
Dockerfile Documentation

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Welcome to the documentation pages for the WebDevOps Dockerfiles.

Here you will find informations regarding our Dockerfiles and how to use them.

This documentation is a work in progress and we appreciate every help we can get, so feel free to contribute.

1.1 What are the Dockerfile for?

The Dockerfile repository is responsible for generating our Docker images on <https://hub.docker.com/u/webdevops/>.

We're generating Docker images for PHP, Apache, Nginx, Varnish or Sphinx.

All Docker images are generated by our Build server at <https://build.webdevops.io/>.

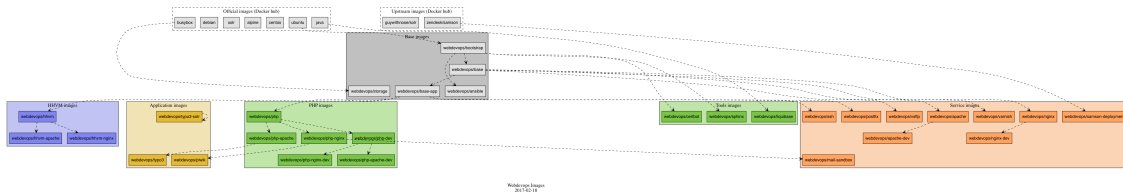


Fig. 1: Docker image hierarchy

2.1 webdevops/ansible

deprecated

All webdevops/ansible images are based on webvdevops/bootstrap without any changes.

2.1.1 Docker image tags

| Tag | Distribution name |
|--------------|-------------------|
| alpine | Alpine |
| alpine-3 | <i>deprecated</i> |
| ubuntu-12.04 | <i>deprecated</i> |
| ubuntu-14.04 | <i>deprecated</i> |
| ubuntu-15.04 | <i>deprecated</i> |
| ubuntu-15.10 | <i>deprecated</i> |
| ubuntu-16.04 | <i>deprecated</i> |
| debian-7 | <i>deprecated</i> |
| debian-8 | <i>deprecated</i> |
| debian-9 | <i>deprecated</i> |
| centos-7 | |

2.2 webdevops/apache

These image extends `webdevops/base` with a apache daemon which is running on port 80 and 443

Uses Supervisor

This image is using supervisor and runs the daemon under user `application` (UID 1000; GID 1000) as default. If the container is started under a different user the daemon will be run under the specified uid.

2.2.1 Docker image tags

| Tag | Distribution name |
|---------------------------|-------------------|
| <code>alpine</code> | Alpine |
| <code>alpine-3</code> | <i>deprecated</i> |
| <code>ubuntu-12.04</code> | <i>deprecated</i> |
| <code>ubuntu-14.04</code> | <i>deprecated</i> |
| <code>ubuntu-15.04</code> | <i>deprecated</i> |
| <code>ubuntu-15.10</code> | <i>deprecated</i> |
| <code>ubuntu-16.04</code> | <i>deprecated</i> |
| <code>debian-7</code> | <i>deprecated</i> |
| <code>debian-8</code> | <i>deprecated</i> |
| <code>debian-9</code> | <i>deprecated</i> |
| <code>centos-7</code> | |

2.2.2 Environment variables

Web environment variables

| Environment variable | Description | Default |
|----------------------------------|-----------------------------|---|
| <code>WEB_DOCUMENT_ROOT</code> | Document root for webserver | <code>/app</code> |
| <code>WEB_DOCUMENT_INDEX</code> | Index document | <code>index.php</code> |
| <code>WEB_ALIAS_DOMAIN</code> | Domain aliases | <code>*.vm</code> |
| <code>WEB_PHP_SOCKET</code> | PHP-FPM socket address | <code>127.0.0.1:9000</code> (for <code>php-*</code> images) |
| <code>SERVICE_PHPFPM_OPTS</code> | PHP-FPM command arguments | <i>empty</i> (when <code>php fpm</code> is used) |
| <code>SERVICE_APACHE_OPTS</code> | Apache command arguments | <i>empty</i> (when <code>apache</code> is used) |
| <code>SERVICE_NGINX_OPTS</code> | Nginx command arguments | <i>empty</i> (when <code>nginx</code> is used) |

2.2.3 Customization

Apache customization

This image has two directories for configuration files which will be automatic loaded.

For global configuration options the directory `/opt/docker/etc/httpd/conf.d` can be used. For vhost configuration options the directory `/opt/docker/etc/httpd/vhost.common.d` can be used.

Any `*.conf` files inside these directories will be included either global or the vhost section.

2.2.4 Docker image layout

Apache layout

| File/Directory | Description |
|--|--|
| /opt/docker/etc/httpd/conf.d | Main global configuration directory (automatically included files) |
| /opt/docker/etc/httpd/conf.d/10-php.conf | PHP cgi configuration |
| /opt/docker/etc/httpd/conf.d/10-error-document.conf | Error document configuration |
| /opt/docker/etc/httpd/conf.d/10-log.conf | Log configuration |
| /opt/docker/etc/httpd/conf.d/10-server.conf | Basic server configuration |
| /opt/docker/etc/httpd/ssl | SSL configuration directory for certifications and keys |
| /opt/docker/etc/httpd/ssl/server.crt | Example SSL certification (*.vm) |
| /opt/docker/etc/httpd/ssl/server.csr | Example SSL certification request (*.vm) |
| /opt/docker/etc/httpd/ssl/server.key | Example SSL key (*.vm) |
| /opt/docker/etc/httpd/vhost.common.d | Vhost configuration directory (automatically included files) |
| /opt/docker/etc/httpd/vhost.common.d/01-boilerplate.conf | Placeholder configuration file (prevent include errors for Apache 2.2) |
| /opt/docker/etc/httpd/global.conf | Global httpd configuration |
| /opt/docker/etc/httpd/main.conf | Main httpd configuration |
| /opt/docker/etc/httpd/php.conf | Deprecated PHP configuration |
| /opt/docker/etc/httpd/vhost.common.conf | Deprecated vhost common include |
| /opt/docker/etc/httpd/vhost.conf | Vhost configuration |
| /opt/docker/etc/httpd/vhost.ssl.conf | Vhost SSL configuration |
| /opt/docker/etc/supervisor.d/httpd.conf | Supervisord configuration file for Apache HTTPD |

2.3 webdevops/apache-dev

These image extends `webdevops/base` with a apache daemon which is running on port 80 and 443

Uses Supervisord

This image is using supervisor and runs the daemon under user `application` (UID 1000; GID 1000) as default. If the container is started under a different user the daemon will be run under the specified uid.

Attention: Webserver is running development mode, assets and resource files will be send without caching to browser!

2.3.1 Docker image tags

| Tag | Distribution name |
|--------------|-------------------|
| alpine | Alpine |
| alpine-3 | <i>deprecated</i> |
| ubuntu-12.04 | <i>deprecated</i> |
| ubuntu-14.04 | <i>deprecated</i> |
| ubuntu-15.04 | <i>deprecated</i> |
| ubuntu-15.10 | <i>deprecated</i> |
| ubuntu-16.04 | <i>deprecated</i> |
| debian-7 | <i>deprecated</i> |
| debian-8 | <i>deprecated</i> |
| debian-9 | <i>deprecated</i> |
| centos-7 | |

2.3.2 Environment variables

Base environment variables

| Environment variable | Description | Default |
|----------------------|-------------------------------|--------------|
| POSTFIX_MYNETWORKS | Postfix mynetworks address | <i>empty</i> |
| POSTFIX_RELAYHOST | Postfix upstream relay server | <i>empty</i> |

Web development environment variables

| Environment variable | Description | Default |
|-----------------------|---|---------------------------------------|
| WEB_DOCUMENT_ROOT | Document root for webserver | /app |
| WEB_DOCUMENT_INDEX | Index document | index.php |
| WEB_ALIAS_DOMAIN | Domain aliases | *.vm |
| WEB_PHP_SOCKET | PHP-FPM socket address | 127.0.0.1:9000 (for php-* images) |
| WEB_PHP_TIMEOUT | Webserver PHP request timeout | 600 |
| WEB_NO_CACHE_PATTERNS | RegEx of files which should be delivered by webserver as non cacheable to browser | \.(css js gif png jpg svg json xml)\$ |

2.3.3 Customization

Apache customization

This image has two directories for configuration files which will be automatic loaded.

For global configuration options the directory `/opt/docker/etc/httpd/conf.d` can be used. For vhost configuration options the directory `/opt/docker/etc/httpd/vhost.common.d` can be used.

Any `*.conf` files inside these directories will be included either global or the vhost section.

2.3.4 Docker image layout

Apache layout

| File/Directory | Description |
|--|--|
| /opt/docker/etc/httpd/conf.d | Main global configuration directory (automatically included files) |
| /opt/docker/etc/httpd/conf.d/10-php.conf | PHP cgi configuration |
| /opt/docker/etc/httpd/conf.d/10-error-document.conf | Error document configuration |
| /opt/docker/etc/httpd/conf.d/10-log.conf | Log configuration |
| /opt/docker/etc/httpd/conf.d/10-server.conf | Basic server configuration |
| /opt/docker/etc/httpd/ssl | SSL configuration directory for certifications and keys |
| /opt/docker/etc/httpd/ssl/server.crt | Example SSL certification (*.vm) |
| /opt/docker/etc/httpd/ssl/server.csr | Example SSL certification request (*.vm) |
| /opt/docker/etc/httpd/ssl/server.key | Example SSL key (*.vm) |
| /opt/docker/etc/httpd/vhost.common.d | Vhost configuration directory (automatically included files) |
| /opt/docker/etc/httpd/vhost.common.d/01-boilerplate.conf | Placeholder configuration file (prevent include errors for Apache 2.2) |
| /opt/docker/etc/httpd/global.conf | Global httpd configuration |
| /opt/docker/etc/httpd/main.conf | Main httpd configuration |
| /opt/docker/etc/httpd/php.conf | Deprecated PHP configuration |
| /opt/docker/etc/httpd/vhost.common.conf | Deprecated vhost common include |
| /opt/docker/etc/httpd/vhost.conf | Vhost configuration |
| /opt/docker/etc/httpd/vhost.ssl.conf | Vhost SSL configuration |
| /opt/docker/etc/supervisor.d/httpd.conf | Supervisord configuration file for Apache HTTPD |

2.4 webdevops/base

Our application base container contains some general tools, the provisioning system (Ansible), a preconfigured modular supervisord and a modular *entrypoint* script.

Uses Supervisord

This image is using supervisor and runs the daemon under user `application` (UID 1000; GID 1000) as default. If the container is started under a different user the daemon will be run under the specified uid.

2.4.1 Docker image tags

| Tag | Distribution name |
|--------------|-------------------|
| alpine | Alpine |
| alpine-3 | <i>deprecated</i> |
| ubuntu-12.04 | <i>deprecated</i> |
| ubuntu-14.04 | <i>deprecated</i> |
| ubuntu-15.04 | <i>deprecated</i> |
| ubuntu-15.10 | <i>deprecated</i> |
| ubuntu-16.04 | <i>deprecated</i> |
| debian-7 | <i>deprecated</i> |
| debian-8 | <i>deprecated</i> |
| debian-9 | <i>deprecated</i> |
| centos-7 | |

2.4.2 Environment variables

Base environment variables

| Environment variable | Description | Default |
|-------------------------|------------------------------|------------------------------------|
| LOG_STDOUT | Destination of daemon output | <i>empty</i> (stdout) |
| LOG_STDERR | Destination of daemon errors | <i>empty</i> (stdout) |
| SERVICE_CRON_OPTS | cron daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_DNSMASQ_OPTS | dnsmasq daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_DNSMASQ_USER | dnsmasq effective user | root |
| SERVICE_POSTFIX_OPTS | postfix daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_SSH_OPTS | ssh daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_SUPERVISOR_OPTS | supervisor daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_SUPERVISOR_USER | supervisor effective user | root |
| SERVICE_SYSLOG_OPTS | syslog daemon arguments | <i>empty</i> (when syslog is used) |

2.4.3 Entrypoint

The entrypoint script is located in `/opt/docker/bin/entrypoint.sh` and will also start the entrypoint provisioning before running the requested CMD.

Based on CMD the entrypoint script is trying to find the appropriate worker script located in `/opt/docker/bin/entrypoint.d` and executes it. It must matches the CMD and if there is no appropriate worker script the entrypoint falls back to `/opt/docker/bin/entrypoint.d/default.sh` which just executes the specified CMD.

This approach allows a modular entrypoint and also allows to directly jump into a container (eg. with `docker run -ti webdevops/apache bash`) without uploading or modifying the entrypoint.

Example for starting supervisord (executed by `entrypoint.d/supervisord.sh`):

```
ENTRYPOINT ["/opt/docker/bin/entrypoint.sh"]
CMD ["supervisord"]
```

| File/Directory | Description |
|---|--|
| /opt/docker/bin/entrypoint.sh | Entrypoint script for ENTRYPOINT instruction in Dockerfile |
| /opt/docker/bin/entrypoint.d/default.sh | Default worker script, will execute the defined cmd |
| /opt/docker/bin/entrypoint.d/cli.sh | Starts predefined CLI_SCRIPT (environment variable) |
| /opt/docker/bin/entrypoint.d/noop.sh | Starts a noop endless loop at startup |
| /opt/docker/bin/entrypoint.d/root.sh | Starts a root shell (deprecated) |
| /opt/docker/bin/entrypoint.d/supervisord.sh | Starts supervisord daemon at startup (CMD ["supervisord"]) |

2.4.4 Supervisord

Supervisord is a lightweight daemon which starts and monitor other programs. We're using it for running more than one task in a docker container (eg. PHP-FPM and Apache/Nginx).

| File/Directory | Description |
|-------------------------------------|--|
| /opt/docker/etc/supervisor.conf | Main supervisord configuration file |
| /opt/docker/etc/supervisor.d/*.conf | Modular service configuration files for supervisord (will be included automatically) |
| /opt/docker/bin/serviced/*.sh | Service scripts if services needs more than just a single command line for startup |

2.4.5 Provisioning

With Ansible the provisioning tasks can be easily done inside the Docker image (eg. for configurations and deployments). There is also a small provision script for registering and running Ansible roles.

For even simpler tasks there is also a possibility to upload small shell scripts which will be executed at the specific tags.

Register a new role (eg. with tag build): `/opt/docker/bin/provision add --tag build rolename`

Run all registered roles and scripts (in Dockerfile): `/opt/docker/bin/bootstrap.sh`

| Tag | Description |
|------------|--|
| bootstrap | Run on Docker image creation (only run once) |
| build | Run on Docker image build |
| onbuild | Run on Docker image ONBUILD |
| entrypoint | Run on Docker image entrypoint execution (only here Environment variables are available) |

| File/Directory | Description |
|---|---|
| /opt/docker/bin/provision | Provision script |
| /opt/docker/bin/bootstrap.sh | Wrapper for running registred provisions (just run it as last script in Dockerfile) |
| /opt/docker/provision/roles | Directory for Ansible roles |
| /opt/docker/provision/ bootstrap.d/*.sh | Directory for provisioning shell scripts (tag: bootstrap) |
| /opt/docker/provision/build.d/ *.sh | Directory for provisioning shell scripts (tag: build) |
| /opt/docker/provision/onbuild. d/*.sh | Directory for provisioning shell scripts (tag: onbuild) |
| /opt/docker/provision/ entrypoint.d/*.sh | Directory for provisioning shell scripts (tag: entrypoint) |

2.5 webdevops/base-app

The base-app image extends the base image with additional tools and all locales.

Packages:

- OpenSSH server (disabled by default) and client
- MySQL client
- sqlite
- dnsmasq (disabled by default)
- postfix (disabled by default)
- sudo
- zip, unzip, bzip2
- wget, curl
- net-tools
- moreutils
- dns utils
- rsync
- git
- nano, vim

Because some applications are using locales for translations (eg. date formatting) all locales are generated inside this image.

For an example docker service

Attention: Alpine doesn't provide any locales so you have to find another method for using locales!

Uses Supervisor

This image is using supervisor and runs the daemon under user `application` (UID 1000; GID 1000) as default. If the container is started under a different user the daemon will be run under the specified uid.

2.5.1 Docker image tags

| Tag | Distribution name |
|--------------|-------------------|
| alpine | Alpine |
| alpine-3 | <i>deprecated</i> |
| ubuntu-12.04 | <i>deprecated</i> |
| ubuntu-14.04 | <i>deprecated</i> |
| ubuntu-15.04 | <i>deprecated</i> |
| ubuntu-15.10 | <i>deprecated</i> |
| ubuntu-16.04 | <i>deprecated</i> |
| debian-7 | <i>deprecated</i> |
| debian-8 | <i>deprecated</i> |
| debian-9 | <i>deprecated</i> |
| centos-7 | |

2.5.2 Environment variables

Base environment variables

| Environment variable | Description | Default |
|-------------------------|------------------------------|------------------------------------|
| LOG_STDOUT | Destination of daemon output | <i>empty</i> (stdout) |
| LOG_STDERR | Destination of daemon errors | <i>empty</i> (stdout) |
| SERVICE_CRON_OPTS | cron daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_DNSMASQ_OPTS | dnsmasq daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_DNSMASQ_USER | dnsmasq effective user | root |
| SERVICE_POSTFIX_OPTS | postfix daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_SSH_OPTS | ssh daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_SUPERVISOR_OPTS | supervisor daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_SUPERVISOR_USER | supervisor effective user | root |
| SERVICE_SYSLOG_OPTS | syslog daemon arguments | <i>empty</i> (when syslog is used) |

Base environment variables

| Environment variable | Description | Default |
|----------------------|-------------------------------|--------------|
| POSTFIX_MYNETWORKS | Postfix mynetworks address | <i>empty</i> |
| POSTFIX_RELAYHOST | Postfix upstream relay server | <i>empty</i> |

2.6 webdevops/bootstrap

Bootstrap images contains our baselayout (some basic scripts for secure and small package installations and handling) and a basic toolset. It will also install Ansible into the container for future provisioning of the container.

2.6.1 Docker image tags

| Tag | Distribution name |
|--------------|-------------------|
| alpine | Alpine |
| alpine-3 | <i>deprecated</i> |
| ubuntu-12.04 | <i>deprecated</i> |
| ubuntu-14.04 | <i>deprecated</i> |
| ubuntu-15.04 | <i>deprecated</i> |
| ubuntu-15.10 | <i>deprecated</i> |
| ubuntu-16.04 | <i>deprecated</i> |
| debian-7 | <i>deprecated</i> |
| debian-8 | <i>deprecated</i> |
| debian-9 | <i>deprecated</i> |
| centos-7 | |

2.6.2 Baselayout scripts

| File/Directory | Description |
|---------------------------------|--|
| /usr/local/bin/apk-install | Alpine: Updates package cache, install packages and clears package cache |
| /usr/local/bin/apk-upgrade | Alpine: Run package upgrade |
| /usr/local/bin/apt-install | Debian family: Updates package cache, install packages and clears package cache |
| /usr/local/bin/apt-upgrade | Debian family: Run package upgrade |
| /usr/local/bin/yum-install | RedHat family: Updates package cache, install packages and clears package cache |
| /usr/local/bin/yum-upgrade | RedHat family: Run package upgrade |
| /usr/local/bin/generate-locales | Generate locales |
| /usr/local/bin/rpl | Script which can replace text in files |
| /usr/local/bin/service | Supervisord service wrapper script (like <code>service</code> in Debian) |

2.7 webdevops/certbot

The certbot images are based on webdevops/bootstrap with let's encrypt certbot toolbox.

2.7.1 Docker image tags

| Tag | Distribution name |
|--------|-------------------|
| latest | Alpine 3 |

2.8 webdevops/hhvm

deprecated

The hhvm images are based on `webdevops/base-app` with HHVM cli and HHVM daemon. HHVM daemon is running on port 9000.

Uses Supervisor

This image is using supervisor and runs the daemon under user `application` (UID 1000; GID 1000) as default. If the container is started under a different user the daemon will be run under the specified uid.

2.8.1 Docker image tags

| Tag | Distribution name |
|---------------------------|-------------------|
| <code>ubuntu-14.04</code> | <i>deprecated</i> |
| <code>ubuntu-16.04</code> | <i>deprecated</i> |

2.8.2 Environment variables

Base environment variables

| Environment variable | Description | Default |
|--------------------------------------|------------------------------|------------------------------------|
| <code>LOG_STDOUT</code> | Destination of daemon output | <i>empty</i> (stdout) |
| <code>LOG_STDERR</code> | Destination of daemon errors | <i>empty</i> (stdout) |
| <code>SERVICE_CRON_OPTS</code> | cron daemon arguments | <i>empty</i> (when syslog is used) |
| <code>SERVICE_DNSMASQ_OPTS</code> | dnsmasq daemon arguments | <i>empty</i> (when syslog is used) |
| <code>SERVICE_DNSMASQ_USER</code> | dnsmasq effective user | <code>root</code> |
| <code>SERVICE_POSTFIX_OPTS</code> | postfix daemon arguments | <i>empty</i> (when syslog is used) |
| <code>SERVICE_SSH_OPTS</code> | ssh daemon arguments | <i>empty</i> (when syslog is used) |
| <code>SERVICE_SUPERVISOR_OPTS</code> | supervisor daemon arguments | <i>empty</i> (when syslog is used) |
| <code>SERVICE_SUPERVISOR_USER</code> | supervisor effective user | <code>root</code> |
| <code>SERVICE_SYSLOG_OPTS</code> | syslog daemon arguments | <i>empty</i> (when syslog is used) |

Base environment variables

| Environment variable | Description | Default |
|---------------------------------|-------------------------------|--------------|
| <code>POSTFIX_MYNETWORKS</code> | Postfix mynetworks address | <i>empty</i> |
| <code>POSTFIX_RELAYHOST</code> | Postfix upstream relay server | <i>empty</i> |

2.8.3 Docker image layout

HHVM layout

| File/Directory | Description |
|---|---|
| <code>/opt/docker/etc/supervisor.d/hhvm.conf</code> | Supervisord configuration file for HHVM |

2.9 webdevops/hhvm-apache

deprecated

This image extends `webdevops/hhvm` with a `apache` daemon which is running on port 80 and 443

Uses Supervisor

This image is using supervisor and runs the daemon under user `application` (UID 1000; GID 1000) as default. If the container is started under a different user the daemon will be run under the specified uid.

2.9.1 Docker image tags

| Tag | Distribution name |
|---------------------------|-------------------|
| <code>ubuntu-14.04</code> | <i>deprecated</i> |
| <code>ubuntu-16.04</code> | <i>deprecated</i> |

2.9.2 Environment variables

Base environment variables

| Environment variable | Description | Default |
|--------------------------------------|------------------------------|------------------------------------|
| <code>LOG_STDOUT</code> | Destination of daemon output | <i>empty</i> (stdout) |
| <code>LOG_STDERR</code> | Destination of daemon errors | <i>empty</i> (stdout) |
| <code>SERVICE_CRON_OPTS</code> | cron daemon arguments | <i>empty</i> (when syslog is used) |
| <code>SERVICE_DNSMASQ_OPTS</code> | dnsmasq daemon arguments | <i>empty</i> (when syslog is used) |
| <code>SERVICE_DNSMASQ_USER</code> | dnsmasq effective user | <code>root</code> |
| <code>SERVICE_POSTFIX_OPTS</code> | postfix daemon arguments | <i>empty</i> (when syslog is used) |
| <code>SERVICE_SSH_OPTS</code> | ssh daemon arguments | <i>empty</i> (when syslog is used) |
| <code>SERVICE_SUPERVISOR_OPTS</code> | supervisor daemon arguments | <i>empty</i> (when syslog is used) |
| <code>SERVICE_SUPERVISOR_USER</code> | supervisor effective user | <code>root</code> |
| <code>SERVICE_SYSLOG_OPTS</code> | syslog daemon arguments | <i>empty</i> (when syslog is used) |

Base environment variables

| Environment variable | Description | Default |
|---------------------------------|-------------------------------|--------------|
| <code>POSTFIX_MYNETWORKS</code> | Postfix mynetworks address | <i>empty</i> |
| <code>POSTFIX_RELAYHOST</code> | Postfix upstream relay server | <i>empty</i> |

Web environment variables

| Environment variable | Description | Default |
|----------------------|-----------------------------|-------------------------------------|
| WEB_DOCUMENT_ROOT | Document root for webserver | /app |
| WEB_DOCUMENT_INDEX | Index document | index.php |
| WEB_ALIAS_DOMAIN | Domain aliases | *.vm |
| WEB_PHP_SOCKET | PHP-FPM socket address | 127.0.0.1:9000 (for php-* images) |
| SERVICE_PHPFPM_OPTS | PHP-FPM command arguments | <i>empty</i> (when php fpm is used) |
| SERVICE_APACHE_OPTS | Apache command arguments | <i>empty</i> (when apache is used) |
| SERVICE_NGINX_OPTS | Nginx command arguments | <i>empty</i> (when nginx is used) |

2.9.3 Customization

Apache customization

This image has two directories for configuration files which will be automatic loaded.

For global configuration options the directory `/opt/docker/etc/httpd/conf.d` can be used. For vhost configuration options the directory `/opt/docker/etc/httpd/vhost.common.d` can be used.

Any `*.conf` files inside these directories will be included either global or the vhost section.

2.9.4 Docker image layout

Apache layout

| File/Directory | Description |
|--|--|
| /opt/docker/etc/httpd/conf.d | Main global configuration directory (automatically included files) |
| /opt/docker/etc/httpd/conf.d/10-php.conf | PHP cgi configuration |
| /opt/docker/etc/httpd/conf.d/10-error-document.conf | Error document configuration |
| /opt/docker/etc/httpd/conf.d/10-log.conf | Log configuration |
| /opt/docker/etc/httpd/conf.d/10-server.conf | Basic server configuration |
| /opt/docker/etc/httpd/ssl | SSL configuration directory for certifications and keys |
| /opt/docker/etc/httpd/ssl/server.crt | Example SSL certification (*.vm) |
| /opt/docker/etc/httpd/ssl/server.csr | Example SSL certification request (*.vm) |
| /opt/docker/etc/httpd/ssl/server.key | Example SSL key (*.vm) |
| /opt/docker/etc/httpd/vhost.common.d | Vhost configuration directory (automatically included files) |
| /opt/docker/etc/httpd/vhost.common.d/01-boilerplate.conf | Placeholder configuration file (prevent include errors for Apache 2.2) |
| /opt/docker/etc/httpd/global.conf | Global httpd configuration |
| /opt/docker/etc/httpd/main.conf | Main httpd configuration |
| /opt/docker/etc/httpd/php.conf | Deprecated PHP configuration |
| /opt/docker/etc/httpd/vhost.common.conf | Deprecated vhost common include |
| /opt/docker/etc/httpd/vhost.conf | Vhost configuration |
| /opt/docker/etc/httpd/vhost.ssl.conf | Vhost SSL configuration |
| /opt/docker/etc/supervisor.d/httpd.conf | Supervisord configuration file for Apache HTTPD |

HHVM layout

| File/Directory | Description |
|--|---|
| /opt/docker/etc/supervisor.d/hhvm.conf | Supervisord configuration file for HHVM |

2.10 webdevops/hhvm-nginx

deprecated

These image extends webdevops/hhvm with a nginx daemon which is running on port 80 and 443

Uses Supervisord

This image is using supervisor and runs the daemon under user `application` (UID 1000; GID 1000) as default. If the container is started under a different user the daemon will be run under the specified uid.

2.10.1 Docker image tags

| Tag | Distribution name |
|--------------|-------------------|
| ubuntu-14.04 | <i>deprecated</i> |
| ubuntu-16.04 | <i>deprecated</i> |

2.10.2 Environment variables

Base environment variables

| Environment variable | Description | Default |
|-------------------------|------------------------------|------------------------------------|
| LOG_STDOUT | Destination of daemon output | <i>empty</i> (stdout) |
| LOG_STDERR | Destination of daemon errors | <i>empty</i> (stdout) |
| SERVICE_CRON_OPTS | cron daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_DNSMASQ_OPTS | dnsmasq daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_DNSMASQ_USER | dnsmasq effective user | root |
| SERVICE_POSTFIX_OPTS | postfix daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_SSH_OPTS | ssh daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_SUPERVISOR_OPTS | supervisor daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_SUPERVISOR_USER | supervisor effective user | root |
| SERVICE_SYSLOG_OPTS | syslog daemon arguments | <i>empty</i> (when syslog is used) |

Base environment variables

| Environment variable | Description | Default |
|----------------------|-------------------------------|--------------|
| POSTFIX_MYNETWORKS | Postfix mynetworks address | <i>empty</i> |
| POSTFIX_RELAYHOST | Postfix upstream relay server | <i>empty</i> |

Web environment variables

| Environment variable | Description | Default |
|----------------------|-----------------------------|-------------------------------------|
| WEB_DOCUMENT_ROOT | Document root for webserver | /app |
| WEB_DOCUMENT_INDEX | Index document | index.php |
| WEB_ALIAS_DOMAIN | Domain aliases | *.vm |
| WEB_PHP_SOCKET | PHP-FPM socket address | 127.0.0.1:9000 (for php-* images) |
| SERVICE_PHPFPM_OPTS | PHP-FPM command arguments | <i>empty</i> (when php fpm is used) |
| SERVICE_APACHE_OPTS | Apache command arguments | <i>empty</i> (when apache is used) |
| SERVICE_NGINX_OPTS | Nginx command arguments | <i>empty</i> (when nginx is used) |

2.10.3 Customization

Nginx customization

This image has two directories for configuration files which will be automatic loaded.

For global configuration options the directory `/opt/docker/etc/nginx/conf.d` can be used. For vhost configuration options the directory `/opt/docker/etc/nginx/vhost.common.conf` can be used.

Any `*.conf` files inside these directories will be included either global or the vhost section.

2.10.4 Docker image layout

Nginx layout

| File/Directory | Description |
|--|--|
| /opt/docker/etc/nginx/conf.d | Main global configuration directory (automatically included files) |
| /opt/docker/etc/nginx/conf.d/10-php.conf | PHP cgi configuration |
| /opt/docker/etc/nginx/ssl | SSL configuration directory for certifications and keys |
| /opt/docker/etc/nginx/ssl/server.crt | Example SSL certification (*.vm) |
| /opt/docker/etc/nginx/ssl/server.csr | Example SSL certification request (*.vm) |
| /opt/docker/etc/nginx/ssl/server.key | Example SSL key (*.vm) |
| /opt/docker/etc/nginx/vhost.common.d | Vhost configuration directory (automatically included files) |
| /opt/docker/etc/nginx/vhost.common.d/10-location-root.conf | Redirect requests to DOCUMENT_INDEX |
| /opt/docker/etc/nginx/vhost.common.d/10-php.conf | PHP cgi configuration for vhost |
| /opt/docker/etc/nginx/global.conf | Global nginx configuration |
| /opt/docker/etc/nginx/main.conf | Main Nginx configuration |
| /opt/docker/etc/nginx/php.conf | Deprecated PHP configuration |
| /opt/docker/etc/nginx/vhost.common.conf | Deprecated vhost common include |
| /opt/docker/etc/nginx/vhost.conf | Vhost configuration |
| /opt/docker/etc/nginx/vhost.ssl.conf | Vhost SSL configuration |
| /opt/docker/etc/supervisor.d/nginx.conf | Supervisord configuration file for Nginx |

HHVM layout

| File/Directory | Description |
|--|---|
| /opt/docker/etc/supervisor.d/hhvm.conf | Supervisord configuration file for HHVM |

2.11 webdevops/liquibase

The liquibase images are based on `java` with liquibase and mysql driver

2.11.1 Docker image tags

| Tag | Distribution name |
|----------|--|
| latest | Based on official java with mysql support |
| mysql | Based on official java with mysql support |
| postgres | Based on official java with postgres support |

2.11.2 Environment variables

| Environment variable | Description | Default |
|----------------------|-----------------------------|--|
| LIQUIBASE_VERSION | Installed Liquibase version | <i>not changeable</i> |
| LIQUIBASE_DRIVER | Database driver | <i>based on docker tag</i> |
| LIQUIBASE_CLASSPATH | Java class path | <i>based on docker tag</i> |
| LIQUIBASE_URL | DB url | <i>empty</i> (eg. jdbc:mysql://host/app) |
| LIQUIBASE_USERNAME | DB username | <i>empty</i> |
| LIQUIBASE_PASSWORD | DB password | <i>empty</i> |
| LIQUIBASE_CHANGELOG | Changelog file | /liquibase/changelog.xml |
| LIQUIBASE_CONTEXTS | Server contexts | <i>empty</i> |
| LIQUIBASE_OPTS | Additional options | <i>empty</i> |

2.11.3 Usage

MYSQL: Expecting the changelog.xml is inside the current directory the update process can be started with:

```
docker run --rm -v $(pwd):/liquibase/ -e "LIQUIBASE_URL=jdbc:mysql://host/app" -e "LIQUIBASE_USERNAME=root" -e "LIQUIBASE_PASSWORD=root" webdevops/liquibase:mysql update
```

POSTGRES: Expecting the changelog.xml is inside the current directory the update process can be started with:

```
docker run --rm -v $(pwd):/liquibase/ -e "LIQUIBASE_URL=jdbc:postgresql://host:5432/sampled" -e "LIQUIBASE_USERNAME=root" -e "LIQUIBASE_PASSWORD=root" webdevops/liquibase:postgres update
```

2.12 webdevops/liquidsoap

The liquidsoap images are based on webdevops/base with liquidsoap multimedia streaming server with most plugins.

Uses Supervisor

This image is using supervisor and runs the daemon under user `application` (UID 1000; GID 1000) as default. If the container is started under a different user the daemon will be run under the specified uid.

2.12.1 Docker image tags

| Tag | Distribution name |
|--------|--|
| latest | Based on <code>webdevops/base:latest</code> (Ubuntu) |

2.12.2 Environment variables

Base environment variables

| Environment variable | Description | Default |
|-------------------------|------------------------------|------------------------------------|
| LOG_STDOUT | Destination of daemon output | <i>empty</i> (stdout) |
| LOG_STDERR | Destination of daemon errors | <i>empty</i> (stdout) |
| SERVICE_CRON_OPTS | cron daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_DNSMASQ_OPTS | dnsmasq daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_DNSMASQ_USER | dnsmasq effective user | root |
| SERVICE_POSTFIX_OPTS | postfix daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_SSH_OPTS | ssh daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_SUPERVISOR_OPTS | supervisor daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_SUPERVISOR_USER | supervisor effective user | root |
| SERVICE_SYSLOG_OPTS | syslog daemon arguments | <i>empty</i> (when syslog is used) |

Liquisoap environment variables

| Environment variable | Description | Default |
|--|---|---|
| LIQUIDSOAP_USER | Daemon user ID | liquisoap |
| LIQUIDSOAP_TELNET | Open telnet (port 1234) | 1 (enabled) |
| LIQUIDSOAP_SCRIPT | Configuration script for liquisoap | /opt/docker/etc/liquisoap/default.liq |
| LIQUIDSOAP_TEMPLATE | Apply template to config script | 1/opt/docker/etc/liquisoap/default.liq |
| LIQUIDSOAP_STREAM | Input stream (eg. icecast) | http://icecast:8000/live |
| LIQUIDSOAP_PLAYLIST_DEFAULT | Default stream when no other stream is active | audio_to_stereo(single('/opt/docker/etc/liquisoap/default.mp3')) |
| LIQUIDSOAP_PLAYLIST_DAY | Daytime stream/playlist | playlist('/opt/docker/etc/liquisoap/playlist-day.pls') |
| LIQUIDSOAP_PLAYLIST_DAY_TIME | Time range for day playlist | TIME RANGE |
| LIQUIDSOAP_PLAYLIST_NIGHT | Nighttime stream/playlist | playlist('/opt/docker/etc/liquisoap/playlist-night.pls') |
| LIQUIDSOAP_PLAYLIST_NIGHT_TIME | Time range for night playlist | TIME RANGE |
| LIQUIDSOAP_OUTPUT | Output stream (eg. icecast) | output.icecast(%mp3(bitrate=128),host='localhost',port=8000,password='secretpassword',mount='liquisoap-128',name=META_name,genre=META_genre,url=META_url,description=META_desc,ALL_input) |
| LIQUIDSOAP_OUTPUT_1 ... LIQUIDSOAP_OUTPUT_20 | More output stream lines | empty |
| LIQUIDSOAP_METADATA | Station name | Liquisoap Docker |
| LIQUIDSOAP_METADATA_GENRE | Station genre | empty |
| LIQUIDSOAP_METADATA_URL | Station url | empty |
| LIQUIDSOAP_METADATA_DESCRIPTION | Station description | empty |

2.13 webdevops/mail-sandbox

This image extends `webdevops/base` with a postfix daemon which is running on port 25 and dovecot on IMAP.

This images catches all emails sent to it and stores them locally. These mails are available via IMAP and web (roundcube)

Uses Supervisor

This image is using supervisor and runs the daemon under user `application` (UID 1000; GID 1000) as default. If the container is started under a different user the daemon will be run under the specified uid.

2.13.1 Docker image tags

| Tag | Distribution name |
|--------|---------------------------|
| latest | Ubuntu 18.04 xenial (LTS) |

2.13.2 Environment variables

Base environment variables

| Environment variable | Description | Default |
|-------------------------|------------------------------|------------------------------------|
| LOG_STDOUT | Destination of daemon output | <i>empty</i> (stdout) |
| LOG_STDERR | Destination of daemon errors | <i>empty</i> (stdout) |
| SERVICE_CRON_OPTS | cron daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_DNSMASQ_OPTS | dnsmasq daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_DNSMASQ_USER | dnsmasq effective user | root |
| SERVICE_POSTFIX_OPTS | postfix daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_SSH_OPTS | ssh daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_SUPERVISOR_OPTS | supervisor daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_SUPERVISOR_USER | supervisor effective user | root |
| SERVICE_SYSLOG_OPTS | syslog daemon arguments | <i>empty</i> (when syslog is used) |

Base environment variables

| Environment variable | Description | Default |
|----------------------|-------------------------------|--------------|
| POSTFIX_MYNETWORKS | Postfix mynetworks address | <i>empty</i> |
| POSTFIX_RELAYHOST | Postfix upstream relay server | <i>empty</i> |

Mail sandbox environment variables

| Environment variable | Description | Default |
|----------------------|--------------------|---------|
| MAILBOX_USERNAME | IMAP user | dev |
| MAILBOX_PASSWORD | IMAP user password | dev |

2.13.3 Docker image layout

2.14 webdevops/nginx

This image extends `webdevops/base` with a `nginx` daemon which is running on port 80 and 443

Uses Supervisor

This image is using supervisor and runs the daemon under user `application` (UID 1000; GID 1000) as default. If the container is started under a different user the daemon will be run under the specified uid.

2.14.1 Docker image tags

| Tag | Distribution name |
|---------------------------|-------------------|
| <code>alpine</code> | Alpine |
| <code>alpine-3</code> | <i>deprecated</i> |
| <code>ubuntu-12.04</code> | <i>deprecated</i> |
| <code>ubuntu-14.04</code> | <i>deprecated</i> |
| <code>ubuntu-15.04</code> | <i>deprecated</i> |
| <code>ubuntu-15.10</code> | <i>deprecated</i> |
| <code>ubuntu-16.04</code> | <i>deprecated</i> |
| <code>debian-7</code> | <i>deprecated</i> |
| <code>debian-8</code> | <i>deprecated</i> |
| <code>debian-9</code> | <i>deprecated</i> |
| <code>centos-7</code> | |

2.14.2 Environment variables

Base environment variables

| Environment variable | Description | Default |
|--------------------------------------|------------------------------|------------------------------------|
| <code>LOG_STDOUT</code> | Destination of daemon output | <i>empty</i> (stdout) |
| <code>LOG_STDERR</code> | Destination of daemon errors | <i>empty</i> (stdout) |
| <code>SERVICE_CRON_OPTS</code> | cron daemon arguments | <i>empty</i> (when syslog is used) |
| <code>SERVICE_DNSMASQ_OPTS</code> | dnsmasq daemon arguments | <i>empty</i> (when syslog is used) |
| <code>SERVICE_DNSMASQ_USER</code> | dnsmasq effective user | root |
| <code>SERVICE_POSTFIX_OPTS</code> | postfix daemon arguments | <i>empty</i> (when syslog is used) |
| <code>SERVICE_SSH_OPTS</code> | ssh daemon arguments | <i>empty</i> (when syslog is used) |
| <code>SERVICE_SUPERVISOR_OPTS</code> | supervisor daemon arguments | <i>empty</i> (when syslog is used) |
| <code>SERVICE_SUPERVISOR_USER</code> | supervisor effective user | root |
| <code>SERVICE_SYSLOG_OPTS</code> | syslog daemon arguments | <i>empty</i> (when syslog is used) |

Web environment variables

| Environment variable | Description | Default |
|----------------------|-----------------------------|-----------------------------------|
| WEB_DOCUMENT_ROOT | Document root for webserver | /app |
| WEB_DOCUMENT_INDEX | Index document | index.php |
| WEB_ALIAS_DOMAIN | Domain aliases | *.vm |
| WEB_PHP_SOCKET | PHP-FPM socket address | 127.0.0.1:9000 (for php-* images) |
| SERVICE_PHPFPM_OPTS | PHP-FPM command arguments | empty (when php fpm is used) |
| SERVICE_APACHE_OPTS | Apache command arguments | empty (when apache is used) |
| SERVICE_NGINX_OPTS | Nginx command arguments | empty (when nginx is used) |

2.14.3 Customization

Nginx customization

This image has two directories for configuration files which will be automatic loaded.

For global configuration options the directory `/opt/docker/etc/nginx/conf.d` can be used. For vhost configuration options the directory `/opt/docker/etc/nginx/vhost.common.conf` can be used.

Any `*.conf` files inside these directories will be included either global or the vhost section.

2.14.4 Docker image layout

Nginx layout

| File/Directory | Description |
|---|--|
| <code>/opt/docker/etc/nginx/conf.d</code> | Main global configuration directory (automatically included files) |
| <code>/opt/docker/etc/nginx/conf.d/10-php.conf</code> | PHP cgi configuration |
| <code>/opt/docker/etc/nginx/ssl</code> | SSL configuration directory for certifications and keys |
| <code>/opt/docker/etc/nginx/ssl/server.crt</code> | Example SSL certification (*.vm) |
| <code>/opt/docker/etc/nginx/ssl/server.csr</code> | Example SSL certification request (*.vm) |
| <code>/opt/docker/etc/nginx/ssl/server.key</code> | Example SSL key (*.vm) |
| <code>/opt/docker/etc/nginx/vhost.common.d</code> | Vhost configuration directory (automatically included files) |
| <code>/opt/docker/etc/nginx/vhost.common.d/10-location-root.conf</code> | Redirect requests to DOCUMENT_INDEX |
| <code>/opt/docker/etc/nginx/vhost.common.d/10-php.conf</code> | PHP cgi configuration for vhost |
| <code>/opt/docker/etc/nginx/global.conf</code> | Global nginx configuration |
| <code>/opt/docker/etc/nginx/main.conf</code> | Main Nginx configuration |
| <code>/opt/docker/etc/nginx/php.conf</code> | Deprecated PHP configuration |
| <code>/opt/docker/etc/nginx/vhost.common.conf</code> | Deprecated vhost common include |
| <code>/opt/docker/etc/nginx/vhost.conf</code> | Vhost configuration |
| <code>/opt/docker/etc/nginx/vhost.ssl.conf</code> | Vhost SSL configuration |
| <code>/opt/docker/etc/supervisor.d/nginx.conf</code> | Supervisord configuration file for Nginx |

2.15 webdevops/nginx-dev

This image extends `webdevops/base` with a `nginx` daemon which is running on port 80 and 443

Uses Supervisor

This image is using supervisor and runs the daemon under user `application` (UID 1000; GID 1000) as default. If the container is started under a different user the daemon will be run under the specified uid.

Attention: Webserver is running development mode, assets and resource files will be send without caching to browser!

2.15.1 Docker image tags

| Tag | Distribution name |
|---------------------------|-------------------|
| <code>alpine</code> | Alpine |
| <code>alpine-3</code> | <i>deprecated</i> |
| <code>ubuntu-12.04</code> | <i>deprecated</i> |
| <code>ubuntu-14.04</code> | <i>deprecated</i> |
| <code>ubuntu-15.04</code> | <i>deprecated</i> |
| <code>ubuntu-15.10</code> | <i>deprecated</i> |
| <code>ubuntu-16.04</code> | <i>deprecated</i> |
| <code>debian-7</code> | <i>deprecated</i> |
| <code>debian-8</code> | <i>deprecated</i> |
| <code>debian-9</code> | <i>deprecated</i> |
| <code>centos-7</code> | |

2.15.2 Environment variables

Base environment variables

| Environment variable | Description | Default |
|--------------------------------------|------------------------------|------------------------------------|
| <code>LOG_STDOUT</code> | Destination of daemon output | <i>empty</i> (stdout) |
| <code>LOG_STDERR</code> | Destination of daemon errors | <i>empty</i> (stdout) |
| <code>SERVICE_CRON_OPTS</code> | cron daemon arguments | <i>empty</i> (when syslog is used) |
| <code>SERVICE_DNSMASQ_OPTS</code> | dnsmasq daemon arguments | <i>empty</i> (when syslog is used) |
| <code>SERVICE_DNSMASQ_USER</code> | dnsmasq effective user | <code>root</code> |
| <code>SERVICE_POSTFIX_OPTS</code> | postfix daemon arguments | <i>empty</i> (when syslog is used) |
| <code>SERVICE_SSH_OPTS</code> | ssh daemon arguments | <i>empty</i> (when syslog is used) |
| <code>SERVICE_SUPERVISOR_OPTS</code> | supervisor daemon arguments | <i>empty</i> (when syslog is used) |
| <code>SERVICE_SUPERVISOR_USER</code> | supervisor effective user | <code>root</code> |
| <code>SERVICE_SYSLOG_OPTS</code> | syslog daemon arguments | <i>empty</i> (when syslog is used) |

Web development environment variables

| Environment variable | Description | Default |
|----------------------|---|---|
| WEB_DOCUMENT_ROOT | Document root for webserver | /app |
| WEB_DOCUMENT_INDEX | Index document | index.php |
| WEB_ALIAS_DOMAINS | Domain aliases | *.vm |
| WEB_PHP_SOCKET | PHP-FPM socket address | 127.0.0.1:9000 (for php-* images) |
| WEB_PHP_TIMEOUT | Webserver PHP request timeout | 600 |
| WEB_NO_CACHE_PATTERN | Regex of files which should be delivered by webserver as non cacheable to browser | \. (css js gif png jpg svg json xml) \$ |

2.15.3 Customization

Ngix customization

This image has two directories for configuration files which will be automatic loaded.

For global configuration options the directory `/opt/docker/etc/nginx/conf.d` can be used. For vhost configuration options the directory `/opt/docker/etc/nginx/vhost.common.conf` can be used.

Any `*.conf` files inside these direcories will be included either global or the vhost section.

2.15.4 Docker image layout

Ngix layout

| File/Directory | Description |
|---|--|
| <code>/opt/docker/etc/nginx/conf.d</code> | Main global configuration directory (automatically included files) |
| <code>/opt/docker/etc/nginx/conf.d/10-php.conf</code> | PHP cgi configuration |
| <code>/opt/docker/etc/nginx/ssl</code> | SSL configuration directory for certifications and keys |
| <code>/opt/docker/etc/nginx/ssl/server.crt</code> | Example SSL certification (*.vm) |
| <code>/opt/docker/etc/nginx/ssl/server.csr</code> | Example SSL certification request (*.vm) |
| <code>/opt/docker/etc/nginx/ssl/server.key</code> | Example SSL key (*.vm) |
| <code>/opt/docker/etc/nginx/vhost.common.d</code> | Vhost configuration directory (automatically included files) |
| <code>/opt/docker/etc/nginx/vhost.common.d/10-location-root.conf</code> | Redirect requests to DOCUMENT_INDEX |
| <code>/opt/docker/etc/nginx/vhost.common.d/10-php.conf</code> | PHP cgi configuration for vhost |
| <code>/opt/docker/etc/nginx/global.conf</code> | Global nginx configuration |
| <code>/opt/docker/etc/nginx/main.conf</code> | Main Ngix configuration |
| <code>/opt/docker/etc/nginx/php.conf</code> | Deprecated PHP configuration |
| <code>/opt/docker/etc/nginx/vhost.common.conf</code> | Deprecated vhost common include |
| <code>/opt/docker/etc/nginx/vhost.conf</code> | Vhost configuration |
| <code>/opt/docker/etc/nginx/vhost.ssl.conf</code> | Vhost SSL configuration |
| <code>/opt/docker/etc/supervisor.d/nginx.conf</code> | Supervisord configuration file for Ngix |

PHP layout

| File/Directory | Description |
|---|---|
| /opt/docker/etc/php/php.webdevops.ini | PHP settings from WebDevOps image |
| /opt/docker/etc/php/php.ini | php.ini for custom settings |
| /opt/docker/etc/php/fpm/php-fpm.conf | PHP-FPM main configuration file |
| /opt/docker/etc/php/fpm/pool.d/application.conf | Application PHP-FPM pool configuration file |
| /opt/docker/etc/supervisor.d/php-fpm.conf | Supervisord configuration file for PHP-FPM |

2.16 webdevops/php

The php images are based on `webdevops/base-app` with PHP cli and PHP-FPM. PHP-FPM is running on port 9000.

Uses Supervisord

This image is using supervisor and runs the daemon under user `application` (UID 1000; GID 1000) as default. If the container is started under a different user the daemon will be run under the specified uid.

2.16.1 Docker image tags

| Tag | Distribution name | PHP Version |
|----------------|--------------------------------------|--------------------|
| 5.6 | <i>customized official php image</i> | PHP 5.6 |
| 7.0 | <i>customized official php image</i> | PHP 7.0 |
| 7.1 | <i>customized official php image</i> | PHP 7.1 |
| 7.2 | <i>customized official php image</i> | PHP 7.2 |
| 7.3 | <i>customized official php image</i> | PHP 7.3 |
| 7.4 | <i>customized official php image</i> | PHP 7.4 |
| 7.1-alpine | <i>customized official php image</i> | PHP 7.1 |
| 7.2-alpine | <i>customized official php image</i> | PHP 7.2 |
| 7.3-alpine | <i>customized official php image</i> | PHP 7.3 |
| 7.4-alpine | <i>customized official php image</i> | PHP 7.4 |
| alpine | <i>deprecated</i> | PHP 7.x |
| alpine-php7 | <i>deprecated</i> | PHP 7.x |
| alpine-php5 | <i>deprecated</i> | PHP 5.6 |
| alpine-3 | <i>deprecated</i> | PHP 5.6 |
| alpine-3-php7 | <i>deprecated</i> | PHP 7.x |
| ubuntu-12.04 | <i>deprecated</i> | PHP 5.3 |
| ubuntu-14.04 | <i>deprecated</i> | PHP 5.5 |
| ubuntu-15.04 | <i>deprecated</i> | PHP 5.6 |
| ubuntu-15.10 | <i>deprecated</i> | PHP 5.6 |
| ubuntu-16.04 | <i>deprecated</i> | PHP 7.0 |
| debian-7 | <i>deprecated</i> | PHP 5.4 |
| debian-8 | <i>deprecated</i> | PHP 5.6 |
| debian-8-php7 | <i>deprecated</i> | PHP 7.x (via sury) |
| debian-9 | <i>deprecated</i> | PHP 7.0 |
| centos-7 | | PHP 5.4 |
| centos-7-php56 | | PHP 5.6 |
| centos-7-php7 | | PHP 7.0 |

2.16.2 Environment variables

Base environment variables

| Environment variable | Description | Default |
|-------------------------|------------------------------|------------------------------------|
| LOG_STDOUT | Destination of daemon output | <i>empty</i> (stdout) |
| LOG_STDERR | Destination of daemon errors | <i>empty</i> (stdout) |
| SERVICE_CRON_OPTS | cron daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_DNSMASQ_OPTS | dnsmasq daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_DNSMASQ_USER | dnsmasq effective user | root |
| SERVICE_POSTFIX_OPTS | postfix daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_SSH_OPTS | ssh daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_SUPERVISOR_OPTS | supervisor daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_SUPERVISOR_USER | supervisor effective user | root |
| SERVICE_SYSLOG_OPTS | syslog daemon arguments | <i>empty</i> (when syslog is used) |

Base environment variables

| Environment variable | Description | Default |
|----------------------|-------------------------------|--------------|
| POSTFIX_MYNETWORKS | Postfix mynetworks address | <i>empty</i> |
| POSTFIX_RELAYHOST | Postfix upstream relay server | <i>empty</i> |

PHP modules

As we build our images containing almost every PHP module and having it activated by default, you might want to deactivate some.

You can specify a comma-separated list of unwanted modules as dynamic env variable `PHP_DISMOD`, e.g. `PHP_DISMOD=ioncube,redis`.

PHP.ini variables

You can specify eg. `php.memory_limit=256M` as dynamic env variable which will set `memory_limit = 256M` as php setting.

| Environment variable | Description | Default |
|-------------------------------------|--|---------|
| <code>php.{setting-key}</code> | Sets the <code>{setting-key}</code> as php setting | |
| PHP_DATE_TIMEZONE | <code>date.timezone</code> | UTC |
| PHP_DISPLAY_ERRORS | <code>display_errors</code> | 0 |
| PHP_MEMORY_LIMIT | <code>memory_limit</code> | 512M |
| PHP_MAX_EXECUTION_TIME | <code>max_execution_time</code> | 300 |
| PHP_POST_MAX_SIZE | <code>post_max_size</code> | 50M |
| PHP_UPLOAD_MAX_FILESIZE | <code>upload_max_filesize</code> | 50M |
| PHP_OPCACHE_MEMORY_CONSUMPTION | <code>opcache.memory_consumption</code> | 256 |
| PHP_OPCACHE_MAX_ACCELERATED_FILES | <code>opcache.max_accelerated_files</code> | 7963 |
| PHP_OPCACHE_VALIDATE_TIMESTAMPS | <code>opcache.validate_timestamps</code> | default |
| PHP_OPCACHE_REVALIDATE_FREQ | <code>opcache.revalidate_freq</code> | default |
| PHP_OPCACHE_INTERNED_STRINGS_BUFFER | <code>opcache.interned_strings_buffer</code> | 16 |

PHP FPM variables

You can specify eg. `fpm.pool.pm.max_requests=1000` as dyanmic env variable which will sets `pm.max_requests = 1000` as fpm pool setting. The prefix `fpm.pool` is for pool settings and `fpm.global` for global master process settings.

| Environment variable | Description | Default |
|-------------------------------|---|----------------------|
| fpm.global. {setting-key} | Sets the {setting-key} as fpm global setting for the master process | |
| fpm.pool. {setting-key} | Sets the {setting-key} as fpm pool setting | |
| FPM_PROCESS_MAX | process.max | distribution default |
| FPM_PM_MAX_CHILDREN | pm.max_children | distribution default |
| FPM_PM_START_SERVERS | pm.start_servers | distribution default |
| FPM_PM_MIN_SPARE_SERVERS | pm.min_spare_servers | distribution default |
| FPM_PM_MAX_SPARE_SERVERS | pm.max_spare_servers | distribution default |
| FPM_PROCESS_IDLE_TIMEOUT | pm.process_idle_timeout | distribution default |
| FPM_MAX_REQUESTS | pm.max_requests | distribution default |
| FPM_REQUEST_TERMINATE_TIMEOUT | request_terminate_timeout | distribution default |
| FPM_RLIMIT_FILES | rlimit_files | distribution default |
| FPM_RLIMIT_CORE | rlimit_core | distribution default |

2.16.3 Customization

PHP customization

For customization a placeholder `/opt/docker/etc/php/php.ini` is available which will be loaded as last configuration file. All settings can be overwritten in this ini file.

Either use COPY inside your Dockerfile to overwrite this file or use RUN `echo memory_limit = 128 M >> /opt/docker/etc/php/php.ini` to set specific php.ini values.

2.16.4 Docker image layout

PHP layout

| File/Directory | Description |
|--|---|
| <code>/opt/docker/etc/php/php.webdevops.ini</code> | PHP settings from WebDevOps image |
| <code>/opt/docker/etc/php/php.ini</code> | php.ini for custom settings |
| <code>/opt/docker/etc/php/fpm/php-fpm.conf</code> | PHP-FPM main configuration file |
| <code>/opt/docker/etc/php/fpm/pool.d/application.conf</code> | Application PHP-FPM pool configuration file |
| <code>/opt/docker/etc/supervisor.d/php-fpm.conf</code> | Supervisord configuration file for PHP-FPM |

2.17 webdevops/php-apache

These image extends `webdevops/php` with a apache daemon which is running on port 80 and 443

Uses Supervisor

This image is using supervisor and runs the daemon under user `application` (UID 1000; GID 1000) as default. If the container is started under a different user the daemon will be run under the specified uid.

2.17.1 Docker image tags

| Tag | Distribution name | PHP Version |
|----------------|--------------------------------------|--------------------|
| 5.6 | <i>customized official php image</i> | PHP 5.6 |
| 7.0 | <i>customized official php image</i> | PHP 7.0 |
| 7.1 | <i>customized official php image</i> | PHP 7.1 |
| 7.2 | <i>customized official php image</i> | PHP 7.2 |
| 7.3 | <i>customized official php image</i> | PHP 7.3 |
| 7.4 | <i>customized official php image</i> | PHP 7.4 |
| 7.1-alpine | <i>customized official php image</i> | PHP 7.1 |
| 7.2-alpine | <i>customized official php image</i> | PHP 7.2 |
| 7.3-alpine | <i>customized official php image</i> | PHP 7.3 |
| 7.4-alpine | <i>customized official php image</i> | PHP 7.4 |
| alpine | <i>deprecated</i> | PHP 7.x |
| alpine-php7 | <i>deprecated</i> | PHP 7.x |
| alpine-php5 | <i>deprecated</i> | PHP 5.6 |
| alpine-3 | <i>deprecated</i> | PHP 5.6 |
| alpine-3-php7 | <i>deprecated</i> | PHP 7.x |
| ubuntu-12.04 | <i>deprecated</i> | PHP 5.3 |
| ubuntu-14.04 | <i>deprecated</i> | PHP 5.5 |
| ubuntu-15.04 | <i>deprecated</i> | PHP 5.6 |
| ubuntu-15.10 | <i>deprecated</i> | PHP 5.6 |
| ubuntu-16.04 | <i>deprecated</i> | PHP 7.0 |
| debian-7 | <i>deprecated</i> | PHP 5.4 |
| debian-8 | <i>deprecated</i> | PHP 5.6 |
| debian-8-php7 | <i>deprecated</i> | PHP 7.x (via sury) |
| debian-9 | <i>deprecated</i> | PHP 7.0 |
| centos-7 | | PHP 5.4 |
| centos-7-php56 | | PHP 5.6 |
| centos-7-php7 | | PHP 7.0 |

2.17.2 Environment variables

Base environment variables

| Environment variable | Description | Default |
|-------------------------|------------------------------|------------------------------------|
| LOG_STDOUT | Destination of daemon output | <i>empty</i> (stdout) |
| LOG_STDERR | Destination of daemon errors | <i>empty</i> (stdout) |
| SERVICE_CRON_OPTS | cron daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_DNSMASQ_OPTS | dnsmasq daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_DNSMASQ_USER | dnsmasq effective user | root |
| SERVICE_POSTFIX_OPTS | postfix daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_SSH_OPTS | ssh daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_SUPERVISOR_OPTS | supervisor daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_SUPERVISOR_USER | supervisor effective user | root |
| SERVICE_SYSLOG_OPTS | syslog daemon arguments | <i>empty</i> (when syslog is used) |

Base environment variables

| Environment variable | Description | Default |
|----------------------|-------------------------------|--------------|
| POSTFIX_MYNETWORKS | Postfix mynetworks address | <i>empty</i> |
| POSTFIX_RELAYHOST | Postfix upstream relay server | <i>empty</i> |

Web environment variables

| Environment variable | Description | Default |
|----------------------|-----------------------------|-------------------------------------|
| WEB_DOCUMENT_ROOT | Document root for webserver | /app |
| WEB_DOCUMENT_INDEX | Index document | index.php |
| WEB_ALIAS_DOMAIN | Domain aliases | *.vm |
| WEB_PHP_SOCKET | PHP-FPM socket address | 127.0.0.1:9000 (for php-* images) |
| SERVICE_PHPFPM_OPTS | PHP-FPM command arguments | <i>empty</i> (when php fpm is used) |
| SERVICE_APACHE_OPTS | Apache command arguments | <i>empty</i> (when apache is used) |
| SERVICE_NGINX_OPTS | Nginx command arguments | <i>empty</i> (when nginx is used) |

PHP modules

As we build our images containing almost every PHP module and having it activated by default, you might want to deactivate some.

You can specify a comma-separated list of unwanted modules as dynamic env variable `PHP_DISMOD`, e.g. `PHP_DISMOD=ioncube,redis`.

PHP.ini variables

You can specify eg. `php.memory_limit=256M` as dynamic env variable which will set `memory_limit = 256M` as php setting.

| Environment variable | Description | Default |
|-------------------------------------|---------------------------------------|---------|
| php.{setting-key} | Sets the {setting-key} as php setting | |
| PHP_DATE_TIMEZONE | date.timezone | UTC |
| PHP_DISPLAY_ERRORS | display_errors | 0 |
| PHP_MEMORY_LIMIT | memory_limit | 512M |
| PHP_MAX_EXECUTION_TIME | max_execution_time | 300 |
| PHP_POST_MAX_SIZE | post_max_size | 50M |
| PHP_UPLOAD_MAX_FILESIZE | upload_max_filesize | 50M |
| PHP_OPCACHE_MEMORY_CONSUMPTION | opcache.memory_consumption | 256 |
| PHP_OPCACHE_MAX_ACCELERATED_FILES | opcache.max_accelerated_files | 7963 |
| PHP_OPCACHE_VALIDATE_TIMESTAMPS | opcache.validate_timestamps | default |
| PHP_OPCACHE_REVALIDATE_FREQ | opcache.revalidate_freq | default |
| PHP_OPCACHE_INTERNED_STRINGS_BUFFER | opcache.interned_strings_buffer | 16 |

PHP FPM variables

You can specify eg. `fpm.pool.pm.max_requests=1000` as dyanmic env variable which will sets `pm.max_requests = 1000` as fpm pool setting. The prefix `fpm.pool` is for pool settings and `fpm.global` for global master process settings.

| Environment variable | Description | Default |
|-------------------------------|---|----------------------|
| fpm.global. {setting-key} | Sets the {setting-key} as fpm global setting for the master process | |
| fpm.pool. {setting-key} | Sets the {setting-key} as fpm pool setting | |
| FPM_PROCESS_MAX | process.max | distribution default |
| FPM_PM_MAX_CHILDREN | pm.max_children | distribution default |
| FPM_PM_START_SERVERS | pm.start_servers | distribution default |
| FPM_PM_MIN_SPARE_SERVERS | pm.min_spare_servers | distribution default |
| FPM_PM_MAX_SPARE_SERVERS | pm.max_spare_servers | distribution default |
| FPM_PROCESS_IDLE_TIMEOUT | pm.process_idle_timeout | distribution default |
| FPM_MAX_REQUESTS | pm.max_requests | distribution default |
| FPM_REQUEST_TERMINATE_TIMEOUT | request_terminate_timeout | distribution default |
| FPM_RLIMIT_FILES | rlimit_files | distribution default |
| FPM_RLIMIT_CORE | rlimit_core | distribution default |

2.17.3 Customization

PHP customization

For customization a placeholder `/opt/docker/etc/php/php.ini` is available which will be loaded as last configuration file. All settings can be overwritten in this ini file.

Either use `COPY` inside your Dockerfile to overwrite this file or use `RUN echo memory_limit = 128 M >> /opt/docker/etc/php/php.ini` to set specific `php.ini` values.

Apache customization

This image has two directories for configuration files which will be automatic loaded.

For global configuration options the directory `/opt/docker/etc/httpd/conf.d` can be used. For vhost configuration options the directory `/opt/docker/etc/httpd/vhost.common.d` can be used.

Any `*.conf` files inside these directories will be included either global or the vhost section.

2.17.4 Docker image layout

Apache layout

| File/Directory | Description |
|---|--|
| <code>/opt/docker/etc/httpd/conf.d</code> | Main global configuration directory (automatically included files) |
| <code>/opt/docker/etc/httpd/conf.d/10-php.conf</code> | PHP cgi configuration |
| <code>/opt/docker/etc/httpd/conf.d/10-error-document.conf</code> | Error document configuration |
| <code>/opt/docker/etc/httpd/conf.d/10-log.conf</code> | Log configuration |
| <code>/opt/docker/etc/httpd/conf.d/10-server.conf</code> | Basic server configuration |
| <code>/opt/docker/etc/httpd/ssl</code> | SSL configuration directory for certifications and keys |
| <code>/opt/docker/etc/httpd/ssl/server.crt</code> | Example SSL certification (*.vm) |
| <code>/opt/docker/etc/httpd/ssl/server.csr</code> | Example SSL certification request (*.vm) |
| <code>/opt/docker/etc/httpd/ssl/server.key</code> | Example SSL key (*.vm) |
| <code>/opt/docker/etc/httpd/vhost.common.d</code> | Vhost configuration directory (automatically included files) |
| <code>/opt/docker/etc/httpd/vhost.common.d/01-boilerplate.conf</code> | Placeholder configuration file (prevent include errors for Apache 2.2) |
| <code>/opt/docker/etc/httpd/global.conf</code> | Global httpd configuration |
| <code>/opt/docker/etc/httpd/main.conf</code> | Main httpd configuration |
| <code>/opt/docker/etc/httpd/php.conf</code> | Deprecated PHP configuration |
| <code>/opt/docker/etc/httpd/vhost.common.conf</code> | Deprecated vhost common include |
| <code>/opt/docker/etc/httpd/vhost.conf</code> | Vhost configuration |
| <code>/opt/docker/etc/httpd/vhost.ssl.conf</code> | Vhost SSL configuration |
| <code>/opt/docker/etc/supervisor.d/httpd.conf</code> | Supervisord configuration file for Apache HTTPD |

PHP layout

| File/Directory | Description |
|---|---|
| /opt/docker/etc/php/php.webdevops.ini | PHP settings from WebDevOps image |
| /opt/docker/etc/php/php.ini | php.ini for custom settings |
| /opt/docker/etc/php/fpm/php-fpm.conf | PHP-FPM main configuration file |
| /opt/docker/etc/php/fpm/pool.d/application.conf | Application PHP-FPM pool configuration file |
| /opt/docker/etc/supervisor.d/php-fpm.conf | Supervisord configuration file for PHP-FPM |

2.18 webdevops/php-apache-dev

These image extends `webdevops/php-dev` with a apache daemon which is running on port 80 and 443

Uses Supervisord

This image is using supervisor and runs the daemon under user `application` (UID 1000; GID 1000) as default. If the container is started under a different user the daemon will be run under the specified uid.

Attention: PHP is running in development mode. Zend Opcode Cache is set to to revalidate files for best development experience.

Tip: PHP-FPM is accessible by public port 9000

2.18.1 Docker image tags

| Tag | Distribution name | PHP Version |
|----------------|--------------------------------------|--------------------|
| 5.6 | <i>customized official php image</i> | PHP 5.6 |
| 7.0 | <i>customized official php image</i> | PHP 7.0 |
| 7.1 | <i>customized official php image</i> | PHP 7.1 |
| 7.2 | <i>customized official php image</i> | PHP 7.2 |
| 7.3 | <i>customized official php image</i> | PHP 7.3 |
| 7.4 | <i>customized official php image</i> | PHP 7.4 |
| 7.1-alpine | <i>customized official php image</i> | PHP 7.1 |
| 7.2-alpine | <i>customized official php image</i> | PHP 7.2 |
| 7.3-alpine | <i>customized official php image</i> | PHP 7.3 |
| 7.4-alpine | <i>customized official php image</i> | PHP 7.4 |
| alpine | <i>deprecated</i> | PHP 7.x |
| alpine-php7 | <i>deprecated</i> | PHP 7.x |
| alpine-php5 | <i>deprecated</i> | PHP 5.6 |
| alpine-3 | <i>deprecated</i> | PHP 5.6 |
| alpine-3-php7 | <i>deprecated</i> | PHP 7.x |
| ubuntu-12.04 | <i>deprecated</i> | PHP 5.3 |
| ubuntu-14.04 | <i>deprecated</i> | PHP 5.5 |
| ubuntu-15.04 | <i>deprecated</i> | PHP 5.6 |
| ubuntu-15.10 | <i>deprecated</i> | PHP 5.6 |
| ubuntu-16.04 | <i>deprecated</i> | PHP 7.0 |
| debian-7 | <i>deprecated</i> | PHP 5.4 |
| debian-8 | <i>deprecated</i> | PHP 5.6 |
| debian-8-php7 | <i>deprecated</i> | PHP 7.x (via sury) |
| debian-9 | <i>deprecated</i> | PHP 7.0 |
| centos-7 | | PHP 5.4 |
| centos-7-php56 | | PHP 5.6 |
| centos-7-php7 | | PHP 7.0 |

2.18.2 Environment variables

Base environment variables

| Environment variable | Description | Default |
|-------------------------|------------------------------|------------------------------------|
| LOG_STDOUT | Destination of daemon output | <i>empty</i> (stdout) |
| LOG_STDERR | Destination of daemon errors | <i>empty</i> (stdout) |
| SERVICE_CRON_OPTS | cron daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_DNSMASQ_OPTS | dnsmasq daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_DNSMASQ_USER | dnsmasq effective user | root |
| SERVICE_POSTFIX_OPTS | postfix daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_SSH_OPTS | ssh daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_SUPERVISOR_OPTS | supervisor daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_SUPERVISOR_USER | supervisor effective user | root |
| SERVICE_SYSLOG_OPTS | syslog daemon arguments | <i>empty</i> (when syslog is used) |

Base environment variables

| Environment variable | Description | Default |
|----------------------|-------------------------------|--------------|
| POSTFIX_MYNETWORKS | Postfix mynetworks address | <i>empty</i> |
| POSTFIX_RELAYHOST | Postfix upstream relay server | <i>empty</i> |

PHP modules

As we build our images containing almost every PHP module and having it activated by default, you might want to deactivate some.

You can specify a comma-separated list of unwanted modules as dynamic env variable `PHP_DISMOD`, e.g. `PHP_DISMOD=ioncube,redis`.

PHP.ini variables

You can specify eg. `php.memory_limit=256M` as dynamic env variable which will set `memory_limit = 256M` as php setting.

| Environment variable | Description | Default |
|-------------------------------------|--|---------|
| <code>php.{setting-key}</code> | Sets the <code>{setting-key}</code> as php setting | |
| PHP_DATE_TIMEZONE | <code>date.timezone</code> | UTC |
| PHP_DISPLAY_ERRORS | <code>display_errors</code> | 0 |
| PHP_MEMORY_LIMIT | <code>memory_limit</code> | 512M |
| PHP_MAX_EXECUTION_TIME | <code>max_execution_time</code> | 300 |
| PHP_POST_MAX_SIZE | <code>post_max_size</code> | 50M |
| PHP_UPLOAD_MAX_FILESIZE | <code>upload_max_filesize</code> | 50M |
| PHP_OPCACHE_MEMORY_CONSUMPTION | <code>opcache.memory_consumption</code> | 256 |
| PHP_OPCACHE_MAX_ACCELERATED_FILES | <code>opcache.max_accelerated_files</code> | 7963 |
| PHP_OPCACHE_VALIDATE_TIMESTAMPS | <code>opcache.validate_timestamps</code> | default |
| PHP_OPCACHE_REVALIDATE_FREQ | <code>opcache.revalidate_freq</code> | default |
| PHP_OPCACHE_INTERNED_STRINGS_BUFFER | <code>opcache.interned_strings_buffer</code> | 16 |

PHP FPM variables

You can specify eg. `fpm.pool.pm.max_requests=1000` as dyanmic env variable which will sets `pm.max_requests = 1000` as fpm pool setting. The prefix `fpm.pool` is for pool settings and `fpm.global` for global master process settings.

| Environment variable | Description | Default |
|-------------------------------|---|----------------------|
| fpm.global. {setting-key} | Sets the {setting-key} as fpm global setting for the master process | |
| fpm.pool. {setting-key} | Sets the {setting-key} as fpm pool setting | |
| FPM_PROCESS_MAX | process.max | distribution default |
| FPM_PM_MAX_CHILDREN | pm.max_children | distribution default |
| FPM_PM_START_SERVERS | pm.start_servers | distribution default |
| FPM_PM_MIN_SPARE_SERVERS | pm.min_spare_servers | distribution default |
| FPM_PM_MAX_SPARE_SERVERS | pm.max_spare_servers | distribution default |
| FPM_PROCESS_IDLE_TIMEOUT | pm.process_idle_timeout | distribution default |
| FPM_MAX_REQUESTS | pm.max_requests | distribution default |
| FPM_REQUEST_TERMINATE_TIMEOUT | request_terminate_timeout | distribution default |
| FPM_RLIMIT_FILES | rlimit_files | distribution default |
| FPM_RLIMIT_CORE | rlimit_core | distribution default |

PHP development environment variables

| Environment variable | Description | Default |
|--------------------------------------|--|--|
| WEB_DOCUMENT_ROOT | Document root for webserver | /app |
| WEB_DOCUMENT_INDEX | Index document | index.php |
| WEB_ALIAS_DOMAIN | Domain aliases | *.vm |
| WEB_PHP_SOCKET | PHP-FPM socket address | 127.0.0.1:9000 (for php-* images) |
| WEB_NO_CACHE_PATTERN | RegExp of files which should be delivered by webserver as non cacheable to browser | \.(css js gif png jpg svg json xml) |
| PHP_DEBUGGER | Specifies which php debugger should be active | xdebug (eg. xdebug, blackfire or none) |
| XDEBUG_REMOTE_AUTOSTART | php.ini value for xdebug.remote_autostart | none |
| XDEBUG_REMOTE_CONNECT_BACK | php.ini value for xdebug.remote_connect_back | none |
| XDEBUG_REMOTE_HOST | php.ini value for xdebug.remote_host | none |
| XDEBUG_REMOTE_PORT | php.ini value for xdebug.remote_port | none |
| XDEBUG_MAX_NESTING_LEVEL | php.ini value for xdebug.max_nesting_level | none |
| XDEBUG_IDE_KEY | php.ini value for xdebug.idekey | none |
| XDEBUG_PROFILER_ENABLE | php.ini value for xdebug.profiler_enable | none |
| XDEBUG_PROFILER_ENABLE_TRIGGER | php.ini value for xdebug.profiler_enable_trigger | none |
| XDEBUG_PROFILER_ENABLE_TRIGGER_VALUE | php.ini value for xdebug.profiler_enable_trigger_value | none |
| XDEBUG_PROFILER_OUTPUT_DIR | php.ini value for xdebug.profiler_output_dir | none |
| XDEBUG_PROFILER_OUTPUT_NAME | php.ini value for xdebug.profiler_output_name | none |
| BLACKFIRE_SERVER_ID | php.ini value for blackfire.server_id | none |
| BLACKFIRE_SERVER_TOKEN | php.ini value for blackfire.server_token | none |
| SERVICE_BLACKFIRE_AGENT_ARGS | Blackfire agent command arguments | empty |

2.18.3 Customization

PHP customization

For customization a placeholder `/opt/docker/etc/php/php.ini` is available which will be loaded as last configuration file. All settings can be overwritten in this ini file.

Either use `COPY` inside your Dockerfile to overwrite this file or use `RUN echo memory_limit = 128 M >> /opt/docker/etc/php/php.ini` to set specific php.ini values.

Apache customization

This image has two directories for configuration files which will be automatic loaded.

For global configuration options the directory `/opt/docker/etc/httpd/conf.d` can be used. For vhost configuration options the directory `/opt/docker/etc/httpd/vhost.common.d` can be used.

Any `*.conf` files inside these directories will be included either global or the vhost section.

2.18.4 Docker image layout

Apache layout

| File/Directory | Description |
|---|--|
| <code>/opt/docker/etc/httpd/conf.d</code> | Main global configuration directory (automatically included files) |
| <code>/opt/docker/etc/httpd/conf.d/10-php.conf</code> | PHP cgi configuration |
| <code>/opt/docker/etc/httpd/conf.d/10-error-document.conf</code> | Error document configuration |
| <code>/opt/docker/etc/httpd/conf.d/10-log.conf</code> | Log configuration |
| <code>/opt/docker/etc/httpd/conf.d/10-server.conf</code> | Basic server configuration |
| <code>/opt/docker/etc/httpd/ssl</code> | SSL configuration directory for certifications and keys |
| <code>/opt/docker/etc/httpd/ssl/server.crt</code> | Example SSL certification (*.vm) |
| <code>/opt/docker/etc/httpd/ssl/server.csr</code> | Example SSL certification request (*.vm) |
| <code>/opt/docker/etc/httpd/ssl/server.key</code> | Example SSL key (*.vm) |
| <code>/opt/docker/etc/httpd/vhost.common.d</code> | Vhost configuration directory (automatically included files) |
| <code>/opt/docker/etc/httpd/vhost.common.d/01-boilerplate.conf</code> | Placeholder configuration file (prevent include errors for Apache 2.2) |
| <code>/opt/docker/etc/httpd/global.conf</code> | Global httpd configuration |
| <code>/opt/docker/etc/httpd/main.conf</code> | Main httpd configuration |
| <code>/opt/docker/etc/httpd/php.conf</code> | Deprecated PHP configuration |
| <code>/opt/docker/etc/httpd/vhost.common.conf</code> | Deprecated vhost common include |
| <code>/opt/docker/etc/httpd/vhost.conf</code> | Vhost configuration |
| <code>/opt/docker/etc/httpd/vhost.ssl.conf</code> | Vhost SSL configuration |
| <code>/opt/docker/etc/supervisor.d/httpd.conf</code> | Supervisord configuration file for Apache HTTPD |

PHP layout

| File/Directory | Description |
|--|---|
| <code>/opt/docker/etc/php/php.webdevops.ini</code> | PHP settings from WebDevOps image |
| <code>/opt/docker/etc/php/php.ini</code> | php.ini for custom settings |
| <code>/opt/docker/etc/php/fpm/php-fpm.conf</code> | PHP-FPM main configuration file |
| <code>/opt/docker/etc/php/fpm/pool.d/application.conf</code> | Application PHP-FPM pool configuration file |
| <code>/opt/docker/etc/supervisor.d/php-fpm.conf</code> | Supervisord configuration file for PHP-FPM |

2.19 webdevops/php-dev

This image extends `webdevops/php` with `xdebug` and development tools

Uses Supervisord

This image is using supervisor and runs the daemon under user `application` (UID 1000; GID 1000) as default. If the container is started under a different user the daemon will be run under the specified uid.

Attention: PHP is running in development mode. Zend Opcode Cache is set to to revalidate files for best development experience.

Tip: PHP-FPM is accessible by public port 9000

2.19.1 Docker image tags

| Tag | Distribution name | PHP Version |
|----------------|--------------------------------------|--------------------|
| 5.6 | <i>customized official php image</i> | PHP 5.6 |
| 7.0 | <i>customized official php image</i> | PHP 7.0 |
| 7.1 | <i>customized official php image</i> | PHP 7.1 |
| 7.2 | <i>customized official php image</i> | PHP 7.2 |
| 7.3 | <i>customized official php image</i> | PHP 7.3 |
| 7.4 | <i>customized official php image</i> | PHP 7.4 |
| 7.1-alpine | <i>customized official php image</i> | PHP 7.1 |
| 7.2-alpine | <i>customized official php image</i> | PHP 7.2 |
| 7.3-alpine | <i>customized official php image</i> | PHP 7.3 |
| 7.4-alpine | <i>customized official php image</i> | PHP 7.4 |
| alpine | <i>deprecated</i> | PHP 7.x |
| alpine-php7 | <i>deprecated</i> | PHP 7.x |
| alpine-php5 | <i>deprecated</i> | PHP 5.6 |
| alpine-3 | <i>deprecated</i> | PHP 5.6 |
| alpine-3-php7 | <i>deprecated</i> | PHP 7.x |
| ubuntu-12.04 | <i>deprecated</i> | PHP 5.3 |
| ubuntu-14.04 | <i>deprecated</i> | PHP 5.5 |
| ubuntu-15.04 | <i>deprecated</i> | PHP 5.6 |
| ubuntu-15.10 | <i>deprecated</i> | PHP 5.6 |
| ubuntu-16.04 | <i>deprecated</i> | PHP 7.0 |
| debian-7 | <i>deprecated</i> | PHP 5.4 |
| debian-8 | <i>deprecated</i> | PHP 5.6 |
| debian-8-php7 | <i>deprecated</i> | PHP 7.x (via sury) |
| debian-9 | <i>deprecated</i> | PHP 7.0 |
| centos-7 | | PHP 5.4 |
| centos-7-php56 | | PHP 5.6 |
| centos-7-php7 | | PHP 7.0 |

2.19.2 Environment variables

Base environment variables

| Environment variable | Description | Default |
|-------------------------|------------------------------|------------------------------------|
| LOG_STDOUT | Destination of daemon output | <i>empty</i> (stdout) |
| LOG_STDERR | Destination of daemon errors | <i>empty</i> (stdout) |
| SERVICE_CRON_OPTS | cron daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_DNSMASQ_OPTS | dnsmasq daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_DNSMASQ_USER | dnsmasq effective user | root |
| SERVICE_POSTFIX_OPTS | postfix daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_SSH_OPTS | ssh daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_SUPERVISOR_OPTS | supervisor daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_SUPERVISOR_USER | supervisor effective user | root |
| SERVICE_SYSLOG_OPTS | syslog daemon arguments | <i>empty</i> (when syslog is used) |

Base environment variables

| Environment variable | Description | Default |
|----------------------|-------------------------------|--------------|
| POSTFIX_MYNETWORKS | Postfix mynetworks address | <i>empty</i> |
| POSTFIX_RELAYHOST | Postfix upstream relay server | <i>empty</i> |

PHP modules

As we build our images containing almost every PHP module and having it activated by default, you might want to deactivate some.

You can specify a comma-separated list of unwanted modules as dynamic env variable `PHP_DISMOD`, e.g. `PHP_DISMOD=ioncube,redis`.

PHP.ini variables

You can specify eg. `php.memory_limit=256M` as dynamic env variable which will set `memory_limit = 256M` as php setting.

| Environment variable | Description | Default |
|-------------------------------------|--|---------|
| <code>php.{setting-key}</code> | Sets the {setting-key} as php setting | |
| PHP_DATE_TIMEZONE | <code>date.timezone</code> | UTC |
| PHP_DISPLAY_ERRORS | <code>display_errors</code> | 0 |
| PHP_MEMORY_LIMIT | <code>memory_limit</code> | 512M |
| PHP_MAX_EXECUTION_TIME | <code>max_execution_time</code> | 300 |
| PHP_POST_MAX_SIZE | <code>post_max_size</code> | 50M |
| PHP_UPLOAD_MAX_FILESIZE | <code>upload_max_filesize</code> | 50M |
| PHP_OPCACHE_MEMORY_CONSUMPTION | <code>opcache.memory_consumption</code> | 256 |
| PHP_OPCACHE_MAX_ACCELERATED_FILES | <code>opcache.max_accelerated_files</code> | 7963 |
| PHP_OPCACHE_VALIDATE_TIMESTAMPS | <code>opcache.validate_timestamps</code> | default |
| PHP_OPCACHE_REVALIDATE_FREQ | <code>opcache.revalidate_freq</code> | default |
| PHP_OPCACHE_INTERNED_STRINGS_BUFFER | <code>opcache.interned_strings_buffer</code> | 16 |

PHP FPM variables

You can specify eg. `fpm.pool.pm.max_requests=1000` as dyanmic env variable which will sets `pm.max_requests = 1000` as fpm pool setting. The prefix `fpm.pool` is for pool settings and `fpm.global` for global master process settings.

| Environment variable | Description | Default |
|--|---|----------------------|
| <code>fpm.global.{setting-key}</code> | Sets the {setting-key} as fpm global setting for the master process | |
| <code>fpm.pool.{setting-key}</code> | Sets the {setting-key} as fpm pool setting | |
| <code>FPM_PROCESS_MAX</code> | <code>process.max</code> | distribution default |
| <code>FPM_PM_MAX_CHILDREN</code> | <code>pm.max_children</code> | distribution default |
| <code>FPM_PM_START_SERVERS</code> | <code>pm.start_servers</code> | distribution default |
| <code>FPM_PM_MIN_SPARE_SERVERS</code> | <code>pm.min_spare_servers</code> | distribution default |
| <code>FPM_PM_MAX_SPARE_SERVERS</code> | <code>pm.max_spare_servers</code> | distribution default |
| <code>FPM_PROCESS_IDLE_TIMEOUT</code> | <code>pm.process_idle_timeout</code> | distribution default |
| <code>FPM_MAX_REQUESTS</code> | <code>pm.max_requests</code> | distribution default |
| <code>FPM_REQUEST_TERMINATE_TIMEOUT</code> | <code>request_terminate_timeout</code> | distribution default |
| <code>FPM_RLIMIT_FILES</code> | <code>rlimit_files</code> | distribution default |
| <code>FPM_RLIMIT_CORE</code> | <code>rlimit_core</code> | distribution default |

PHP development environment variables

| Environment variable | Description | Default |
|--------------------------------------|--|--|
| WEB_DOCUMENT_ROOT | Document root for webserver | /app |
| WEB_DOCUMENT_INDEX | Index document | index.php |
| WEB_ALIAS_DOMAIN | Domain aliases | *.vm |
| WEB_PHP_SOCKET | PHP-FPM socket address | 127.0.0.1:9000 (for php-* images) |
| WEB_NO_CACHE_PATTERN | RegExp of files which should be delivered by webserver as non cacheable to browser | \.(css js gif png jpg svg json xml) |
| PHP_DEBUGGER | Specifies which php debugger should be active | xdebug (eg. xdebug, blackfire or none) |
| XDEBUG_REMOTE_AUTOSTART | php.ini value for xdebug.remote_autostart | none |
| XDEBUG_REMOTE_CONNECT_BACK | php.ini value for xdebug.remote_connect_back | none |
| XDEBUG_REMOTE_HOST | php.ini value for xdebug.remote_host | none |
| XDEBUG_REMOTE_PORT | php.ini value for xdebug.remote_port | none |
| XDEBUG_MAX_NESTING_LEVEL | php.ini value for xdebug.max_nesting_level | none |
| XDEBUG_IDE_KEY | php.ini value for xdebug.idekey | none |
| XDEBUG_PROFILER_ENABLE | php.ini value for xdebug.profiler_enable | none |
| XDEBUG_PROFILER_ENABLE_TRIGGER | php.ini value for xdebug.profiler_enable_trigger | none |
| XDEBUG_PROFILER_ENABLE_TRIGGER_VALUE | php.ini value for xdebug.profiler_enable_trigger_value | none |
| XDEBUG_PROFILER_OUTPUT_DIR | php.ini value for xdebug.profiler_output_dir | none |
| XDEBUG_PROFILER_OUTPUT_NAME | php.ini value for xdebug.profiler_output_name | none |
| BLACKFIRE_SERVER_ID | php.ini value for blackfire.server_id | none |
| BLACKFIRE_SERVER_TOKEN | php.ini value for blackfire.server_token | none |
| SERVICE_BLACKFIRE_AGENT_ARGS | Blackfire agent command arguments | empty |

2.19.3 Customization

PHP customization

For customization a placeholder /opt/docker/etc/php/php.ini is available which will be loaded as last configuration file. All settings can be overwritten in this ini file.

Either use COPY inside your Dockerfile to overwrite this file or use RUN echo memory_limit = 128 M >> /opt/docker/etc/php/php.ini to set specific php.ini values.

2.19.4 Docker image layout

PHP layout

| File/Directory | Description |
|---|---|
| /opt/docker/etc/php/php.webdevops.ini | PHP settings from WebDevOps image |
| /opt/docker/etc/php/php.ini | php.ini for custom settings |
| /opt/docker/etc/php/fpm/php-fpm.conf | PHP-FPM main configuration file |
| /opt/docker/etc/php/fpm/pool.d/application.conf | Application PHP-FPM pool configuration file |
| /opt/docker/etc/supervisor.d/php-fpm.conf | Supervisord configuration file for PHP-FPM |

2.20 webdevops/php-nginx

These image extends `webdevops/php` with a `nginx` daemon which is running on port 80 and 443

Uses Supervisord

This image is using `supervisor` and runs the daemon under user `application` (UID 1000; GID 1000) as default. If the container is started under a different user the daemon will be run under the specified `uid`.

2.20.1 Docker image tags

| Tag | Distribution name | PHP Version |
|----------------|--------------------------------------|--------------------|
| 5.6 | <i>customized official php image</i> | PHP 5.6 |
| 7.0 | <i>customized official php image</i> | PHP 7.0 |
| 7.1 | <i>customized official php image</i> | PHP 7.1 |
| 7.2 | <i>customized official php image</i> | PHP 7.2 |
| 7.3 | <i>customized official php image</i> | PHP 7.3 |
| 7.4 | <i>customized official php image</i> | PHP 7.4 |
| 7.1-alpine | <i>customized official php image</i> | PHP 7.1 |
| 7.2-alpine | <i>customized official php image</i> | PHP 7.2 |
| 7.3-alpine | <i>customized official php image</i> | PHP 7.3 |
| 7.4-alpine | <i>customized official php image</i> | PHP 7.4 |
| alpine | <i>deprecated</i> | PHP 7.x |
| alpine-php7 | <i>deprecated</i> | PHP 7.x |
| alpine-php5 | <i>deprecated</i> | PHP 5.6 |
| alpine-3 | <i>deprecated</i> | PHP 5.6 |
| alpine-3-php7 | <i>deprecated</i> | PHP 7.x |
| ubuntu-12.04 | <i>deprecated</i> | PHP 5.3 |
| ubuntu-14.04 | <i>deprecated</i> | PHP 5.5 |
| ubuntu-15.04 | <i>deprecated</i> | PHP 5.6 |
| ubuntu-15.10 | <i>deprecated</i> | PHP 5.6 |
| ubuntu-16.04 | <i>deprecated</i> | PHP 7.0 |
| debian-7 | <i>deprecated</i> | PHP 5.4 |
| debian-8 | <i>deprecated</i> | PHP 5.6 |
| debian-8-php7 | <i>deprecated</i> | PHP 7.x (via sury) |
| debian-9 | <i>deprecated</i> | PHP 7.0 |
| centos-7 | | PHP 5.4 |
| centos-7-php56 | | PHP 5.6 |
| centos-7-php7 | | PHP 7.0 |

2.20.2 Environment variables

Base environment variables

| Environment variable | Description | Default |
|-------------------------|------------------------------|------------------------------------|
| LOG_STDOUT | Destination of daemon output | <i>empty</i> (stdout) |
| LOG_STDERR | Destination of daemon errors | <i>empty</i> (stdout) |
| SERVICE_CRON_OPTS | cron daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_DNSMASQ_OPTS | dnsmasq daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_DNSMASQ_USER | dnsmasq effective user | root |
| SERVICE_POSTFIX_OPTS | postfix daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_SSH_OPTS | ssh daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_SUPERVISOR_OPTS | supervisor daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_SUPERVISOR_USER | supervisor effective user | root |
| SERVICE_SYSLOG_OPTS | syslog daemon arguments | <i>empty</i> (when syslog is used) |

Base environment variables

| Environment variable | Description | Default |
|----------------------|-------------------------------|--------------|
| POSTFIX_MYNETWORKS | Postfix mynetworks address | <i>empty</i> |
| POSTFIX_RELAYHOST | Postfix upstream relay server | <i>empty</i> |

Web environment variables

| Environment variable | Description | Default |
|----------------------|-----------------------------|-------------------------------------|
| WEB_DOCUMENT_ROOT | Document root for webserver | /app |
| WEB_DOCUMENT_INDEX | Index document | index.php |
| WEB_ALIAS_DOMAIN | Domain aliases | *.vm |
| WEB_PHP_SOCKET | PHP-FPM socket address | 127.0.0.1:9000 (for php-* images) |
| SERVICE_PHPFPM_OPTS | PHP-FPM command arguments | <i>empty</i> (when php fpm is used) |
| SERVICE_APACHE_OPTS | Apache command arguments | <i>empty</i> (when apache is used) |
| SERVICE_NGINX_OPTS | Nginx command arguments | <i>empty</i> (when nginx is used) |

PHP modules

As we build our images containing almost every PHP module and having it activated by default, you might want to deactivate some.

You can specify a comma-separated list of unwanted modules as dynamic env variable `PHP_DISMOD`, e.g. `PHP_DISMOD=ioncube,redis`.

PHP.ini variables

You can specify eg. `php.memory_limit=256M` as dynamic env variable which will set `memory_limit = 256M` as php setting.

| Environment variable | Description | Default |
|-------------------------------------|---------------------------------------|---------|
| php.{setting-key} | Sets the {setting-key} as php setting | |
| PHP_DATE_TIMEZONE | date.timezone | UTC |
| PHP_DISPLAY_ERRORS | display_errors | 0 |
| PHP_MEMORY_LIMIT | memory_limit | 512M |
| PHP_MAX_EXECUTION_TIME | max_execution_time | 300 |
| PHP_POST_MAX_SIZE | post_max_size | 50M |
| PHP_UPLOAD_MAX_FILESIZE | upload_max_filesize | 50M |
| PHP_OPCACHE_MEMORY_CONSUMPTION | opcache.memory_consumption | 256 |
| PHP_OPCACHE_MAX_ACCELERATED_FILES | opcache.max_accelerated_files | 7963 |
| PHP_OPCACHE_VALIDATE_TIMESTAMPS | opcache.validate_timestamps | default |
| PHP_OPCACHE_REVALIDATE_FREQ | opcache.revalidate_freq | default |
| PHP_OPCACHE_INTERNED_STRINGS_BUFFER | opcache.interned_strings_buffer | 16 |

PHP FPM variables

You can specify eg. `fpm.pool.pm.max_requests=1000` as dynamic env variable which will set `pm.max_requests = 1000` as fpm pool setting. The prefix `fpm.pool` is for pool settings and `fpm.global` for global master process settings.

| Environment variable | Description | Default |
|-------------------------------|---|----------------------|
| fpm.global. {setting-key} | Sets the {setting-key} as fpm global setting for the master process | |
| fpm.pool. {setting-key} | Sets the {setting-key} as fpm pool setting | |
| FPM_PROCESS_MAX | process.max | distribution default |
| FPM_PM_MAX_CHILDREN | pm.max_children | distribution default |
| FPM_PM_START_SERVERS | pm.start_servers | distribution default |
| FPM_PM_MIN_SPARE_SERVERS | pm.min_spare_servers | distribution default |
| FPM_PM_MAX_SPARE_SERVERS | pm.max_spare_servers | distribution default |
| FPM_PROCESS_IDLE_TIMEOUT | pm.process_idle_timeout | distribution default |
| FPM_MAX_REQUESTS | pm.max_requests | distribution default |
| FPM_REQUEST_TERMINATE_TIMEOUT | request_terminate_timeout | distribution default |
| FPM_RLIMIT_FILES | rlimit_files | distribution default |
| FPM_RLIMIT_CORE | rlimit_core | distribution default |

2.20.3 Customization

PHP customization

For customization a placeholder `/opt/docker/etc/php/php.ini` is available which will be loaded as last configuration file. All settings can be overwritten in this ini file.

Either use `COPY` inside your Dockerfile to overwrite this file or use `RUN echo memory_limit = 128 M >> /opt/docker/etc/php/php.ini` to set specific `php.ini` values.

Ngix customization

This image has two directories for configuration files which will be automatic loaded.

For global configuration options the directory `/opt/docker/etc/nginx/conf.d` can be used. For vhost configuration options the directory `/opt/docker/etc/nginx/vhost.common.conf` can be used.

Any `*.conf` files inside these directories will be included either global or the vhost section.

2.20.4 Docker image layout

Ngix layout

| File/Directory | Description |
|---|--|
| <code>/opt/docker/etc/nginx/conf.d</code> | Main global configuration directory (automatically included files) |
| <code>/opt/docker/etc/nginx/conf.d/10-php.conf</code> | PHP cgi configuration |
| <code>/opt/docker/etc/nginx/ssl</code> | SSL configuration directory for certifications and keys |
| <code>/opt/docker/etc/nginx/ssl/server.crt</code> | Example SSL certification (*.vm) |
| <code>/opt/docker/etc/nginx/ssl/server.csr</code> | Example SSL certification request (*.vm) |
| <code>/opt/docker/etc/nginx/ssl/server.key</code> | Example SSL key (*.vm) |
| <code>/opt/docker/etc/nginx/vhost.common.d</code> | Vhost configuration directory (automatically included files) |
| <code>/opt/docker/etc/nginx/vhost.common.d/10-location-root.conf</code> | Redirect requests to DOCUMENT_INDEX |
| <code>/opt/docker/etc/nginx/vhost.common.d/10-php.conf</code> | PHP cgi configuration for vhost |
| <code>/opt/docker/etc/nginx/global.conf</code> | Global nginx configuration |
| <code>/opt/docker/etc/nginx/main.conf</code> | Main Nginx configuration |
| <code>/opt/docker/etc/nginx/php.conf</code> | Deprecated PHP configuration |
| <code>/opt/docker/etc/nginx/vhost.common.conf</code> | Deprecated vhost common include |
| <code>/opt/docker/etc/nginx/vhost.conf</code> | Vhost configuration |
| <code>/opt/docker/etc/nginx/vhost.ssl.conf</code> | Vhost SSL configuration |
| <code>/opt/docker/etc/supervisor.d/nginx.conf</code> | Supervisord configuration file for Nginx |

PHP layout

| File/Directory | Description |
|---|---|
| /opt/docker/etc/php/php.webdevops.ini | PHP settings from WebDevOps image |
| /opt/docker/etc/php/php.ini | php.ini for custom settings |
| /opt/docker/etc/php/fpm/php-fpm.conf | PHP-FPM main configuration file |
| /opt/docker/etc/php/fpm/pool.d/application.conf | Application PHP-FPM pool configuration file |
| /opt/docker/etc/supervisor.d/php-fpm.conf | Supervisord configuration file for PHP-FPM |

2.21 webdevops/php-nginx-dev

These image extends `webdevops/php-dev` with a `nginx` daemon which is running on port 80 and 443

Uses Supervisord

This image is using `supervisor` and runs the daemon under user `application` (UID 1000; GID 1000) as default. If the container is started under a different user the daemon will be run under the specified `uid`.

Attention: PHP is running in development mode. Zend Opcode Cache is set to to revalidate files for best development experience.

Tip: PHP-FPM is accessible by public port 9000

2.21.1 Docker image tags

| Tag | Distribution name | PHP Version |
|----------------|--------------------------------------|--------------------|
| 5.6 | <i>customized official php image</i> | PHP 5.6 |
| 7.0 | <i>customized official php image</i> | PHP 7.0 |
| 7.1 | <i>customized official php image</i> | PHP 7.1 |
| 7.2 | <i>customized official php image</i> | PHP 7.2 |
| 7.3 | <i>customized official php image</i> | PHP 7.3 |
| 7.4 | <i>customized official php image</i> | PHP 7.4 |
| 7.1-alpine | <i>customized official php image</i> | PHP 7.1 |
| 7.2-alpine | <i>customized official php image</i> | PHP 7.2 |
| 7.3-alpine | <i>customized official php image</i> | PHP 7.3 |
| 7.4-alpine | <i>customized official php image</i> | PHP 7.4 |
| alpine | <i>deprecated</i> | PHP 7.x |
| alpine-php7 | <i>deprecated</i> | PHP 7.x |
| alpine-php5 | <i>deprecated</i> | PHP 5.6 |
| alpine-3 | <i>deprecated</i> | PHP 5.6 |
| alpine-3-php7 | <i>deprecated</i> | PHP 7.x |
| ubuntu-12.04 | <i>deprecated</i> | PHP 5.3 |
| ubuntu-14.04 | <i>deprecated</i> | PHP 5.5 |
| ubuntu-15.04 | <i>deprecated</i> | PHP 5.6 |
| ubuntu-15.10 | <i>deprecated</i> | PHP 5.6 |
| ubuntu-16.04 | <i>deprecated</i> | PHP 7.0 |
| debian-7 | <i>deprecated</i> | PHP 5.4 |
| debian-8 | <i>deprecated</i> | PHP 5.6 |
| debian-8-php7 | <i>deprecated</i> | PHP 7.x (via sury) |
| debian-9 | <i>deprecated</i> | PHP 7.0 |
| centos-7 | | PHP 5.4 |
| centos-7-php56 | | PHP 5.6 |
| centos-7-php7 | | PHP 7.0 |

2.21.2 Environment variables

Base environment variables

| Environment variable | Description | Default |
|-------------------------|------------------------------|------------------------------------|
| LOG_STDOUT | Destination of daemon output | <i>empty</i> (stdout) |
| LOG_STDERR | Destination of daemon errors | <i>empty</i> (stdout) |
| SERVICE_CRON_OPTS | cron daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_DNSMASQ_OPTS | dnsmasq daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_DNSMASQ_USER | dnsmasq effective user | root |
| SERVICE_POSTFIX_OPTS | postfix daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_SSH_OPTS | ssh daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_SUPERVISOR_OPTS | supervisor daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_SUPERVISOR_USER | supervisor effective user | root |
| SERVICE_SYSLOG_OPTS | syslog daemon arguments | <i>empty</i> (when syslog is used) |

Base environment variables

| Environment variable | Description | Default |
|----------------------|-------------------------------|--------------|
| POSTFIX_MYNETWORKS | Postfix mynetworks address | <i>empty</i> |
| POSTFIX_RELAYHOST | Postfix upstream relay server | <i>empty</i> |

PHP modules

As we build our images containing almost every PHP module and having it activated by default, you might want to deactivate some.

You can specify a comma-separated list of unwanted modules as dynamic env variable `PHP_DISMOD`, e.g. `PHP_DISMOD=ioncube,redis`.

PHP.ini variables

You can specify eg. `php.memory_limit=256M` as dynamic env variable which will set `memory_limit = 256M` as php setting.

| Environment variable | Description | Default |
|-------------------------------------|--|---------|
| <code>php.{setting-key}</code> | Sets the <code>{setting-key}</code> as php setting | |
| PHP_DATE_TIMEZONE | <code>date.timezone</code> | UTC |
| PHP_DISPLAY_ERRORS | <code>display_errors</code> | 0 |
| PHP_MEMORY_LIMIT | <code>memory_limit</code> | 512M |
| PHP_MAX_EXECUTION_TIME | <code>max_execution_time</code> | 300 |
| PHP_POST_MAX_SIZE | <code>post_max_size</code> | 50M |
| PHP_UPLOAD_MAX_FILESIZE | <code>upload_max_filesize</code> | 50M |
| PHP_OPCACHE_MEMORY_CONSUMPTION | <code>opcache.memory_consumption</code> | 256 |
| PHP_OPCACHE_MAX_ACCELERATED_FILES | <code>opcache.max_accelerated_files</code> | 7963 |
| PHP_OPCACHE_VALIDATE_TIMESTAMPS | <code>opcache.validate_timestamps</code> | default |
| PHP_OPCACHE_REVALIDATE_FREQ | <code>opcache.revalidate_freq</code> | default |
| PHP_OPCACHE_INTERNED_STRINGS_BUFFER | <code>opcache.interned_strings_buffer</code> | 16 |

PHP FPM variables

You can specify eg. `fpm.pool.pm.max_requests=1000` as dyanmic env variable which will sets `pm.max_requests = 1000` as fpm pool setting. The prefix `fpm.pool` is for pool settings and `fpm.global` for global master process settings.

| Environment variable | Description | Default |
|-------------------------------|---|----------------------|
| fpm.global. {setting-key} | Sets the {setting-key} as fpm global setting for the master process | |
| fpm.pool. {setting-key} | Sets the {setting-key} as fpm pool setting | |
| FPM_PROCESS_MAX | process.max | distribution default |
| FPM_PM_MAX_CHILDREN | pm.max_children | distribution default |
| FPM_PM_START_SERVERS | pm.start_servers | distribution default |
| FPM_PM_MIN_SPARE_SERVERS | pm.min_spare_servers | distribution default |
| FPM_PM_MAX_SPARE_SERVERS | pm.max_spare_servers | distribution default |
| FPM_PROCESS_IDLE_TIMEOUT | pm.process_idle_timeout | distribution default |
| FPM_MAX_REQUESTS | pm.max_requests | distribution default |
| FPM_REQUEST_TERMINATE_TIMEOUT | request_terminate_timeout | distribution default |
| FPM_RLIMIT_FILES | rlimit_files | distribution default |
| FPM_RLIMIT_CORE | rlimit_core | distribution default |

PHP development environment variables

| Environment variable | Description | Default |
|--------------------------------------|--|--|
| WEB_DOCUMENT_ROOT | Document root for webserver | /app |
| WEB_DOCUMENT_INDEX | Index document | index.php |
| WEB_ALIAS_DOMAIN | Domain aliases | *.vm |
| WEB_PHP_SOCKET | PHP-FPM socket address | 127.0.0.1:9000 (for php-* images) |
| WEB_NO_CACHE_PATTERN | RegExp of files which should be delivered by webserver as non cacheable to browser | \.(css js gif png jpg svg json xml) |
| PHP_DEBUGGER | Specifies which php debugger should be active | xdebug (eg. xdebug, blackfire or none) |
| XDEBUG_REMOTE_AUTOSTART | php.ini value for xdebug.remote_autostart | none |
| XDEBUG_REMOTE_CONNECT_BACK | php.ini value for xdebug.remote_connect_back | none |
| XDEBUG_REMOTE_HOST | php.ini value for xdebug.remote_host | none |
| XDEBUG_REMOTE_PORT | php.ini value for xdebug.remote_port | none |
| XDEBUG_MAX_NESTING_LEVEL | php.ini value for xdebug.max_nesting_level | none |
| XDEBUG_IDE_KEY | php.ini value for xdebug.idekey | none |
| XDEBUG_PROFILER_ENABLE | php.ini value for xdebug.profiler_enable | none |
| XDEBUG_PROFILER_ENABLE_TRIGGER | php.ini value for xdebug.profiler_enable_trigger | none |
| XDEBUG_PROFILER_ENABLE_TRIGGER_VALUE | php.ini value for xdebug.profiler_enable_trigger_value | none |
| XDEBUG_PROFILER_OUTPUT_DIR | php.ini value for xdebug.profiler_output_dir | none |
| XDEBUG_PROFILER_OUTPUT_NAME | php.ini value for xdebug.profiler_output_name | none |
| BLACKFIRE_SERVER_ID | php.ini value for blackfire.server_id | none |
| BLACKFIRE_SERVER_TOKEN | php.ini value for blackfire.server_token | none |
| SERVICE_BLACKFIRE_AGENT_ARGS | Blackfire agent command arguments | empty |

2.21.3 Customization

PHP customization

For customization a placeholder `/opt/docker/etc/php/php.ini` is available which will be loaded as last configuration file. All settings can be overwritten in this ini file.

Either use `COPY` inside your Dockerfile to overwrite this file or use `RUN echo memory_limit = 128 M >> /opt/docker/etc/php/php.ini` to set specific php.ini values.

Nginx customization

This image has two directories for configuration files which will be automatic loaded.

For global configuration options the directory `/opt/docker/etc/nginx/conf.d` can be used. For vhost configuration options the directory `/opt/docker/etc/nginx/vhost.common.conf` can be used.

Any `*.conf` files inside these directories will be included either global or the vhost section.

2.21.4 Docker image layout

Nginx layout

| File/Directory | Description |
|---|--|
| <code>/opt/docker/etc/nginx/conf.d</code> | Main global configuration directory (automatically included files) |
| <code>/opt/docker/etc/nginx/conf.d/10-php.conf</code> | PHP cgi configuration |
| <code>/opt/docker/etc/nginx/ssl</code> | SSL configuration directory for certifications and keys |
| <code>/opt/docker/etc/nginx/ssl/server.crt</code> | Example SSL certification (*.vm) |
| <code>/opt/docker/etc/nginx/ssl/server.csr</code> | Example SSL certification request (*.vm) |
| <code>/opt/docker/etc/nginx/ssl/server.key</code> | Example SSL key (*.vm) |
| <code>/opt/docker/etc/nginx/vhost.common.d</code> | Vhost configuration directory (automatically included files) |
| <code>/opt/docker/etc/nginx/vhost.common.d/10-location-root.conf</code> | Redirect requests to DOCUMENT_INDEX |
| <code>/opt/docker/etc/nginx/vhost.common.d/10-php.conf</code> | PHP cgi configuration for vhost |
| <code>/opt/docker/etc/nginx/global.conf</code> | Global nginx configuration |
| <code>/opt/docker/etc/nginx/main.conf</code> | Main Nginx configuration |
| <code>/opt/docker/etc/nginx/php.conf</code> | Deprecated PHP configuration |
| <code>/opt/docker/etc/nginx/vhost.common.conf</code> | Deprecated vhost common include |
| <code>/opt/docker/etc/nginx/vhost.conf</code> | Vhost configuration |
| <code>/opt/docker/etc/nginx/vhost.ssl.conf</code> | Vhost SSL configuration |
| <code>/opt/docker/etc/supervisor.d/nginx.conf</code> | Supervisord configuration file for Nginx |

PHP layout

| File/Directory | Description |
|--|---|
| <code>/opt/docker/etc/php/php.webdevops.ini</code> | PHP settings from WebDevOps image |
| <code>/opt/docker/etc/php/php.ini</code> | php.ini for custom settings |
| <code>/opt/docker/etc/php/fpm/php-fpm.conf</code> | PHP-FPM main configuration file |
| <code>/opt/docker/etc/php/fpm/pool.d/application.conf</code> | Application PHP-FPM pool configuration file |
| <code>/opt/docker/etc/supervisor.d/php-fpm.conf</code> | Supervisord configuration file for PHP-FPM |

2.22 webdevops/postfix

This image extends `webdevops/base` with a postfix daemon which is running on port 25

Uses Supervisord

This image is using supervisor and runs the daemon under user `application` (UID 1000; GID 1000) as default. If the container is started under a different user the daemon will be run under the specified uid.

2.22.1 Docker image tags

| Tag | Distribution name |
|--------------|-------------------|
| alpine | Alpine |
| alpine-3 | <i>deprecated</i> |
| ubuntu-12.04 | <i>deprecated</i> |
| ubuntu-14.04 | <i>deprecated</i> |
| ubuntu-15.04 | <i>deprecated</i> |
| ubuntu-15.10 | <i>deprecated</i> |
| ubuntu-16.04 | <i>deprecated</i> |
| debian-7 | <i>deprecated</i> |
| debian-8 | <i>deprecated</i> |
| debian-9 | <i>deprecated</i> |
| centos-7 | |

2.22.2 Environment variables

Base environment variables

| Environment variable | Description | Default |
|-------------------------|------------------------------|------------------------------------|
| LOG_STDOUT | Destination of daemon output | <i>empty</i> (stdout) |
| LOG_STDERR | Destination of daemon errors | <i>empty</i> (stdout) |
| SERVICE_CRON_OPTS | cron daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_DNSMASQ_OPTS | dnsmasq daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_DNSMASQ_USER | dnsmasq effective user | root |
| SERVICE_POSTFIX_OPTS | postfix daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_SSH_OPTS | ssh daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_SUPERVISOR_OPTS | supervisor daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_SUPERVISOR_USER | supervisor effective user | root |
| SERVICE_SYSLOG_OPTS | syslog daemon arguments | <i>empty</i> (when syslog is used) |

Base environment variables

| Environment variable | Description | Default |
|----------------------|-------------------------------|--------------|
| POSTFIX_MYNETWORKS | Postfix mynetworks address | <i>empty</i> |
| POSTFIX_RELAYHOST | Postfix upstream relay server | <i>empty</i> |

2.23 webdevops/samson-deployment

deprecated

These image extends zendesk/samson and is a webbased deployment service with Ansistrano, Capistrano and PHP Deployer.

The original image is only the webbased deployment system and is extended by:

- Ansible with Ansistrano
- Capistrano

- PHP Deployer
- Magallanes
- git
- rsync
- docker & docker-compose (as client)
- gulp, grunt, bower
- PHP cli & composer

Uses Supervisor

This image is using supervisor and runs the daemon under user `application` (UID 1000; GID 1000) as default. If the container is started under a different user the daemon will be run under the specified uid.

2.23.1 Environment variables

Base environment variables

| Environment variable | Description | Default |
|-------------------------|------------------------------|------------------------------------|
| LOG_STDOUT | Destination of daemon output | <i>empty</i> (stdout) |
| LOG_STDERR | Destination of daemon errors | <i>empty</i> (stdout) |
| SERVICE_CRON_OPTS | cron daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_DNSMASQ_OPTS | dnsmasq daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_DNSMASQ_USER | dnsmasq effective user | root |
| SERVICE_POSTFIX_OPTS | postfix daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_SSH_OPTS | ssh daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_SUPERVISOR_OPTS | supervisor daemon arguments | <i>empty</i> (when syslog is used) |
| SERVICE_SUPERVISOR_USER | supervisor effective user | root |
| SERVICE_SYSLOG_OPTS | syslog daemon arguments | <i>empty</i> (when syslog is used) |

Base environment variables

| Environment variable | Description | Default |
|----------------------|-------------------------------|--------------|
| POSTFIX_MYNETWORKS | Postfix mynetworks address | <i>empty</i> |
| POSTFIX_RELAYHOST | Postfix upstream relay server | <i>empty</i> |

2.23.2 Docker image layout

2.24 webdevops/sphinx

deprecated

This image extends `webdevops/bootstrap` and provides a sphinx build system.

2.24.1 Docker image tags

| Tag | Distribution name |
|--------|-------------------|
| latest | Alpine 3 |

2.24.2 Usage

```
# Build and watches documentation in ./documentation/docs/
docker run -t -i --rm -p 8080:8000 -v "$(pwd)/documentation/docs:/opt/docs"
↪webdevops/sphinx sphinx-autobuild --poll -H 0.0.0.0 /opt/docs html
```

2.25 webdevops/ssh

This image extends `webdevops/bootstrap` and provides a standalone ssh server running on port 22.

2.25.1 Docker image tags

| Tag | Distribution name |
|--------|---------------------------|
| latest | Ubuntu 16.04 xenial (LTS) |

2.25.2 Environment variables

| Environment variable | Description | Default |
|-------------------------------|-----------------------|--------------|
| <code>SERVICE_SSH_OPTS</code> | SSH command arguments | <i>empty</i> |

2.26 webdevops/storage

This image extends `busybox` and provides `/storage` as volume to other containers.

2.26.1 Docker image tags

| Tag | Distribution name |
|--------|-------------------|
| latest | Busybox |

2.27 webdevops/typo3-solr

deprecated

This image extends `solr` and provides a prebuild image for TYPO3 solr service.

2.27.1 Docker image tags

| Tag | Distribution name |
|-------|---------------------------------------|
| 6.3.0 | TYPO3 Solr service for EXT:solr 6.3.0 |

2.28 webdevops/varnish

This image extends `webdevops/base` and provides a standalone varnish server running on port 80.

2.28.1 Docker image tags

| Tag | Distribution name |
|--------|-------------------|
| latest | Alpine 3 |

2.28.2 Environment variables

| Environment variable | Description | Default |
|----------------------|------------------------------------|---------------------------|
| VARNISH_PORT | Listening port | 80 |
| VARNISH_CONFIG | Custom configuration file | <i>empty</i> |
| VARNISH_STORAGE | Storage cache setting | <code>malloc, 128m</code> |
| VARNISH_OPTS | Additional varnish command options | <i>empty</i> |
| VARNISH_BACKEND_HOST | Backend server hostname | <i>empty</i> |
| VARNISH_BACKEND_PORT | Backend server port | 80 |

2.29 webdevops/vsftp

This image extends `webdevops/base` and provides a standalone vsftp server running on port 20 and 21.

Uses Supervisor

This image is using supervisor and runs the daemon under user `application` (UID 1000; GID 1000) as default. If the container is started under a different user the daemon will be run under the specified uid.

2.29.1 Docker image tags

| Tag | Distribution name |
|--------|---------------------------|
| latest | Ubuntu 18.04 xenial (LTS) |

2.29.2 Environment variables

| Environment variable | Description | Default |
|----------------------|-------------------------|--------------|
| FTP_USER | FTP account username | application |
| FTP_PASSWORD | FTP account password | application |
| FTP_UID | FTP account uid | 1000 |
| FTP_GID | FTP account gid | 1000 |
| FTP_PATH | FTP account home path | /data/ftp/ |
| SERVICE_VSFTP_OPTS | VSFTP command arguments | <i>empty</i> |

3.1 Requirements

- **python** and **PIP**
- **ruby** for serverspec tests

3.2 Install dependencies

The building process, we need some python packages as well as ruby rspec and serverspec packages:

```
make requirements
```

3.3 Configuration

All commands are using configuration options from `conf/console.yml`.

3.4 bin/console tasks

Tip: Most tasks are using arguments as whitelist addon for easier usage.

3.4.1 bin/console docker:build

Build all Dockerfiles found in `docker/` directory. The directory structure defines the naming of the built images (using convention over configuration).

| Option | Description | Values |
|------------------|--|--|
| -v | Verbose output | <i>option only</i> |
| -threads=n | Run in parallized mode (currently multi-process instead of real threads) | <i>numeric values</i> , auto, auto/2, auto*2, auto-2, auto+2 |
| -dry-run | Don't really execute build process | <i>option only</i> |
| -no-cache | Don't use Docker caching | <i>option only</i> |
| -retry=n | Retry process multiple times (eg. for networking issues) | <i>numeric values</i> |
| -whitelist=term | Only build Docker images with <i>term</i> in name | <i>string value</i> |
| -black-list=term | Don't build Docker images with <i>term</i> in name | <i>string value</i> |

3.4.2 bin/console docker:push

Push (upload) all built Docker images to registry (using convention over configuration).

| Option | Description | Values |
|------------------|--|--|
| -v | Verbose output | <i>option only</i> |
| -threads=n | Run in parallized mode (currently multi-process instead of real threads) | <i>numeric values</i> , auto, auto/2, auto*2, auto-2, auto+2 |
| -dry-run | Don't really execute build process | <i>option only</i> |
| -retry=n | Retry process multiple times (eg. for networking issues) | <i>numeric values</i> |
| -whitelist=term | Only build Docker images with <i>term</i> in name | <i>string value</i> |
| -black-list=term | Don't build Docker images with <i>term</i> in name | <i>string value</i> |

3.4.3 bin/console docker:pull

Pull (download) all built Docker images to registry (using convention over configuration).

| Option | Description | Values |
|------------------|--|--|
| -v | Verbose output | <i>option only</i> |
| -threads=n | Run in parallized mode (currently multi-process instead of real threads) | <i>numeric values</i> , auto, auto/2, auto*2, auto-2, auto+2 |
| -dry-run | Don't really execute build process | <i>option only</i> |
| -retry=n | Retry process multiple times (eg. for networking issues) | <i>numeric values</i> |
| -whitelist=term | Only build Docker images with <i>term</i> in name | <i>string value</i> |
| -black-list=term | Don't build Docker images with <i>term</i> in name | <i>string value</i> |

3.4.4 bin/console docker:exec

Execute argument as command inside all docker images.

eg. `bin/console docker:exec --whitelist php -- 'php -v'`

Tip: Separate the docker image command arguments from the console commands with two dashes.

| Option | Description | Values |
|-----------------|--|---------------------|
| -v | Verbose output | <i>option only</i> |
| -dry-run | Don't really execute build process | <i>option only</i> |
| -whitelist=term | Only build Docker images with <i>term</i> in name | <i>string value</i> |
| -blacklist=term | Don't build Docker images with <i>term</i> in name | <i>string value</i> |

3.4.5 bin/console test:testinfra

Test built images with `testinfra` (python module), spec files are inside `tests/testinfra`

| Option | Description | Values |
|-----------------|--|--|
| -v | Verbose output | <i>option only</i> |
| -threads=n | Run in parallized mode (currently multi-process instead of real threads) | <i>numeric values</i> , auto, auto/2, auto*2, auto-2, auto+2 |
| -dry-run | Don't really execute build process | <i>option only</i> |
| -whitelist=term | Only build Docker images with <i>term</i> in name | <i>string value</i> |
| -blacklist=term | Don't build Docker images with <i>term</i> in name | <i>string value</i> |

3.4.6 bin/console test:serverspec

Test built images with `serverspec` (python module), spec files are inside `tests/serverspec`

| Option | Description | Values |
|-----------------|--|--|
| -threads=n | Run in parallized mode (currently multi-process instead of real threads) | <i>numeric values</i> , auto, auto/2, auto*2, auto-2, auto+2 |
| -dry-run | Don't really execute build process | <i>option only</i> |
| -retry=n | Retry process multiple times (eg. for networking issues) | <i>numeric values</i> |
| -whitelist=term | Only build Docker images with <i>term</i> in name | <i>string value</i> |
| -blacklist=term | Don't build Docker images with <i>term</i> in name | <i>string value</i> |

3.4.7 bin/console generate:graph

Generates Docker images dependency graph using graphviz.

3.4.8 bin/console generate:dockerfile

Generate Dockerfiles from `Dockerfile.jinja2` templates.

Configuration is stored inside `conf/diagram.yml`.

3.4.9 bin/console generate:provision

Generate provision (common configuration files) and deploy them to the specified Dockerfile directories.

Configuration is stored inside `conf/provision.yml`.

This section is not done yet!

4.1 Docker image tools

4.1.1 docker-service

For enabling or disabling services run *docker-service enable* or *docker-service disable* inside your Dockerfile:

```
RUN docker-service enable ssh
```

This task will also trigger an auto installation if the daemon is not installed.

Available services are specified inside */opt/docker/etc/supervisor.d/*.

Common services are:

- cron
- dnsmasq
- postfix
- ssh
- syslog

4.1.2 docker-cronjob

For adding cronjobs the *docker-cronjob* script can be used in your Dockerfile:

```
RUN docker-cronjob '* * * * * application /app/cron.php`
```

Because this comand is run in shell mode make sure you add appropriate quotes to disable wildcard matching.

4.1.3 docker-provision

The *docker-provision* script controls the ansible provision system. See provision for more details.

(Will be replaced in future)

4.1.4 go-replace

Simple but powerful search&replace and template processing tool for manipulating files inside Docker:

```
# normal search&replace
go-replace -s VIRTUAL_HOST -r "$VIRTUAL_HOST" daemon.conf

# or with template
go-replace --mode=template daemon.conf.tmpl:daemon.conf
```

For more informations see documentation inside [go-replace repository](#).

4.2 Provisioning

Important: Provision system is only available in Docker images which are based on `webdevops/base!`

4.2.1 Custom entrypoint scripts

Shell scripts (*.sh) for container startup can be placed inside following directories:

- /entrypoint.d/
- /opt/docker/provision/entrypoint.d/

These files (*.sh) will be executed automatically.

4.2.2 Provision Events

| Provision event/tag | Description |
|---------------------|--|
| bootstrap | Run on Docker image creation (only run once) |
| build | Run on Docker image build |
| onbuild | Run on Docker image ONBUILD |
| entrypoint | Run on Docker image entrypoint execution (only here Environment variables are available) |

Attention: Try to avoid entrypoint provision tasks because it delays startup time.

4.2.3 Shell script provision

For each provision event there is a directory for shell scripts:

- /opt/docker/provision/bootstrap.d/

- /opt/docker/provision/build.d/
- /opt/docker/provision/onbuild.d/
- /opt/docker/provision/entrypoint.d/

For customization just add your shell scripts into these directories for the simple shell script provision system.

4.2.4 Ansible provision

For Ansible the provision events are available as tags. The roles are located inside /opt/docker/provision/roles/ and must be registered with the provision system:

```
/opt/docker/bin/provision add --tag bootstrap --role my-own-role
```

Multiple tags can be defined with multiple `--tag` options:

```
/opt/docker/bin/provision add --tag bootstrap --tag build --role my-own-role
```

There is a priority system for roles in which order they should be executed, default priority is 100:

```
## run before
/opt/docker/bin/provision add --tag bootstrap --priority 40 --role my-own-role-first

## run with normal priority
/opt/docker/bin/provision add --tag bootstrap --role my-own-role

## run after
/opt/docker/bin/provision add --tag bootstrap --priority 200 --role my-own-role-last
```

It's also possible to run one role with the provision command:

```
/opt/docker/bin/provision run --tag bootstrap --role my-own-role
```

4.3 Supervisor Daemon (Services)

Important: Supervisor is only available in Docker images which are based on `webdevops/base!`

4.3.1 Introduction

Supervisor daemon is used to start and supervise more than one process in Docker containers. More about supervisor can be found on supervisor homepage at <http://supervisord.org/>

4.3.2 Enable and disable services

For enabling services run `docker-service-enable` or `docker-service-disable` inside your Dockerfile.

eg:

```
RUN docker-service-enable ssh
```

This task will also trigger an auto installation if the daemon is not installed.

4.3.3 Configuration

The main supervisor configuration file is located at `/opt/docker/etc/supervisor.conf` and only controls the supervisor daemon itself. All services are configured inside `/opt/docker/etc/supervisor.d/` directory.

Example configuration for hhvm:

```
[group:hhvm]
programs=hhvmd
priority=20

[program:hhvmd]
command = /opt/docker/bin/service.d/hhvm.sh
process_name=%(program_name)s
directory = /var/run/hhvm/
startsecs = 0
autostart = true
autorestart = true
stdout_logfile=/dev/stdout
stdout_logfile_maxbytes=0
stderr_logfile=/dev/stderr
stderr_logfile_maxbytes=0
```

4.3.4 Service daemon scripts

For every service there is a small bash script inside `/opt/docker/bin/service.d/` which takes care how to start the service. This script also have a modular task runner which runs files from `/opt/docker/bin/service.d/SERVICE.d/*.sh`.

Example for HHVM:

HHVM's service script is located at `/opt/docker/bin/service.d/hhvm.sh`.

Before running HHVM all scripts found with `/opt/docker/bin/service.d/hhvm.d/*.sh` will be executed.

5.1 General images

5.1.1 webdevops/...:alpine-3

- doesn't support `locales` (upstream issue)

5.2 PHP images

5.2.1 webdevops/php...:ubuntu-12.04

- missing `redis`
- missing `apcu`

5.2.2 webdevops/php...:debian-7

- missing `redis`
- missing `apcu`

5.2.3 webdevops/php...:alpine-3

- missing `mhash`

5.2.4 webdevops/php...-dev:alpine-3

- missing `blackfire` (not supported)

5.2.5 webdevops/php...-dev:debian-8-php7

- missing xdebug

CHAPTER 6

FAQ

Placeholder