.
<code>OZONE_PID_DIR</code>	<code>/tmp</code>	The directory where daemon PID files are stored.
<code>OZONE_WORKER_NAMES</code>	(none)	A space-separated list of worker host names, used as an alternative to the <code>OZONE_WORKERS</code> file. Only one of the two may be set.
<code>OZONE_OPTS</code>	<code>- Djava.net.preferIPv4Stack=true</code>	Universal Java options applied to all Ozone processes.
<code>OZONE_LOGLEVEL</code>	<code>INFO</code>	The default log level applied to Ozone processes.
<code>OZONE_HEAPSIZE_MAX</code>	(JVM default)	The maximum JVM heap size (<code>-Xmx</code>). If not set, the JVM auto-scales.
<code>OZONE_HEAPSIZE_MIN</code>	(JVM default)	The minimum JVM heap size (<code>-Xms</code>). If not set, the JVM auto-scales.

Role-Specific Environment Variables

These environment variables apply only to certain Ozone services or roles.

Variable	Default Value	Description
<code>OZONE_SERVER_OPTS</code>	(none)	Options for all Ozone server daemons (appended to <code>OZONE_OPTS</code>).
<code>OZONE_CLIENT_OPTS</code>	(empty)	Specifies Java properties for Ozone commands and clients.
<code>OZONE_OM_OPTS</code>	(empty)	Specifies Java properties for the Ozone Manager (OM).
<code>OZONE_SCM_OPTS</code>	(empty)	Specifies Java properties for the Storage Container Manager (SCM).
<code>OZONE_DATANODE_OPTS</code>	(empty)	Specifies Java properties for Datanodes.
<code>OZONE_S3G_OPTS</code>	(empty)	Specifies Java properties for the S3 Gateway.
<code>OZONE_RECON_OPTS</code>	(empty)	Specifies Java properties for the Recon server.
<code>OZONE_HTTPFS_OPTS</code>	(empty)	Specifies Java properties for the HttpFS Gateway.
<code>OZONE_CSI_OPTS</code>	(empty)	Specifies Java properties for the CSI server.
<code>OZONE_SH_OPTS</code>	(empty)	Specifies Java properties for the <code>ozone sh</code> command.
<code>OZONE_FS_OPTS</code>	(empty)	Specifies Java properties for the <code>ozone fs</code> command.
<code>OZONE_ADMIN_OPTS</code>	(empty)	Specifies Java properties for the <code>ozone admin</code> command.

Variable	Default Value	Description
<code>OZONE_DEBUG_OPTS</code>	(empty)	Specifies Java properties for the <code>ozone debug</code> command.
<code>OZONE_FREON_OPTS</code>	(empty)	Specifies Java properties for the <code>ozone freon</code> command.
<code>OZONE_VAPOR_OPTS</code>	(empty)	Specifies Java properties for the <code>ozone vapor</code> command.
<code>OZONE_DAEMON_JSVCS_EXTRA_OPTS</code>	(none)	Extra arguments passed to <code>jsvc</code> when launching secure (privileged) daemons.

Configuration Methods

There are several ways to set these environment variables, depending on your needs.

System-Wide Configuration

For multi-user environments, creating a system-wide profile file ensures that variables are set for all users. A common practice is to create a file in `/etc/profile.d/`, which is loaded by most shells on login.

Example for `/etc/profile.d/ozone.sh`:

```
export JAVA_HOME="$(/usr/libexec/java_home)"
export OZONE_HOME=/opt/ozone
export OZONE_CONF_DIR=/etc/ozone
```

After creating this file, users must log out and log back in for the changes to take effect.

User-Specific Configuration

If you only need to set variables for a single user, you can add them to their personal shell profile.

- For Bash users, add to `~/.bashrc` or `~/.bash_profile`.
- For Zsh users, add to `~/.zshrc`.
- For other shells, consult their documentation.

Example for `~/.bashrc`:

```
export OZONE_HOME=~/.ozone
export OZONE_CONF_DIR=$OZONE_HOME/etc/hadoop
```

After editing, you must reload the profile (e.g., `source ~/.bashrc`) or open a new shell session.

Per-Command Configuration

For quick tests or one-off commands, you can set an environment variable for a single command's execution.

```
OZONE_HEAPSIZE_MAX=16G ozone sh volume create /vol1
```