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Overview of `php-fpm` `www.conf` Configuration Options

The `www.conf` file in PHP-FPM defines the settings for a process pool, which is a group of PHP worker processes handling requests. Each pool can be configured independently, allowing for resource isolation and custom tuning per application or site[1] [2]. The file is typically found in `/etc/php/<version>/fpm/pool.d/www.conf` or similar paths depending on your OS and PHP version[3].

Below is a comprehensive explanation of the main configuration options available in `www.conf` and their purposes.

Core Pool Options

- **[pool_name]**
  The section header (e.g., `[www]`) defines the pool's name. Each pool must have a unique name[1] [2].
- **user / group**
  Specifies the Unix user and group under which the pool's worker processes will run.
  Example:
  ```
  user = www-data
  group = www-data
  ```
- **listen**
  Defines the address (Unix socket or TCP) where PHP-FPM will listen for incoming requests.
  Example:
  ```
  listen = /var/run/php/php7.4-fpm.sock
  ```
- **listen.owner / listen.group / listen.mode**
  Set the owner, group, and permissions for the socket file, important for web server communication.

Process Manager (pm) Options

- **pm**
  Controls how PHP-FPM manages child processes.
  Values:
  - `static`: Fixed number of child processes.
  - `dynamic`: Number of children varies between min and max.
  - `ondemand`: Children spawn on demand and exit when idle[1].

- **pm.max_children**
  Maximum number of child processes allowed to exist simultaneously.
- **pm.start_servers**
  (Dynamic only) Number of child processes created on startup.
- **pm.min_spare_servers / pm.max_spare_servers**
  (Dynamic only) Minimum and maximum number of idle (waiting) child processes.
- **pm.process_idle_timeout**
  (Ondemand only) How long an idle process waits before being killed.
- **pm.max_requests**
  Number of requests each child process should execute before respawning (helps mitigate memory leaks).
- **pm.status_path**
  URL path to expose FPM status for monitoring (e.g., `/status`)[1].

Security and Environment Options

- **php_admin_value[] / php_admin_flag[]**
  Set PHP configuration values for this pool only.
  Example:

```
php_admin_value[disable_functions] = exec,passthru,shell_exec,system
php_admin_flag[allow_url_fopen] = off
```

- **env[]**
  Set environment variables for PHP scripts in this pool[1].
  Example:

```
env[HOSTNAME] = $HOSTNAME
env[TMP] = /tmp
```

Logging and Slow Request Tracking

- **access.log**
  Path to the access log file for this pool.
- **slowlog**
  Path to the slow request log file.
- **request_slowlog_timeout**
  Time threshold for logging a slow request.
- **request_terminate_timeout**
  Maximum time a script is allowed to run before being killed.

Other Notable Options

- **chroot / chdir**
  Restrict the root directory or working directory for pool processes.
- **catch_workers_output**
  Enables capturing stdout/stderr of worker processes to the main error log.
- **rlimit_files / rlimit_core**
  Set resource limits for file descriptors and core dumps.

Global vs. Pool-Specific Options

Some options (such as `process_control_timeout`) are *global* and must be set in the main `php-fpm.conf` under a `[global]` section, not in `www.conf`[4].

Overriding and Extending Pool Configs

You can override settings in `www.conf` by creating another `.conf` file in the same directory with the same pool name. The last-loaded file (alphabetically) takes precedence for overlapping options[5].

Example `www.conf` Pool Configuration

```
[www]
user = www-data
group = www-data
listen = /var/run/php/php7.4-fpm.sock
listen.owner = www-data
listen.group = www-data
pm = dynamic
pm.max_children = 50
pm.start_servers = 5
pm.min_spare_servers = 5
pm.max_spare_servers = 35
pm.status_path = /status
pm.max_requests = 500
php_admin_value[disable_functions] = exec,passthru,shell_exec,system
php_admin_flag[allow_url_fopen] = off
env[HOSTNAME] = $HOSTNAME
env[TMP] = /tmp
```

Summary Table of Key Options

Option	Description
`[pool_name]`	Pool section header (e.g., `[www]`)
`user`, `group`	Unix user/group for pool processes

Option	Description
`listen`	Socket or TCP address to listen on
`listen.owner`, `listen.group`, `listen.mode`	Socket file permissions
`pm`	Process manager mode (static, dynamic, ondemand)
`pm.max_children`	Max child processes
`pm.start_servers`	Children at startup (dynamic only)
`pm.min_spare_servers`	Min idle children (dynamic only)
`pm.max_spare_servers`	Max idle children (dynamic only)
`pm.process_idle_timeout`	Idle timeout (ondemand only)
`pm.max_requests`	Requests before respawn
`pm.status_path`	FPM status URL path
`php_admin_value[]`	Pool-specific php.ini values
`env[]`	Environment variables for pool
`access.log`, `slowlog`	Logging paths
`request_slowlog_timeout`	Slow request threshold
`request_terminate_timeout`	Max script execution time

For further details or rare options, consult the official PHP-FPM documentation or the comments within the default `www.conf` file. This setup allows fine-grained control over PHP process management, security, and performance for each application or site you host[1] [3] [2].

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1. https://www.digitalocean.com/community/tutorials/php-fpm-nginx
2. https://stackoverflow.com/questions/39054500/what-is-www-conf
3. https://www.ispmanager.com/knowledge-base/changing-php-fpm-pool-settings
4. https://serverfault.com/questions/1121499/php-fpm-error-etc-php-fpm-d-www-confxxx-unknown-entry-process-control-time
5. https://serverfault.com/questions/805647/override-php-fpm-pool-config-values-with-another-file