Install PmaControl on Debian 12

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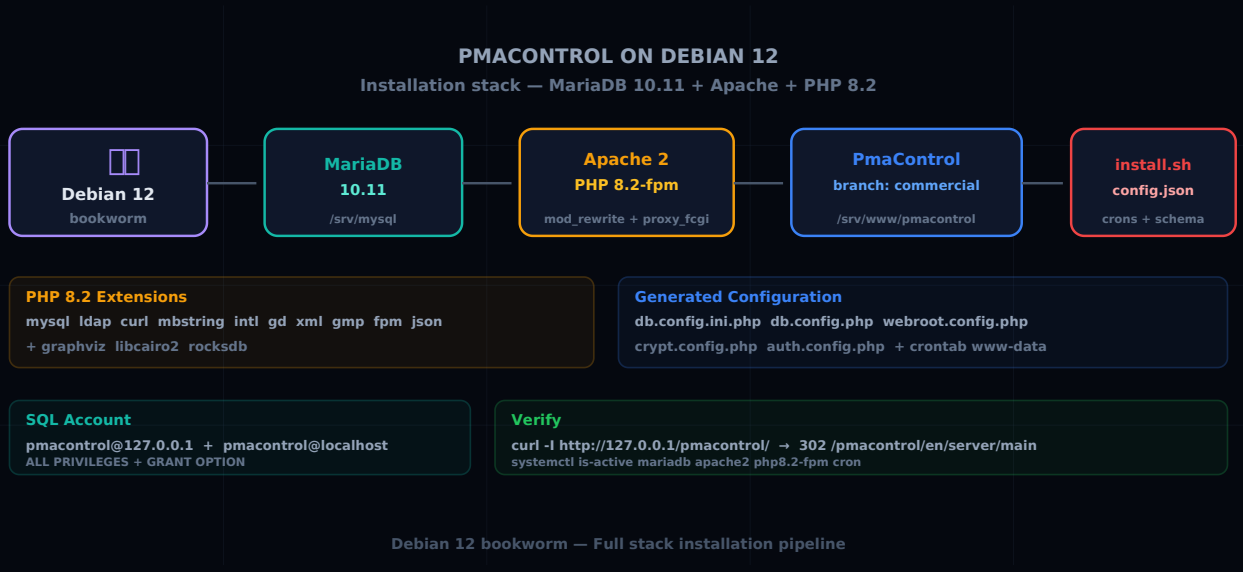
PMACONTROL DEBIAN INSTALLATION MARIADB APACHE PHP



Goal

This article explains how to install PmaControl on Debian 12 using the project's official sources, while addressing an important practical point:

- the Debian 12 wiki points to `install/debian12.sh`
- this script clones the default `PmaControl` repository
- if you explicitly want the `commercial` branch, you need to adapt the cloning step or checkout right after

The idea is to keep the project's official logic while making it cleanly usable for a current Debian 12 installation.

Sources used:

- GitHub wiki `PmaControl/PmaControl`
- repository `PmaControl/PmaControl`, branch `commercial`
- script `install/debian12.sh`

- root script `install.sh`
- documentation from the `commercial` branch

What the official installation does

According to the Debian 12 wiki, the standard installation is:

```
apt-get install curl
curl -o install-pmacontrol
https://raw.githubusercontent.com/PmaControl/PmaControl/master/install/debian12.sh
chmod +x install-pmacontrol
./install-pmacontrol
```

The `install/debian12.sh` script from the `commercial` branch then mainly:

1. updates the system
2. installs base tools
3. installs MariaDB `10.11`
4. installs Apache, PHP `8.2`, Composer, Graphviz and some dependencies
5. clones the PmaControl repository into `/srv/www/pmacontrol`
6. runs `composer install` as `www-data`
7. creates a local MySQL account `pmacontrol@127.0.0.1`
8. generates a temporary `config.json`
9. runs `./install.sh -c /tmp/config.json`
10. displays the generated credentials

Versions and components observed in sources

The Debian 12 script from the `commercial` branch targets this stack:

- MariaDB `10.11`
- Apache 2
- PHP `8.2`
- Composer
- Graphviz

- RocksDB plugin for MariaDB

PHP packages explicitly installed:

- `php8.2`, `php8.2-mysql`, `php8.2-ldap`, `php-json`, `php8.2-curl`
- `php8.2-cli`, `php8.2-mbstring`, `php8.2-intl`, `php8.2-fpm`
- `libapache2-mod-php8.2`, `php8.2-gd`, `php8.2-xml`, `php8.2-gmp`

Recommended prerequisites

Before starting the installation, prepare:

- a clean Debian 12
- root access
- working DNS and outbound network
- at least 4 GB of RAM
- enough disk space for MariaDB, `/srv/www/pmacontrol` and Composer dependencies

I also recommend preparing:

- a proper hostname
- a static IP
- a consistent timezone
- dedicated storage for MariaDB if the machine will monitor many servers

Important note about the `commercial` branch

The Debian 12 wiki is minimalistic. It points to the `install/debian12.sh` script, but this script simply clones the main repository without explicitly running:

```
git checkout commercial
```

If your target is indeed the `commercial` branch, do this instead:

```
apt-get update
apt-get install -y curl git
cd /tmp
```

```
curl -o install-pmacontrol
https://raw.githubusercontent.com/PmaControl/PmaControl/commercial/install/debian12.sh
chmod +x install-pmacontrol
```

Then, before the `composer install` phase, replace the cloning part with:

```
mkdir -p /srv/www
cd /srv/www
git clone --branch commercial --single-branch https://github.com/PmaControl/PmaControl.git
pmacontrol
cd /srv/www/pmacontrol
```

This is the cleanest approach if you actually want to install the `commercial` code.

Recommended procedure

1. Prepare Debian 12

```
apt-get update
apt-get -y upgrade
apt-get install -y curl git sudo lsb-release unzip zip wget gnupg gnupg2 net-tools dnsutils
jq bc composer cron
timedatectl set-timezone Europe/Paris
```

Why `cron` explicitly: `install.sh` uses `crontab`. On a minimal Debian machine, the absence of `cron` can break the end of installation. This point is not explicitly addressed in `install/debian12.sh`, but it comes from the logic of `install.sh`.

2. Install MariaDB 10.11

The official Debian 12 script configures the MariaDB repository then calls `Toolkit/install-mariadb.sh`:

```
cd /tmp
git clone https://github.com/PmaControl/Toolkit.git
cd Toolkit
chmod +x install-mariadb.sh
curl -LsS https://r.mariadb.com/downloads/mariadb_repo_setup | bash -s -- --mariadb-server-
version="mariadb-10.11"
./install-mariadb.sh -v 10.11 -p '<root_sql_password>' -d /srv/mysql -r
```

Key points:

- the datadir is set to `/srv/mysql`
- the script uses MariaDB, not MySQL
- the service is then restarted

3. Install Apache, PHP 8.2 and dependencies

Still according to `install/debian12.sh`:

```
apt-get install -y \
  php8.2 apache2 php8.2-mysql php8.2-ldap php-json php8.2-curl \
  php8.2-cli php8.2-mbstring php8.2-intl php8.2-fpm \
  libapache2-mod-php8.2 php8.2-gd php8.2-xml php8.2-gmp

apt-get install -y graphviz libcairo2 mariadb-plugin-rocksdb
```

Then:

```
mysql -e "INSTALL SONAME 'ha_rocksdb'"
a2enmod proxy_fcgi setenvif
a2enconf php8.2-fpm
a2enmod rewrite
```

PHP timezone setting:

```
sed -i 's#;date.timezone =#date.timezone = Europe/Paris#g' /etc/php/8.2/fpm/php.ini
sed -i 's#;date.timezone =#date.timezone = Europe/Paris#g' /etc/php/8.2/apache2/php.ini
sed -i 's#;date.timezone =#date.timezone = Europe/Paris#g' /etc/php/8.2/cli/php.ini
```

4. Configure Apache for `/srv/www`

The Debian 12 script replaces the standard Apache webroot with `/srv/www`:

```
sed -i 's#/var/www#/srv/www#g' /etc/apache2/apache2.conf
sed -i 's#/var/www/html#/srv/www#g' /etc/apache2/sites-enabled/000-default.conf
awk '/AllowOverride/ && ++i==3 {sub(/None/,"All")}1' /etc/apache2/apache2.conf > /tmp/xfgh
mv /tmp/xfgh /etc/apache2/apache2.conf
```

Then:

```
mkdir -p /srv/www
systemctl restart apache2
```

The key point here: PmaControl expects to be served under `/srv/www/pmacontrol` and the webroot generated by the project will be `/pmacontrol/`.

5. Clone PmaControl on the `commercial` branch

```
mkdir -p /srv/www
cd /srv/www
git clone --branch commercial --single-branch https://github.com/PmaControl/PmaControl.git pmacontrol
cd /srv/www/pmacontrol
chown -R www-data:www-data /srv/www/pmacontrol
chown -R www-data:www-data /var/www
sudo -u www-data composer install
```

Why I prefer this sequence:

- it targets the intended branch
- it avoids installing another state of the repository by default
- it remains compatible with the flow expected by `install.sh`

6. Create the local MySQL account for PmaControl

The official script creates:

```
GRANT ALL ON *.* TO pmacontrol@'127.0.0.1' IDENTIFIED BY '<password>' WITH GRANT OPTION;
```

I recommend also adding `localhost` to avoid surprises depending on the connection mode:

```
CREATE OR REPLACE USER 'pmacontrol'@'127.0.0.1' IDENTIFIED BY '<password>';
CREATE OR REPLACE USER 'pmacontrol'@'localhost' IDENTIFIED BY '<password>';
GRANT ALL PRIVILEGES ON *.* TO 'pmacontrol'@'127.0.0.1' WITH GRANT OPTION;
GRANT ALL PRIVILEGES ON *.* TO 'pmacontrol'@'localhost' WITH GRANT OPTION;
FLUSH PRIVILEGES;
```

7. Prepare the `config.json` file

The `install/debian12.sh` script generates a temporary `config.json`. Its structure is important because `install.sh` uses it to define the database, create the organisation, administrator account, webservice account, and configure the webroot.

Working example:

```
{
  "mysql": {
    "ip": "127.0.0.1",
    "port": 3306,
    "user": "pmacontrol",
    "password": "CHANGE_ME_DB_PASSWORD",
    "database": "pmacontrol"
  },
  "organization": ["68Koncept"],
  "webroot": "/pmacontrol/",
  "ldap": { "enabled": false },
  "user": {
    "Member": null,
    "Administrator": null,
    "Super administrator": [{
      "email": "admin@example.net",
      "firstname": "Admin",
      "lastname": "PmaControl",
      "country": "France",
      "city": "Paris",
      "login": "admin",
      "password": "CHANGE_ME_ADMIN_PASSWORD"
    }]
  },
  "webservice": [{
    "user": "webservice",
    "host": "%",
    "password": "CHANGE_ME_WEBSERVICE_PASSWORD",
    "organization": "68Koncept"
  }]
}
```

I recommend not reusing the `ssh` block injected in some historical scripts, unless you have an explicit need and a controlled key.

8. Run the application installation

From the cloned repository:

```
cd /srv/www/pmacontrol
./install.sh -c /tmp/config.json
```

According to `install.sh`, this command then:

1. generates `configuration/webroot.config.php`
2. initialises the database
3. creates the organisation
4. creates the super administrator
5. integrates LDAP if enabled
6. creates the webservice account
7. creates TS tables
8. updates the server list
9. generates the model and caches
10. sets up system crons

9. Understand what `install.sh` modifies

The root script is important because it does more than just "install". It:

- copies files from `config_sample/` to `configuration/`
- generates `configuration/db.config.ini.php`
- generates `configuration/db.config.php`
- generates `configuration/webroot.config.php`
- sets permissions on `tmp/` and `data/`
- installs a crontab for `www-data`
- installs a crontab for `root`
- runs `composer install` if needed

Examples of cron tasks added:

```
* * * * * cd /srv/www/pmacontrol && ./glial agent check_daemon
05 */4 * * * cd /srv/www/pmacontrol && ./glial control service
* * * * * cd /srv/www/pmacontrol/script && ./monitor_mysql.sh
```

10. Verify the installation is healthy

Services:

```
systemctl is-active mariadb
systemctl is-active apache2
systemctl is-active php8.2-fpm
systemctl is-active cron
```

Versions:

```
php -v
mysql -Nse "SELECT VERSION()"
apache2 -v
```

HTTP:

```
curl -I http://127.0.0.1/pmacontrol/
```

You should get a responding front controller, usually with a redirect to:

```
/pmacontrol/en/server/main
```

Expected config files:

- `configuration/db.config.ini.php`
- `configuration/db.config.php`
- `configuration/webroot.config.php`
- `configuration/crypt.config.php`
- `configuration/auth.config.php`

11. Verify the database configuration

The installation controller writes a file like this in `configuration/db.config.ini.php`:

```
[pmacontrol]
driver=mysql
hostname=127.0.0.1
user=pmacontrol
password='...'
crypted='1'
database=pmacontrol
ssl=0
```

This is important: the connection name used by the framework is `pmacontrol`. If this file is empty or broken, the application won't start correctly.

12. Points to watch

1. The Debian 12 wiki is intentionally very short. It provides the entry point, not the detail of every component. You need to read the `install/debian12.sh` and `install.sh` scripts to understand what is actually installed.

2. The `commercial` branch is not automatically guaranteed by the wiki shortcut. If you want the `commercial` branch, clone it explicitly.

3. `cron` must be present. It's a practical requirement of `install.sh`. I consider it a real prerequisite, even though the Debian 12 script doesn't install it explicitly.

4. Apache is rewritten to `/srv/www`. If the machine already has existing hosting, this change is potentially intrusive.

5. The SQL account `pmacontrol` receives `ALL PRIVILEGES`. This is the script's behaviour. If you want to harden it later, do so after installation, once you know the exact scope of the application's needs.

Compact procedure

Short and clean version for a quick installation:

```
apt-get update && apt-get -y upgrade
apt-get install -y curl git sudo composer cron

cd /tmp
```

```
git clone https://github.com/PmaControl/Toolkit.git
cd Toolkit
curl -LsS https://r.mariadb.com/downloads/mariadb_repo_setup | bash -s -- --mariadb-server-
version="mariadb-10.11"
./install-mariadb.sh -v 10.11 -p 'RootDbStrongPassword' -d /srv/mysql -r

apt-get install -y \
  apache2 php8.2 php8.2-fpm libapache2-mod-php8.2 \
  php8.2-mysql php8.2-ldap php8.2-curl php8.2-cli \
  php8.2-mbstring php8.2-intl php8.2-gd php8.2-xml php8.2-gmp \
  graphviz libcairo2 mariadb-plugin-rocksdb

mysql -e "INSTALL SONAME 'ha_rocksdb'"
a2enmod proxy_fcgi setenvif rewrite
a2enconf php8.2-fpm

sed -i 's#/var/www#/srv/www#g' /etc/apache2/apache2.conf
sed -i 's#/var/www/html#/srv/www#g' /etc/apache2/sites-enabled/000-default.conf
mkdir -p /srv/www
systemctl restart apache2

cd /srv/www
git clone --branch commercial --single-branch https://github.com/PmaControl/PmaControl.git
pmacontrol
cd /srv/www/pmacontrol
chown -R www-data:www-data /srv/www/pmacontrol
sudo -u www-data composer install

mysql <<'SQL'
CREATE OR REPLACE USER 'pmacontrol'@'127.0.0.1' IDENTIFIED BY 'ChangeMeDbPassword';
CREATE OR REPLACE USER 'pmacontrol'@'localhost' IDENTIFIED BY 'ChangeMeDbPassword';
GRANT ALL PRIVILEGES ON *.* TO 'pmacontrol'@'127.0.0.1' WITH GRANT OPTION;
GRANT ALL PRIVILEGES ON *.* TO 'pmacontrol'@'localhost' WITH GRANT OPTION;
FLUSH PRIVILEGES;
SQL

cat >/tmp/config.json <<'JSON'
{
  "mysql": {
    "ip": "127.0.0.1",
    "port": 3306,
```

```
    "user": "pmacontrol",
    "password": "ChangeMeDbPassword",
    "database": "pmacontrol"
  },
  "organization": ["68Koncept"],
  "webroot": "/pmacontrol/",
  "ldap": { "enabled": false },
  "user": {
    "Member": null,
    "Administrator": null,
    "Super administrator": [{
      "email": "admin@example.net",
      "firstname": "Admin",
      "lastname": "PmaControl",
      "country": "France",
      "city": "Paris",
      "login": "admin",
      "password": "ChangeMeAdminPassword"
    }]
  },
  "webservice": [{
    "user": "webservice",
    "host": "%",
    "password": "ChangeMeWebservicePassword",
    "organization": "68Koncept"
  }]
}
JSON

./install.sh -c /tmp/config.json
```

Conclusion

For Debian 12, the official PmaControl documentation base is sufficient if you read together the Debian 12 wiki, `install/debian12.sh`, `install.sh` and the documentation from the `commercial` branch.

The actual installation logic is simple:

1. MariaDB `10.11`
2. Apache + PHP `8.2`

3. PmaControl repository under `/srv/www/pmacontrol`
4. `composer install`
5. local SQL account `pmacontrol`
6. `config.json`
7. `./install.sh -c ...`

If the target is the `commercial` branch, the most important point is to explicitly force the cloning of this branch instead of blindly following the wiki shortcut.

References

- Wiki — New install on Debian 12
- Wiki — Install
- Commercial repository — install/debian12.sh
- Commercial repository — install.sh