phpMyAdmin Documentation

Release 5.2.4-dev

The phpMyAdmin devel team

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CHAPTER

ONE

INTRODUCTION

phpMyAdmin is a free software tool written in PHP that is intended to handle the administration of a MySQL or MariaDB database server. You can use phpMyAdmin to perform most administration tasks, including creating a database, running queries, and adding user accounts.

1.1 Supported features

Currently phpMyAdmin can:

- create, browse, edit, and drop databases, tables, views, columns, and indexes
- display multiple results sets through stored procedures or queries
- create, copy, drop, rename and alter databases, tables, columns and indexes
- maintenance server, databases and tables, with proposals on server configuration
- execute, edit and bookmark any *SQL*-statement, even batch-queries
- load text files into tables
- create[1] and read dumps of tables
- export[1] data to various formats: *CSV*, *XML*, *PDF*, *ISO*/*IEC* 26300 - *OpenDocument* Text and Spreadsheet, Microsoft Word 2000, and LATEX formats
- import data and *MySQL* structures from *OpenDocument* spreadsheets, as well as *XML*, *CSV*, and *SQL* files
- administer multiple servers
- add, edit, and remove MySQL user accounts and privileges
- check referential integrity in MyISAM tables
- using Query-by-example (QBE), create complex queries automatically connecting required tables
- create *PDF* graphics of your database layout
- search globally in a database or a subset of it
- transform stored data into any format using a set of predefined functions, like displaying BLOB-data as image or download-link
- track changes on databases, tables and views
- support InnoDB tables and foreign keys
- support mysqli, the improved MySQL extension see *1.17 Which Database versions does phpMyAdmin support?*

[1] phpMyAdmin can compress (*ZIP*, *GZip* or *RFC 1952* formats) dumps and *CSV* exports if you use PHP with *Zlib* support (`--with-zlib`). Proper support may also need changes in `php.ini`.

- create, edit, call, export and drop stored procedures and functions
- create, edit, export and drop events and triggers
- communicate in 80 different languages

1.2 Shortcut keys

Currently phpMyAdmin supports following shortcuts:

- k and CTRL+k - Toggle console
- CTRL+ALT+c - Toggle console
- h - Go to home page
- s - Open settings
- d + s - Go to database structure (Provided you are in database related page)
- d + f - Search database (Provided you are in database related page)
- t + s - Go to table structure (Provided you are in table related page)
- t + f - Search table (Provided you are in table related page)
- backspace - Takes you to older page.

1.3 A word about users

Many people have difficulty understanding the concept of user management with regards to phpMyAdmin. When a user logs in to phpMyAdmin, that username and password are passed directly to MySQL. phpMyAdmin does no account management on its own (other than allowing one to manipulate the MySQL user account information); all users must be valid MySQL users.

CHAPTER

TWO

REQUIREMENTS

2.1 Web server

Since phpMyAdmin's interface is based entirely in your browser, you'll need a web server (such as Apache, nginx, *IIS*) to install phpMyAdmin's files into.

2.2 PHP

- You need PHP 7.2.5 or newer, with `session` support, the Standard PHP Library (SPL) extension, hash, ctype, and JSON support.
- The `mbstring` extension (see *mbstring*) is strongly recommended for performance reasons.
- To support uploading of ZIP files, you need the PHP `zip` extension.
- You need GD2 support in PHP to display inline thumbnails of JPEGs ("image/jpeg: inline") with their original aspect ratio.
- When using the cookie authentication (the default), the openssl extension is strongly suggested.
- To support upload progress bars, see *2.9 Seeing an upload progress bar*.
- To support XML and Open Document Spreadsheet importing, you need the libxml extension.
- To support reCAPTCHA on the login page, you need the openssl extension.
- To support displaying phpMyAdmin's latest version, you need to enable `allow_url_open` in your `php.ini` or to have the curl extension.

See also

1.31 Which PHP versions does phpMyAdmin support?, *Using authentication modes*

2.3 Database

phpMyAdmin supports MySQL-compatible databases.

- MySQL 5.5 or newer
- MariaDB 5.5 or newer

See also

1.17 Which Database versions does phpMyAdmin support?

2.4 Web browser

To access phpMyAdmin you need a web browser with cookies and JavaScript enabled.

You need a browser which is supported by Bootstrap 4.5, see <https://getbootstrap.com/docs/4.5/getting-started/browsers-devices/>.

Changed in version 5.2.0: You need a browser which is supported by Bootstrap 5.0, see <https://getbootstrap.com/docs/5.0/getting-started/browsers-devices/>.

CHAPTER

THREE

INSTALLATION

phpMyAdmin does not apply any special security methods to the MySQL database server. It is still the system administrator's job to grant permissions on the MySQL databases properly. phpMyAdmin's *Users* page can be used for this.

3.1 Linux distributions

phpMyAdmin is included in most Linux distributions. It is recommended to use distribution packages when possible - they usually provide integration to your distribution and you will automatically get security updates from your distribution.

3.1.1 Debian and Ubuntu

Most Debian and Ubuntu versions include a phpMyAdmin package, but be aware that the configuration file is maintained in `/etc/phpmyadmin` and may differ in some ways from the official phpMyAdmin documentation. Specifically, it does:

- Configuration of a web server (works for Apache and lighttpd).
- Creating of *phpMyAdmin configuration storage* using dbconfig-common.
- Securing setup script, see *Setup script on Debian, Ubuntu and derivatives*.

More specific details about installing Debian or Ubuntu packages are available in our wiki.

See also

More information can be found in README.Debian (it is installed as `/usr/share/doc/phpmyadmin/README.Debian` with the package).

3.1.2 OpenSUSE

OpenSUSE already comes with phpMyAdmin package, just install packages from the openSUSE Build Service.

3.1.3 Gentoo

Gentoo ships the phpMyAdmin package, both in a near-stock configuration as well as in a `webapp-config` configuration. Use `emerge dev-db/phpmyadmin` to install.

3.1.4 Mandriva

Mandriva ships the phpMyAdmin package in their `contrib` branch and can be installed via the usual Control Center.

3.1.5 Fedora

Fedora ships the phpMyAdmin package, but be aware that the configuration file is maintained in `/etc/phpMyAdmin/` and may differ in some ways from the official phpMyAdmin documentation.

3.1.6 Red Hat Enterprise Linux

Red Hat Enterprise Linux itself and thus derivatives like CentOS don't ship phpMyAdmin, but the Fedora-driven repository Extra Packages for Enterprise Linux (EPEL) is doing so, if it's enabled. But be aware that the configuration file is maintained in `/etc/phpMyAdmin/` and may differ in some ways from the official phpMyAdmin documentation.

3.2 Installing on Windows

The easiest way to get phpMyAdmin on Windows is using third party products which include phpMyAdmin together with a database and web server such as XAMPP.

You can find more of such options at Wikipedia.

3.3 Installing from Git

In order to install from Git, you'll need a few supporting applications:

- Git to download the source, or you can download the most recent source directly from Github
- Composer
- Node.js (version 12 or higher)
- Yarn

You can clone current phpMyAdmin source from `https://github.com/phpmyadmin/phpmyadmin.git`:

```
git clone https://github.com/phpmyadmin/phpmyadmin.git
```

Additionally you need to install dependencies using Composer:

```
composer update
```

If you do not intend to develop, you can skip the installation of developer tools by invoking:

```
composer update --no-dev
```

Finally, you'll need to use Yarn to install some JavaScript dependencies:

```
yarn install --production
```

3.4 Installing using Composer

You can install phpMyAdmin using the Composer tool, since 4.7.0 the releases are automatically mirrored to the default Packagist repository.

Note

The content of the Composer repository is automatically generated separately from the releases, so the content doesn't have to be 100% same as when you download the tarball. There should be no functional differences though.

To install phpMyAdmin simply run:

```
composer create-project phpmyadmin/phpmyadmin
```

Alternatively you can use our own composer repository, which contains the release tarballs and is available at <https://www.phpmyadmin.net/packages.json>:

```
composer create-project phpmyadmin/phpmyadmin --repository-url=https://www.phpmyadmin.
↪net/packages.json --no-dev
```

3.5 Installing using Docker

phpMyAdmin comes with a Docker official image, which you can easily deploy. You can download it using:

```
docker pull phpmyadmin
```

The phpMyAdmin server will listen on port 80. It supports several ways of configuring the link to the database server, either by Docker's link feature by linking your database container to `db` for phpMyAdmin (by specifying `--link your_db_host:db`) or by environment variables (in this case it's up to you to set up networking in Docker to allow the phpMyAdmin container to access the database container over the network).

3.5.1 Docker environment variables

You can configure several phpMyAdmin features using environment variables:

PMA_ARBITRARY

Allows you to enter a database server hostname on login form.

See also

$cfg['AllowArbitraryServer']

PMA_HOST

Hostname or IP address of the database server to use.

See also

$cfg['Servers'][$i]['host']

PMA_HOSTS

Comma-separated hostnames or IP addresses of the database servers to use.

> **Note**
>
> Used only if *PMA_HOST* is empty.

PMA_VERBOSE

Verbose name of the database server.

> **See also**
>
> *$cfg['Servers'][$i]['verbose']*

PMA_VERBOSES

Comma-separated verbose name of the database servers.

> **Note**
>
> Used only if *PMA_VERBOSE* is empty.

PMA_USER

User name to use for *Config authentication mode*.

PMA_PASSWORD

Password to use for *Config authentication mode*.

PMA_PORT

Port of the database server to use.

PMA_PORTS

Comma-separated ports of the database server to use.

> **Note**
>
> Used only if *PMA_PORT* is empty.

PMA_SOCKET

Socket file for the database connection.

PMA_SOCKETS

Comma-separated list of socket files for the database connections.

> **Note**
>
> Used only if *PMA_SOCKET* is empty.

PMA_ABSOLUTE_URI

The fully-qualified path (`https://pma.example.net/`) where the reverse proxy makes phpMyAdmin available.

> **See also**
>
> *$cfg['PmaAbsoluteUri']*

PMA_QUERYHISTORYDB

When set to *true*, enables storing SQL history to *$cfg['Servers'][$i]['pmadb']*. When *false*, history is stored in the browser and is cleared when logging out.

> **See also**
>
> *$cfg['Servers'][$i]['history']*

> **See also**
>
> *$cfg['QueryHistoryDB']*

PMA_QUERYHISTORYMAX

When set to an integer, controls the number of history items.

> **See also**
>
> *$cfg['QueryHistoryMax']*

PMA_CONTROLHOST

When set, this points to an alternate database host used for storing the "*phpMyAdmin configuration storage*" database.

> **See also**
>
> *$cfg['Servers'][$i]['controlhost']*

PMA_CONTROLUSER

Defines the username for phpMyAdmin to use for the "*phpMyAdmin configuration storage*" database.

> **See also**
>
> *$cfg['Servers'][$i]['controluser']*

PMA_CONTROLPASS

Defines the password for phpMyAdmin to use for the "*phpMyAdmin configuration storage*" database.

> **See also**
>
> *$cfg['Servers'][$i]['controlpass']*

PMA_CONTROLPORT

When set, will override the default port (*3306*) for connecting to the control host.

> **See also**
>
> *$cfg['Servers'][$i]['controlport']*

PMA_PMADB

When set, define the name of the database to be used for the "*phpMyAdmin configuration storage*" database. When not set, the advanced features are not enabled by default: they can still potentially be enabled by the user when logging in with the *Zero configuration* feature.

> **Note**
>
> Suggested values: *phpmyadmin* or *pmadb*

> **See also**
>
> *$cfg['Servers'][$i]['pmadb']*

HIDE_PHP_VERSION

If defined, this option will hide the PHP version (*expose_php = Off*). Set to any value (such as *HIDE_PHP_VERSION=true*).

UPLOAD_LIMIT

If set, this option will override the default value for apache and php-fpm (this will change `upload_max_filesize` and `post_max_size` values).

> **Note**
>
> Format as *[0-9+](K,M,G)* default value is *2048K*

MEMORY_LIMIT

If set, this option will override the phpMyAdmin memory limit *$cfg['MemoryLimit']* and PHP's *memory_limit*.

> **Note**
>
> Format as *[0-9+](K,M,G)* where *K* is for Kilobytes, *M* for Megabytes, *G* for Gigabytes and *1K* = 1024 bytes. Default value is *512M*.

MAX_EXECUTION_TIME

If set, this option will override the maximum execution time in seconds for phpMyAdmin *$cfg['ExecTimeLimit']* and PHP's *max_execution_time*.

> **Note**
>
> Format as *[0-9+]*. Default value is *600*.

PMA_CONFIG_BASE64

If set, this option will override the default *config.inc.php* with the base64 decoded contents of the variable.

PMA_USER_CONFIG_BASE64

If set, this option will override the default *config.user.inc.php* with the base64 decoded contents of the variable.

PMA_UPLOADDIR

If set, this option will set the path where files can be saved to be available to import (*$cfg['UploadDir']*)

PMA_SAVEDIR

If set, this option will set the path where exported files can be saved (*$cfg['SaveDir']*)

APACHE_PORT

If set, this option will change the default Apache port from *80* in case you want it to run on a different port like an unprivileged port. Set to any port value (such as *APACHE_PORT=8090*).

PMA_SSL_DIR

Define the path used for SSL files generated from environment variables, default value is */etc/phpmyadmin/ssl*.

PMA_SSL

When set to *1*, defines SSL usage for the MySQL connection.

> **See also**
>
> *$cfg['Servers'][$i]['ssl']*

PMA_SSLS

Comma-separated list of *0* and *1* defining SSL usage for the corresponding MySQL connections.

PMA_SSL_VERIFY

When set to *1*, enables SSL certificate verification for the MySQL connection.

> **See also**
>
> *$cfg['Servers'][$i]['ssl_verify']*

PMA_SSL_VERIFIES

Comma-separated list of *0* and *1* to enable or disable SSL certificate verification for multiple MySQL connections.

> **See also**
>
> *$cfg['Servers'][$i]['ssl_verify']*

PMA_SSL_CA

In the context of mutual TLS security, allows setting your CA file as a string inside the default *config.inc.php*.

> **See also**
>
> *$cfg['Servers'][$i]['ssl_ca']*

PMA_SSL_CAS

In the context of mutual TLS security, allows setting multiple CA files as a comma-separated list of strings inside the default *config.inc.php*.

PMA_SSL_CA_BASE64

In the context of mutual TLS security, allows setting your CA file as a base64 string inside the default *config.inc.php*.

> **See also**
>
> *$cfg['Servers'][$i]['ssl_ca']*

PMA_SSL_CAS_BASE64

In the context of mutual TLS security, allows setting multiple CA files as a comma-separated list of base64 strings inside the default *config.inc.php*.

PMA_SSL_CERT

In the context of mutual TLS security, allows setting your CERT file as a string inside the default *config.inc.php*.

> **See also**
>
> *$cfg['Servers'][$i]['ssl_cert']*

PMA_SSL_CERTS

In the context of mutual TLS security, allows setting multiple CERT files as a comma-separated list of strings inside the default *config.inc.php*.

PMA_SSL_CERT_BASE64

In the context of mutual TLS security, allows setting your CERT file as a base64 string inside the default *config.inc.php*.

> **See also**
>
> *$cfg['Servers'][$i]['ssl_cert']*

PMA_SSL_CERTS_BASE64

In the context of mutual TLS security, allows setting multiple CERT files as a comma-separated list of base64 strings inside the default *config.inc.php*.

PMA_SSL_KEY

In the context of mutual TLS security, allows setting your KEY file as a string inside the default *config.inc.php*.

PMA_SSL_KEYS

In the context of mutual TLS security, allows setting multiple KEY files as a comma-separated list of strings inside the default *config.inc.php*.

> **See also**
>
> *$cfg['Servers'][$i]['ssl_key']*

PMA_SSL_KEY_BASE64

In the context of mutual TLS security, allows setting your KEY file as a base64 string inside the default *config.inc.php*.

> **See also**
>
> *$cfg['Servers'][$i]['ssl_key']*

PMA_SSL_KEYS_BASE64

In the context of mutual TLS security, allows setting multiple KEY files as a comma-separated list of base64 strings inside the default *config.inc.php*.

TZ

If defined, this option will change the default PHP *date.timezone* from *UTC*.

> **See also**
>
> *$cfg['Servers'][$i]['SessionTimeZone']*

By default, *Cookie authentication mode* is used, but if *PMA_USER* and *PMA_PASSWORD* are set, it is switched to *Config authentication mode*.

> **Note**
>
> The credentials you need to log in are stored in the MySQL server, in case of Docker image, there are various ways to set it (for example `MYSQL_ROOT_PASSWORD` when starting the MySQL container). Please check documentation for MariaDB container or MySQL container.

3.5.2 Customizing configuration

Additionally configuration can be tweaked by `/etc/phpmyadmin/config.user.inc.php`. If this file exists, it will be loaded after configuration is generated from above environment variables, so you can override any configuration variable. This configuration can be added as a volume when invoking docker using *-v /some/local/directory/config.user.inc.php:/etc/phpmyadmin/config.user.inc.php* parameters.

Note that the supplied configuration file is applied after *Docker environment variables*, but you can override any of the values.

For example to change the default behavior of CSV export you can use the following configuration file:

```
<?php
$cfg['Export']['csv_columns'] = true;
```

You can also use it to define server configuration instead of using the environment variables listed in *Docker environment variables*:

```
<?php
/* Override Servers array */
$cfg['Servers'] = [
    1 => [
        'auth_type' => 'cookie',
        'host' => 'mydb1',
        'port' => 3306,
        'verbose' => 'Verbose name 1',
    ],
    2 => [
        'auth_type' => 'cookie',
        'host' => 'mydb2',
        'port' => 3306,
        'verbose' => 'Verbose name 2',
    ],
];
```

See also

See *Configuration* for detailed description of configuration options.

3.5.3 Docker Volumes

You can use the following volumes to customize image behavior:

`/etc/phpmyadmin/config.user.inc.php`

Can be used for additional settings, see the previous chapter for more details.

`/sessions/`

Directory where PHP sessions are stored. You might want to share this for example when using *Signon authentication mode*.

`/www/themes/`

Directory where phpMyAdmin looks for themes. By default only those shipped with phpMyAdmin are included, but you can include additional phpMyAdmin themes (see *Custom Themes*) by using Docker volumes.

3.5.4 Docker Examples

To connect phpMyAdmin to a given server use:

```
docker run --name phpmyadmin -d -e PMA_HOST=dbhost -p 8080:80 phpmyadmin:latest
```

To connect phpMyAdmin to more servers use:

```
docker run --name phpmyadmin -d -e PMA_HOSTS=dbhost1,dbhost2,dbhost3 -p 8080:80␣
↪phpmyadmin:latest
```

To use arbitrary server option:

```
docker run --name phpmyadmin -d --link mysql_db_server:db -p 8080:80 -e PMA_ARBITRARY=1␣
↪phpmyadmin:latest
```

You can also link the database container using Docker:

```
docker run --name phpmyadmin -d --link mysql_db_server:db -p 8080:80 phpmyadmin:latest
```

Running with additional configuration:

```
docker run --name phpmyadmin -d --link mysql_db_server:db -p 8080:80 -v /some/local/
↪directory/config.user.inc.php:/etc/phpmyadmin/config.user.inc.php phpmyadmin:latest
```

Running with additional themes:

```
docker run --name phpmyadmin -d --link mysql_db_server:db -p 8080:80 -v /some/local/
↪directory/custom/phpmyadmin/themeName/:/var/www/html/themes/themeName/␣
↪phpmyadmin:latest
```

3.5.5 Using docker-compose

Alternatively, you can also use docker-compose with the docker-compose.yml from <https://github.com/phpmyadmin/docker>. This will run phpMyAdmin with an arbitrary server - allowing you to specify MySQL/MariaDB server on the login page.

```
docker compose up -d
```

3.5.6 Customizing configuration file using docker-compose

You can use an external file to customize phpMyAdmin configuration and pass it using the volumes directive:

```
phpmyadmin:
    image: phpmyadmin:latest
    container_name: phpmyadmin
    environment:
     - PMA_ARBITRARY=1
    restart: always
    ports:
     - 8080:80
    volumes:
     - /sessions
     - ~/docker/phpmyadmin/config.user.inc.php:/etc/phpmyadmin/config.user.inc.php
     - /custom/phpmyadmin/theme/:/www/themes/theme/
```

See also

Customizing configuration

3.5.7 Running behind haproxy in a subdirectory

When you want to expose phpMyAdmin running in a Docker container in a subdirectory, you need to rewrite the request path in the server proxying the requests.

For example, using haproxy it can be done as:

```
frontend http
    bind *:80
```

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```
    option forwardfor
    option http-server-close

    ### NETWORK restriction
    acl LOCALNET  src 10.0.0.0/8 192.168.0.0/16 172.16.0.0/12

    # /phpmyadmin
    acl phpmyadmin  path_dir /phpmyadmin
    use_backend phpmyadmin if phpmyadmin LOCALNET

backend phpmyadmin
    mode http

    reqirep  ^(GET|POST|HEAD)\ /phpmyadmin/(.*)     \1\ /\2

    # phpMyAdmin container IP
    server localhost     172.30.21.21:80
```

When using traefik, something like following should work:

```
defaultEntryPoints = ["http"]
[entryPoints]
  [entryPoints.http]
  address = ":80"
    [entryPoints.http.redirect]
      regex = "(http:\\/\\/[^\\/]+\\/([^\\?\\.]+)[^\\/])$"
      replacement = "$1/"

[backends]
  [backends.myadmin]
    [backends.myadmin.servers.myadmin]
    url="http://internal.address.to.pma"

[frontends]
   [frontends.myadmin]
   backend = "myadmin"
   passHostHeader = true
     [frontends.myadmin.routes.default]
     rule="PathPrefixStrip:/phpmyadmin/;AddPrefix:/"
```

You then should specify *PMA_ABSOLUTE_URI* in the docker-compose configuration:

```
version: '2'

services:
  phpmyadmin:
    restart: always
    image: phpmyadmin:latest
    container_name: phpmyadmin
    hostname: phpmyadmin
    domainname: example.com
    ports:
```

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```
    - 8000:80
  environment:
    - PMA_HOSTS=172.26.36.7,172.26.36.8,172.26.36.9,172.26.36.10
    - PMA_VERBOSES=production-db1,production-db2,dev-db1,dev-db2
    - PMA_USER=root
    - PMA_PASSWORD=
    - PMA_ABSOLUTE_URI=http://example.com/phpmyadmin/
```

3.6 IBM Cloud

One of our users has created a helpful guide for installing phpMyAdmin on the IBM Cloud platform.

3.7 Quick Install

1. Choose an appropriate distribution kit from the phpmyadmin.net Downloads page. Some kits contain only the English messages, others contain all languages. We'll assume you chose a kit whose name looks like `phpMyAdmin-x.x.x-all-languages.tar.gz`.
2. Ensure you have downloaded a genuine archive, see *Verifying phpMyAdmin releases*.
3. Untar or unzip the distribution (be sure to unzip the subdirectories): `tar -xzvf phpMyAdmin_x.x.x-all-languages.tar.gz` in your webserver's document root. If you don't have direct access to your document root, put the files in a directory on your local machine, and, after step 4, transfer the directory on your web server using, for example, FTP.
4. Ensure that all the scripts have the appropriate owner (if PHP is running in safe mode, having some scripts with an owner different from the owner of other scripts will be a problem). See *4.2 What's the preferred way of making phpMyAdmin secure against evil access?* and *1.26 I just installed phpMyAdmin in my document root of IIS but I get the error "No input file specified" when trying to run phpMyAdmin.* for suggestions.
5. Now you must configure your installation. There are two methods that can be used. Traditionally, users have hand-edited a copy of `config.inc.php`, but now a wizard-style setup script is provided for those who prefer a graphical installation. Creating a `config.inc.php` is still a quick way to get started and needed for some advanced features.

3.7.1 Manually creating the file

To manually create the file, simply use your text editor to create the file `config.inc.php` (you can copy `config.sample.inc.php` to get a minimal configuration file) in the main (top-level) phpMyAdmin directory (the one that contains `index.php`). phpMyAdmin first loads the default configuration values and then overrides those values with anything found in `config.inc.php`. If the default value is okay for a particular setting, there is no need to include it in `config.inc.php`. You'll probably need only a few directives to get going; a simple configuration may look like this:

```
<?php
// The string is a hexadecimal representation of a 32-bytes long string of random bytes.
$cfg['blowfish_secret'] = sodium_hex2bin(
↪'f16ce59f45714194371b48fe362072dc3b019da7861558cd4ad29e4d6fb13851');

$i=0;
$i++;
$cfg['Servers'][$i]['auth_type']     = 'cookie';
```

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```
// if you insist on "root" having no password:
// $cfg['Servers'][$i]['AllowNoPassword'] = true;
```

Or, if you prefer to not be prompted every time you log in:

```
<?php

$i=0;
$i++;
$cfg['Servers'][$i]['user']          = 'root';
$cfg['Servers'][$i]['password']      = 'changeme'; // use here your password
$cfg['Servers'][$i]['auth_type']     = 'config';
```

Warning

Storing passwords in the configuration is insecure as anybody can then manipulate your database.

For a full explanation of possible configuration values, see the *Configuration* of this document.

3.7.2 Using the Setup script

Instead of manually editing `config.inc.php`, you can use phpMyAdmin's setup feature. The file can be generated using the setup and you can download it for upload to the server.

Next, open your browser and visit the location where you installed phpMyAdmin, with the `/setup` suffix. The changes are not saved to the server, you need to use the *Download* button to save them to your computer and then upload to the server.

Now the file is ready to be used. You can choose to review or edit the file with your favorite editor, if you prefer to set some advanced options that the setup script does not provide.

1. If you are using the `auth_type` "config", it is suggested that you protect the phpMyAdmin installation directory because using config does not require a user to enter a password to access the phpMyAdmin installation. Use of an alternate authentication method is recommended, for example with HTTP–AUTH in a *.htaccess* file or switch to using `auth_type` cookie or http. See the *ISPs, multi-user installations* for additional information, especially *4.4 phpMyAdmin always gives "Access denied" when using HTTP authentication.*.
2. Open the main phpMyAdmin directory in your browser. phpMyAdmin should now display a welcome screen and your databases, or a login dialog if using *HTTP* or cookie authentication mode.

Setup script on Debian, Ubuntu and derivatives

Debian and Ubuntu have changed the way in which the setup script is enabled and disabled, in a way that single command has to be executed for either of these.

To allow editing configuration invoke:

```
/usr/sbin/pma-configure
```

To block editing configuration invoke:

```
/usr/sbin/pma-secure
```

Setup script on openSUSE

Some openSUSE releases do not include setup script in the package. In case you want to generate configuration on these you can either download original package from <https://www.phpmyadmin.net/> or use setup script on our demo server: <https://demo.phpmyadmin.net/master/setup/>.

3.8 Verifying phpMyAdmin releases

Since July 2015 all phpMyAdmin releases are cryptographically signed by the releasing developer, who through January 2016 was Marc Delisle. His key id is 0xFEFC65D181AF644A, his PGP fingerprint is:

```
436F F188 4B1A 0C3F DCBF 0D79 FEFC 65D1 81AF 644A
```

and you can get more identification information from <https://keybase.io/lem9>.

Beginning in January 2016, the release manager is Isaac Bennetch. His key id is 0xCE752F178259BD92, and his PGP fingerprint is:

```
3D06 A59E CE73 0EB7 1B51 1C17 CE75 2F17 8259 BD92
```

and you can get more identification information from <https://keybase.io/ibennetch>.

Some additional downloads (for example themes) might be signed by Michal Čihař. His key id is 0x9C27B31342B7511D, and his PGP fingerprint is:

```
63CB 1DF1 EF12 CF2A C0EE 5A32 9C27 B313 42B7 511D
```

and you can get more identification information from <https://keybase.io/nijel>.

You should verify that the signature matches the archive you have downloaded. This way you can be sure that you are using the same code that was released. You should also verify the date of the signature to make sure that you downloaded the latest version.

Each archive is accompanied by `.asc` files which contain the PGP signature for it. Once you have both of them in the same folder, you can verify the signature:

```
$ gpg --verify phpMyAdmin-4.5.4.1-all-languages.zip.asc
gpg: Signature made Fri 29 Jan 2016 08:59:37 AM EST using RSA key ID 8259BD92
gpg: Can't check signature: public key not found
```

As you can see gpg complains that it does not know the public key. At this point, you should do one of the following steps:

- Download the keyring from our download server, then import it with:

```
$ gpg --import phpmyadmin.keyring
```

- Download and import the key from one of the key servers:

```
$ gpg --keyserver hkp://pgp.mit.edu --recv-keys 3D06A59ECE730EB71B511C17CE752F178259BD92
gpg: requesting key 8259BD92 from hkp server pgp.mit.edu
gpg: key 8259BD92: public key "Isaac Bennetch <bennetch@gmail.com>" imported
gpg: no ultimately trusted keys found
gpg: Total number processed: 1
gpg:               imported: 1  (RSA: 1)
```

This will improve the situation a bit - at this point, you can verify that the signature from the given key is correct but you still can not trust the name used in the key:

```
$ gpg --verify phpMyAdmin-4.5.4.1-all-languages.zip.asc
gpg: Signature made Fri 29 Jan 2016 08:59:37 AM EST using RSA key ID 8259BD92
gpg: Good signature from "Isaac Bennetch <bennetch@gmail.com>"
gpg:                 aka "Isaac Bennetch <isaac@bennetch.org>"
gpg: WARNING: This key is not certified with a trusted signature!
gpg:          There is no indication that the signature belongs to the owner.
Primary key fingerprint: 3D06 A59E CE73 0EB7 1B51  1C17 CE75 2F17 8259 BD92
```

The problem here is that anybody could issue the key with this name. You need to ensure that the key is actually owned by the mentioned person. The GNU Privacy Handbook covers this topic in the chapter Validating other keys on your public keyring. The most reliable method is to meet the developer in person and exchange key fingerprints, however, you can also rely on the web of trust. This way you can trust the key transitively though signatures of others, who have met the developer in person.

Once the key is trusted, the warning will not occur:

```
$ gpg --verify phpMyAdmin-4.5.4.1-all-languages.zip.asc
gpg: Signature made Fri 29 Jan 2016 08:59:37 AM EST using RSA key ID 8259BD92
gpg: Good signature from "Isaac Bennetch <bennetch@gmail.com>" [full]
```

Should the signature be invalid (the archive has been changed), you would get a clear error regardless of the fact that the key is trusted or not:

```
$ gpg --verify phpMyAdmin-4.5.4.1-all-languages.zip.asc
gpg: Signature made Fri 29 Jan 2016 08:59:37 AM EST using RSA key ID 8259BD92
gpg: BAD signature from "Isaac Bennetch <bennetch@gmail.com>" [unknown]
```

3.9 phpMyAdmin configuration storage

Changed in version 3.4.0: Prior to phpMyAdmin 3.4.0 this was called Linked Tables Infrastructure, but the name was changed due to the extended scope of the storage.

For a whole set of additional features (*Bookmarks*, comments, *SQL*-history, tracking mechanism, *PDF*-generation, *Transformations*, *Relations* etc.) you need to create a set of special tables. Those tables can be located in your own database, or in a central database for a multi-user installation (this database would then be accessed by the controluser, so no other user should have rights to it).

3.9.1 Zero configuration

In many cases, this database structure can be automatically created and configured. This is called "Zero Configuration" mode and can be particularly useful in shared hosting situations. "Zeroconf" mode is on by default, to disable set *$cfg['ZeroConf']* to false.

The following three scenarios are covered by the Zero Configuration mode:

- When entering a database where the configuration storage tables are not present, phpMyAdmin offers to create them from the Operations tab.
- When entering a database where the tables do already exist, the software automatically detects this and begins using them. This is the most common situation; after the tables are initially created automatically they are continually used without disturbing the user; this is also most useful on shared hosting where the user is not able to edit `config.inc.php` and usually the user only has access to one database.
- When having access to multiple databases, if the user first enters the database containing the configuration storage tables then switches to another database, phpMyAdmin continues to use the tables from the first database; the user is not prompted to create more tables in the new database.

3.9.2 Manual configuration

Please look at your `./sql/` directory, where you should find a file called *create_tables.sql*. (If you are using a Windows server, pay special attention to *1.23 I'm running MySQL on a Win32 machine. Each time I create a new table the table and column names are changed to lowercase!*).

If you already had this infrastructure and:

- upgraded to MySQL 4.1.2 or newer, please use `sql/upgrade_tables_mysql_4_1_2+.sql`.
- upgraded to phpMyAdmin 4.3.0 or newer from 2.5.0 or newer (<= 4.2.x), please use `sql/upgrade_column_info_4_3_0+.sql`.
- upgraded to phpMyAdmin 4.7.0 or newer from 4.3.0 or newer, please use `sql/upgrade_tables_4_7_0+.sql`.

and then create new tables by importing `sql/create_tables.sql`.

You can use your phpMyAdmin to create the tables for you. Please be aware that you may need special (administrator) privileges to create the database and tables, and that the script may need some tuning, depending on the database name.

After having imported the `sql/create_tables.sql` file, you should specify the table names in your `config.inc.php` file. The directives used for that can be found in the *Configuration*.

You will also need to have a controluser (*`$cfg['Servers'][$i]['controluser']`* and *`$cfg['Servers'][$i]['controlpass']`* settings) with the proper rights to those tables. For example you can create it using following statement:

And for any MariaDB version:

```
CREATE USER 'pma'@'localhost' IDENTIFIED VIA mysql_native_password USING 'pmapass';
GRANT SELECT, INSERT, UPDATE, DELETE ON `<pma_db>`.* TO 'pma'@'localhost';
```

For MySQL 8.0 and newer:

```
CREATE USER 'pma'@'localhost' IDENTIFIED WITH caching_sha2_password BY 'pmapass';
GRANT SELECT, INSERT, UPDATE, DELETE ON <pma_db>.* TO 'pma'@'localhost';
```

For MySQL older than 8.0:

```
CREATE USER 'pma'@'localhost' IDENTIFIED WITH mysql_native_password AS 'pmapass';
GRANT SELECT, INSERT, UPDATE, DELETE ON <pma_db>.* TO 'pma'@'localhost';
```

Note that MySQL installations with PHP older than 7.4 and MySQL newer than 8.0 may require using the mysql_native_password authentication as a workaround, see *1.45 I get an error message about unknown authentication method caching_sha2_password when trying to log in* for details.

3.10 Upgrading from an older version

Warning

Never extract the new version over an existing installation of phpMyAdmin, always first remove the old files keeping just the configuration.

This way, you will not leave any old or outdated files in the directory, which can have severe security implications or can cause various breakages.

Simply copy `config.inc.php` from your previous installation into the newly unpacked one. Configuration files from old versions may require some tweaking as some options have been changed or removed. For compatibility with

PHP 5.3 and later, remove a `set_magic_quotes_runtime(0);` statement that you might find near the end of your configuration file.

The complete upgrade can be performed in a few simple steps:

1. Download the latest phpMyAdmin version from <https://www.phpmyadmin.net/downloads/>.
2. Rename existing phpMyAdmin folder (for example to `phpmyadmin-old`).
3. Unpack freshly downloaded phpMyAdmin to the desired location (for example `phpmyadmin`).
4. Copy `config.inc.php`` from old location (`phpmyadmin-old`) to the new one (`phpmyadmin`).
5. Test that everything works properly.
6. Remove backup of a previous version (`phpmyadmin-old`).

If you have upgraded your MySQL server from a version previous to 4.1.2 to version 5.x or newer and if you use the phpMyAdmin configuration storage, you should run the *SQL* script found in `sql/upgrade_tables_mysql_4_1_2+.sql`.

If you have upgraded your phpMyAdmin to 4.3.0 or newer from 2.5.0 or newer (<= 4.2.x) and if you use the phpMyAdmin configuration storage, you should run the *SQL* script found in `sql/upgrade_column_info_4_3_0+.sql`.

Do not forget to clear the browser cache and to empty the old session by logging out and logging in again.

3.11 Using authentication modes

HTTP and cookie authentication modes are recommended in a **multi-user environment** where you want to give users access to their own database and don't want them to play around with others. Nevertheless, be aware that MS Internet Explorer seems to be really buggy about cookies, at least till version 6. Even in a **single-user environment**, you might prefer to use *HTTP* or cookie mode so that your user/password pair are not in clear in the configuration file.

HTTP and cookie authentication modes are more secure: the MySQL login information does not need to be set in the phpMyAdmin configuration file (except possibly for the *`$cfg['Servers'][$i]['controluser']`*). However, keep in mind that the password travels in plain text unless you are using the HTTPS protocol. In cookie mode, the password is stored, encrypted with the AES algorithm, in a temporary cookie.

Then each of the *true* users should be granted a set of privileges on a set of particular databases. Normally you shouldn't give global privileges to an ordinary user unless you understand the impact of those privileges (for example, you are creating a superuser). For example, to grant the user *real_user* with all privileges on the database *user_base*:

```
GRANT ALL PRIVILEGES ON user_base.* TO 'real_user'@localhost IDENTIFIED BY 'real_password
↪';
```

What the user may now do is controlled entirely by the MySQL user management system. With HTTP or cookie authentication mode, you don't need to fill the user/password fields inside the *`$cfg['Servers']`*.

See also

1.32 Can I use HTTP authentication with IIS?, *1.35 Can I use HTTP authentication with Apache CGI?*, *4.1 I'm an ISP. Can I setup one central copy of phpMyAdmin or do I need to install it for each customer?*, *4.2 What's the preferred way of making phpMyAdmin secure against evil access?*, *4.3 I get errors about not being able to include a file in /lang or in /libraries.*

3.11.1 HTTP authentication mode

- Uses *HTTP* Basic authentication method and allows you to log in as any valid MySQL user.
- Is supported with most PHP configurations. For *IIS* (*ISAPI*) support using *CGI* PHP see *1.32 Can I use HTTP authentication with IIS?*, for using with Apache *CGI* see *1.35 Can I use HTTP authentication with Apache CGI?*.
- When PHP is running under Apache's *mod_proxy_fcgi* (e.g. with PHP-FPM), `Authorization` headers are not passed to the underlying FCGI application, such that your credentials will not reach the application. In this case, you can add the following configuration directive:

```
SetEnvIf Authorization "(.*)" HTTP_AUTHORIZATION=$1
```

- See also *4.4 phpMyAdmin always gives "Access denied" when using HTTP authentication.* about not using the *.htaccess* mechanism along with '*HTTP*' authentication mode.

Note

There is no way to do proper logout in HTTP authentication, most browsers will remember credentials until there is no different successful authentication. Because of this, this method has a limitation that you can not login with the same user after logout.

3.11.2 Cookie authentication mode

- Username and password are stored in cookies during the session and password is deleted when it ends.
- With this mode, the user can truly log out of phpMyAdmin and log back in with the same username (this is not possible with *HTTP authentication mode*).
- If you want to allow users to enter any hostname to connect (rather than only servers that are configured in `config.inc.php`), see the *$cfg['AllowArbitraryServer']* directive.
- As mentioned in the *Requirements* section, having the `openssl` extension will speed up access considerably, but is not required.

3.11.3 Signon authentication mode

- This mode is a convenient way of using credentials from another application to authenticate to phpMyAdmin to implement a single signon solution.
- The other application has to store login information into session data (see *$cfg['Servers'][$i]['SignonSession']* and *$cfg['Servers'][$i]['SignonCookieParams']*) or you need to implement script to return the credentials (see *$cfg['Servers'][$i]['SignonScript']*).
- When no credentials are available, the user is being redirected to *$cfg['Servers'][$i]['SignonURL']*, where you should handle the login process.

The very basic example of saving credentials in a session is available as `examples/signon.php`:

```
<?php
/**
 * Single signon for phpMyAdmin
 *
 * This is just example how to use session based single signon with
 * phpMyAdmin, it is not intended to be perfect code and look, only
 * shows how you can integrate this functionality in your application.
 */
```

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```
declare(strict_types=1);

/* Use cookies for session */
ini_set('session.use_cookies', 'true');
/* Change this to true if using phpMyAdmin over https */
$secure_cookie = false;
/* Need to have cookie visible from parent directory */
session_set_cookie_params(0, '/', '', $secure_cookie, true);
/* Create signon session */
$session_name = 'SignonSession';
session_name($session_name);
// Uncomment and change the following line to match your $cfg['SessionSavePath']
//session_save_path('/foobar');
@session_start();

/* Was data posted? */
if (isset($_POST['user'])) {
    /* Store there credentials */
    $_SESSION['PMA_single_signon_user'] = $_POST['user'];
    $_SESSION['PMA_single_signon_password'] = $_POST['password'];
    $_SESSION['PMA_single_signon_host'] = $_POST['host'];
    $_SESSION['PMA_single_signon_port'] = $_POST['port'];
    /* Update another field of server configuration */
    $_SESSION['PMA_single_signon_cfgupdate'] = ['verbose' => 'Signon test'];
    $_SESSION['PMA_single_signon_HMAC_secret'] = hash('sha1', uniqid(strval(random_int(0,
↪ mt_getrandmax())), true));
    $id = session_id();
    /* Close that session */
    @session_write_close();
    /* Redirect to phpMyAdmin (should use absolute URL here!) */
    header('Location: ../index.php');
} else {
    /* Show simple form */
    header('Content-Type: text/html; charset=utf-8');

    echo '<?xml version="1.0" encoding="utf-8"?>' . "\n";
    echo '<!DOCTYPE HTML>
<html lang="en" dir="ltr">
<head>
<link rel="icon" href="../favicon.ico" type="image/x-icon">
<link rel="shortcut icon" href="../favicon.ico" type="image/x-icon">
<meta charset="utf-8">
<title>phpMyAdmin single signon example</title>
</head>
<body>';

    if (isset($_SESSION['PMA_single_signon_error_message'])) {
        echo '<p class="error">';
        echo $_SESSION['PMA_single_signon_error_message'];
        echo '</p>';
    }
```

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```
    echo '<form action="signon.php" method="post">
Username: <input type="text" name="user" autocomplete="username" spellcheck="false"><br>
Password: <input type="password" name="password" autocomplete="current-password"␣
↪spellcheck="false"><br>
Host: (will use the one from config.inc.php by default)
<input type="text" name="host"><br>
Port: (will use the one from config.inc.php by default)
<input type="text" name="port"><br>
<input type="submit">
</form>
</body>
</html>';
}
```

Alternatively, you can also use this way to integrate with OpenID as shown in `examples/openid.php`:

```
<?php
/**
 * Single signon for phpMyAdmin using OpenID
 *
 * This is just example how to use single signon with phpMyAdmin, it is
 * not intended to be perfect code and look, only shows how you can
 * integrate this functionality in your application.
 *
 * It uses OpenID pear package, see https://pear.php.net/package/OpenID
 *
 * User first authenticates using OpenID and based on content of $AUTH_MAP
 * the login information is passed to phpMyAdmin in session data.
 */

declare(strict_types=1);

if (false === @include_once 'OpenID/RelyingParty.php') {
    exit;
}

/* Change this to true if using phpMyAdmin over https */
$secure_cookie = false;

/**
 * Map of authenticated users to MySQL user/password pairs.
 */
$AUTH_MAP = [
    'https://launchpad.net/~username' => [
        'user' => 'root',
        'password' => '',
    ],
];

// phpcs:disable PSR1.Files.SideEffects,Squiz.Functions.GlobalFunction
```

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```
/**
 * Simple function to show HTML page with given content.
 *
 * @param string $contents Content to include in page
 */
function Show_page($contents): void
{
    header('Content-Type: text/html; charset=utf-8');

    echo '<?xml version="1.0" encoding="utf-8"?>' . "\n";
    echo '<!DOCTYPE HTML>
<html lang="en" dir="ltr">
<head>
<link rel="icon" href="../favicon.ico" type="image/x-icon">
<link rel="shortcut icon" href="../favicon.ico" type="image/x-icon">
<meta charset="utf-8">
<title>phpMyAdmin OpenID signon example</title>
</head>
<body>';

    if (isset($_SESSION['PMA_single_signon_error_message'])) {
        echo '<p class="error">' . $_SESSION['PMA_single_signon_message'] . '</p>';
        unset($_SESSION['PMA_single_signon_message']);
    }

    echo $contents;
    echo '</body></html>';
}

/**
 * Display error and exit
 *
 * @param Exception $e Exception object
 */
function Die_error($e): void
{
    $contents = "<div class='relyingparty_results'>\n";
    $contents .= '<pre>' . htmlspecialchars($e->getMessage()) . "</pre>\n";
    $contents .= "</div class='relyingparty_results'>";
    Show_page($contents);
    exit;
}

// phpcs:enable

/* Need to have cookie visible from parent directory */
session_set_cookie_params(0, '/', '', $secure_cookie, true);
/* Create signon session */
$session_name = 'SignonSession';
session_name($session_name);
@session_start();
```

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```
// Determine realm and return_to
$base = 'http';
if (isset($_SERVER['HTTPS']) && $_SERVER['HTTPS'] === 'on') {
    $base .= 's';
}

$base .= '://' . $_SERVER['SERVER_NAME'] . ':' . $_SERVER['SERVER_PORT'];

$realm = $base . '/';
$returnTo = $base . dirname($_SERVER['PHP_SELF']);
if ($returnTo[strlen($returnTo) - 1] !== '/') {
    $returnTo .= '/';
}

$returnTo .= 'openid.php';

/* Display form */
if ((! count($_GET) && ! count($_POST)) || isset($_GET['phpMyAdmin'])) {
    /* Show simple form */
    $content = '<form action="openid.php" method="post">
OpenID: <input type="text" name="identifier"><br>
<input type="submit" name="start">
</form>';
    Show_page($content);
    exit;
}

/* Grab identifier */
$identifier = null;
if (isset($_POST['identifier']) && is_string($_POST['identifier'])) {
    $identifier = $_POST['identifier'];
} elseif (isset($_SESSION['identifier']) && is_string($_SESSION['identifier'])) {
    $identifier = $_SESSION['identifier'];
}

/* Create OpenID object */
try {
    $o = new OpenID_RelyingParty($returnTo, $realm, $identifier);
} catch (Throwable $e) {
    Die_error($e);
}

/* Redirect to OpenID provider */
if (isset($_POST['start'])) {
    try {
        $authRequest = $o->prepare();
    } catch (Throwable $e) {
        Die_error($e);
    }

    $url = $authRequest->getAuthorizeURL();
```

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```
    header('Location: ' . $url);
    exit;
}

/* Grab query string */
if (! count($_POST)) {
    [, $queryString] = explode('?', $_SERVER['REQUEST_URI']);
} else {
    // Fetch the raw query body
    $queryString = file_get_contents('php://input');
}

/* Check reply */
try {
    $message = new OpenID_Message($queryString, OpenID_Message::FORMAT_HTTP);
} catch (Throwable $e) {
    Die_error($e);
}

$id = $message->get('openid.claimed_id');

if (empty($id) || ! isset($AUTH_MAP[$id])) {
    Show_page('<p>User not allowed!</p>');
    exit;
}

$_SESSION['PMA_single_signon_user'] = $AUTH_MAP[$id]['user'];
$_SESSION['PMA_single_signon_password'] = $AUTH_MAP[$id]['password'];
$_SESSION['PMA_single_signon_HMAC_secret'] = hash('sha1', uniqid(strval(random_int(0, mt_
↪getrandmax())), true));
session_write_close();
/* Redirect to phpMyAdmin (should use absolute URL here!) */
header('Location: ../index.php');
```

If you intend to pass the credentials using some other means than, you have to implement wrapper in PHP to get that data and set it to *$cfg['Servers'][$i]['SignonScript']*. There is a very minimal example in `examples/signon-script.php`:

```
<?php
/**
 * Single signon for phpMyAdmin
 *
 * This is just example how to use script based single signon with
 * phpMyAdmin, it is not intended to be perfect code and look, only
 * shows how you can integrate this functionality in your application.
 */

declare(strict_types=1);

// phpcs:disable Squiz.Functions.GlobalFunction

/**
```

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```
 * This function returns username and password.
 *
 * It can optionally use configured username as parameter.
 *
 * @param string $user User name
 *
 * @return array
 */
function get_login_credentials($user)
{
    /* Optionally we can use passed username */
    if (! empty($user)) {
        return [
            $user,
            'password',
        ];
    }

    /* Here we would retrieve the credentials */
    return [
        'root',
        '',
    ];
}
```

See also

$cfg['Servers'][$i]['auth_type'], *$cfg['Servers'][$i]['SignonSession']*, *$cfg['Servers'][$i]['SignonCookieParams']*, *$cfg['Servers'][$i]['SignonScript']*, *$cfg['Servers'][$i]['SignonURL']*, *Example for signon authentication*

3.11.4 Config authentication mode

- This mode is sometimes the less secure one because it requires you to fill the *$cfg['Servers'][$i]['user']* and *$cfg['Servers'][$i]['password']* fields (and as a result, anyone who can read your `config.inc.php` can discover your username and password).
- In the *ISPs, multi-user installations* section, there is an entry explaining how to protect your configuration file.
- For additional security in this mode, you may wish to consider the Host authentication *$cfg['Servers'][$i]['AllowDeny']['order']* and *$cfg['Servers'][$i]['AllowDeny']['rules']* configuration directives.
- Unlike cookie and http, does not require a user to log in when first loading the phpMyAdmin site. This is by design but could allow any user to access your installation. Use of some restriction method is suggested, perhaps a *.htaccess* file with the HTTP-AUTH directive or disallowing incoming HTTP requests at one's router or firewall will suffice (both of which are beyond the scope of this manual but easily searchable with Google).

3.12 Securing your phpMyAdmin installation

The phpMyAdmin team tries hard to make the application secure, however there are always ways to make your installation more secure:

- Follow our Security announcements and upgrade phpMyAdmin whenever new vulnerability is published.
- Serve phpMyAdmin on HTTPS only. Preferably, you should use HSTS as well, so that you're protected from protocol downgrade attacks.
- Ensure your PHP setup follows recommendations for production sites, for example display_errors should be disabled.
- Remove the `test` directory from phpMyAdmin, unless you are developing and need a test suite.
- Remove the `setup` directory from phpMyAdmin, you will probably not use it after the initial setup.
- Properly choose an authentication method - *Cookie authentication mode* is probably the best choice for shared hosting.
- Deny access to auxiliary files in `./libraries/` or `./templates/` subfolders in your webserver configuration. Such configuration prevents from possible path exposure and cross side scripting vulnerabilities that might happen to be found in that code. For the Apache webserver, this is often accomplished with a *.htaccess* file in those directories.
- Deny access to temporary files, see *$cfg['TempDir']* (if that is placed inside your web root, see also *Web server upload/save/import directories*.
- It is generally a good idea to protect a public phpMyAdmin installation against access by robots as they usually can not do anything good there. You can do this using `robots.txt` file in the root of your webserver or limit access by web server configuration, see *1.42 How can I prevent robots from accessing phpMyAdmin?*.
- In case you don't want all MySQL users to be able to access phpMyAdmin, you can use *$cfg['Servers'][$i]['AllowDeny']['rules']* to limit them or *$cfg['Servers'][$i]['AllowRoot']* to deny root user access.
- Enable *Two-factor authentication* for your account.
- Consider hiding phpMyAdmin behind an authentication proxy, so that users need to authenticate prior to providing MySQL credentials to phpMyAdmin. You can achieve this by configuring your web server to request HTTP authentication. For example in Apache this can be done with:

  ```
  AuthType Basic
  AuthName "Restricted Access"
  AuthUserFile /usr/share/phpmyadmin/passwd
  Require valid-user
  ```

  Once you have changed the configuration, you need to create a list of users which can authenticate. This can be done using the **htpasswd** utility:

  ```
  htpasswd -c /usr/share/phpmyadmin/passwd username
  ```

- If you are afraid of automated attacks, enabling Captcha by *$cfg['CaptchaLoginPublicKey']* and *$cfg['CaptchaLoginPrivateKey']* might be an option.
- Failed login attempts are logged to syslog (if available, see *$cfg['AuthLog']*). This can allow using a tool such as fail2ban to block brute-force attempts. Note that the log file used by syslog is not the same as the Apache error or access log files.

- In case you're running phpMyAdmin together with other PHP applications, it is generally advised to use separate session storage for phpMyAdmin to avoid possible session-based attacks against it. You can use *$cfg['SessionSavePath']* to achieve this.

3.13 Using SSL for connection to database server

It is recommended to use SSL when connecting to remote database server. There are several configuration options involved in the SSL setup:

$cfg['Servers'][$i]['ssl']
: Defines whether to use SSL at all. If you enable only this, the connection will be encrypted, but there is not authentication of the connection - you can not verify that you are talking to the right server.

$cfg['Servers'][$i]['ssl_key'] **and** ***$cfg['Servers'][$i]['ssl_cert']***
: This is used for authentication of client to the server.

$cfg['Servers'][$i]['ssl_ca'] **and** ***$cfg['Servers'][$i]['ssl_ca_path']***
: The certificate authorities you trust for server certificates. This is used to ensure that you are talking to a trusted server.

$cfg['Servers'][$i]['ssl_verify']
: This configuration disables server certificate verification. Use with caution.

When the database server is using a local connection or private network and SSL can not be configured you can use *$cfg['MysqlSslWarningSafeHosts']* to explicitly list the hostnames that are considered secure.

See also

Google Cloud SQL with SSL, *Amazon RDS Aurora with SSL*, *$cfg['Servers'][$i]['ssl']*, *$cfg['Servers'][$i]['ssl_key']*, *$cfg['Servers'][$i]['ssl_cert']*, *$cfg['Servers'][$i]['ssl_ca']*, *$cfg['Servers'][$i]['ssl_ca_path']*, *$cfg['Servers'][$i]['ssl_ciphers']*, *$cfg['Servers'][$i]['ssl_verify']*

3.14 Known issues

3.14.1 Users with column-specific privileges are unable to "Browse"

If a user has only column-specific privileges on some (but not all) columns in a table, "Browse" will fail with an error message.

As a workaround, a bookmarked query with the same name as the table can be created, this will run when using the "Browse" link instead. Issue 11922.

3.14.2 Trouble logging back in after logging out using 'http' authentication

When using the 'http' `auth_type`, it can be impossible to log back in (when the logout comes manually or after a period of inactivity). Issue 11898.

CHAPTER

FOUR

CONFIGURATION

All configurable data is placed in `config.inc.php` in phpMyAdmin's toplevel directory. If this file does not exist, please refer to the *Installation* section to create one. This file only needs to contain the parameters you want to change from their corresponding default value in `libraries/config.default.php` (this file is not intended for changes).

See also

Examples for examples of configurations

If a directive is missing from your file, you can just add another line with the file. This file is for over-writing the defaults; if you wish to use the default value there's no need to add a line here.

The parameters which relate to design (like colors) are placed in `themes/themename/scss/_variables.scss`. You might also want to create `config.footer.inc.php` and `config.header.inc.php` files to add your site specific code to be included on start and end of each page.

Note

Some distributions (eg. Debian or Ubuntu) store `config.inc.php` in `/etc/phpmyadmin` instead of within phpMyAdmin sources.

4.1 Basic settings

`$cfg['PmaAbsoluteUri']`

Type
string

Default value
`''`

Changed in version 4.6.5: This setting was not available in phpMyAdmin 4.6.0 - 4.6.4.

Sets here the complete *URL* (with full path) to your phpMyAdmin installation's directory. E.g. `https://www.example.net/path_to_your_phpMyAdmin_directory/`. Note also that the *URL* on most of web servers are case sensitive (even on Windows). Don't forget the trailing slash at the end.

Starting with version 2.3.0, it is advisable to try leaving this blank. In most cases phpMyAdmin automatically detects the proper setting. Users of port forwarding or complex reverse proxy setup might need to set this.

A good test is to browse a table, edit a row and save it. There should be an error message if phpMyAdmin is having trouble auto–detecting the correct value. If you get an error that this must be set or if the autodetect code

fails to detect your path, please post a bug report on our bug tracker so we can improve the code.

See also

1.40 When accessing phpMyAdmin via an Apache reverse proxy, cookie login does not work., *2.5 Each time I want to insert or change a row or drop a database or a table, an error 404 (page not found) is displayed or, with HTTP or cookie authentication, I'm asked to log in again. What's wrong?*, *4.7 Authentication window is displayed more than once, why?*, *5.16 With Internet Explorer, I get "Access is denied" Javascript errors. Or I cannot make phpMyAdmin work under Windows.*

`$cfg['PmaNoRelation_DisableWarning']`

Type
boolean

Default value
false

Starting with version 2.3.0 phpMyAdmin offers a lot of features to work with master / foreign – tables (see *`$cfg['Servers'][$i]['pmadb']`*).

If you tried to set this up and it does not work for you, have a look on the *Structure* page of one database where you would like to use it. You will find a link that will analyze why those features have been disabled.

If you do not want to use those features set this variable to `true` to stop this message from appearing.

`$cfg['AuthLog']`

Type
string

Default value
`'auto'`

Added in version 4.8.0: This is supported since phpMyAdmin 4.8.0.

Configure authentication logging destination. Failed (or all, depending on *`$cfg['AuthLogSuccess']`*) authentication attempts will be logged according to this directive:

`auto`
Let phpMyAdmin automatically choose between `syslog` and `php`.

`syslog`
Log using syslog, using AUTH facility, on most systems this ends up in `/var/log/auth.log`.

`php`
Log into PHP error log.

`sapi`
Log into PHP SAPI logging.

`/path/to/file`
Any other value is treated as a filename and log entries are written there.

Note

When logging to a file, make sure its permissions are correctly set for a web server user, the setup should closely match instructions described in *`$cfg['TempDir']`*:

`$cfg['AuthLogSuccess']`

Type
boolean

Default value
false

Added in version 4.8.0: This is supported since phpMyAdmin 4.8.0.

Whether to log successful authentication attempts into *$cfg['AuthLog']*.

`$cfg['SuhosinDisableWarning']`

Type
boolean

Default value
false

A warning is displayed on the main page if Suhosin is detected.

You can set this parameter to `true` to stop this message from appearing.

`$cfg['LoginCookieValidityDisableWarning']`

Type
boolean

Default value
false

A warning is displayed on the main page if the PHP parameter `session.gc_maxlifetime` is lower than cookie validity configured in phpMyAdmin.

You can set this parameter to `true` to stop this message from appearing.

`$cfg['ServerLibraryDifference_DisableWarning']`

Type
boolean

Default value
false

Deprecated since version 4.7.0: This setting was removed as the warning has been removed as well.

A warning is displayed on the main page if there is a difference between the MySQL library and server version.

You can set this parameter to `true` to stop this message from appearing.

`$cfg['ReservedWordDisableWarning']`

Type
boolean

Default value
false

This warning is displayed on the Structure page of a table if one or more column names match with words which are MySQL reserved.

If you want to turn off this warning, you can set it to `true` and warning will no longer be displayed.

$cfg['TranslationWarningThreshold']

Type
integer

Default value
80

Show warning about incomplete translations on certain threshold.

$cfg['SendErrorReports']

Type
string

Default value
'ask'

Valid values are:

- ask
- always
- never

Sets the default behavior for JavaScript error reporting.

Whenever an error is detected in the JavaScript execution, an error report may be sent to the phpMyAdmin team if the user agrees.

The default setting of 'ask' will ask the user everytime there is a new error report. However you can set this parameter to 'always' to send error reports without asking for confirmation or you can set it to 'never' to never send error reports.

This directive is available both in the configuration file and in users preferences. If the person in charge of a multi-user installation prefers to disable this feature for all users, a value of 'never' should be set, and the *$cfg['UserprefsDisallow']* directive should contain 'SendErrorReports' in one of its array values.

$cfg['ConsoleEnterExecutes']

Type
boolean

Default value
false

Setting this to true allows the user to execute queries by pressing Enter instead of Ctrl+Enter. A new line can be inserted by pressing Shift+Enter.

The behaviour of the console can be temporarily changed using console's settings interface.

$cfg['AllowThirdPartyFraming']

Type
boolean|string

Default value
false

Setting this to true allows phpMyAdmin to be included inside a frame, and is a potential security hole allowing cross-frame scripting attacks or clickjacking. Setting this to 'sameorigin' prevents phpMyAdmin to be included from another document in a frame, unless that document belongs to the same domain.

4.2 Server connection settings

`$cfg['Servers']`

Type
array

Default value
one server array with settings listed below

Since version 1.4.2, phpMyAdmin supports the administration of multiple MySQL servers. Therefore, a *$cfg['Servers']*-array has been added which contains the login information for the different servers. The first *$cfg['Servers'][$i]['host']* contains the hostname of the first server, the second *$cfg['Servers'][$i]['host']* the hostname of the second server, etc. In `libraries/config.default.php`, there is only one section for server definition, however you can put as many as you need in `config.inc.php`, copy that block or needed parts (you don't have to define all settings, just those you need to change).

Note

The *$cfg['Servers']* array starts with `$cfg['Servers'][1]`. Do not use `$cfg['Servers'][0]`. If you want more than one server, just copy following section (including `$i` increment) several times. There is no need to define full server array, just define values you need to change.

`$cfg['Servers'][$i]['host']`

Type
string

Default value
`'localhost'`

The hostname or *IP* address of your `$i`-th MySQL-server. E.g. `localhost`.

Possible values are:

- hostname, e.g., `'localhost'` or `'mydb.example.org'`
- IP address, e.g., `'127.0.0.1'` or `'192.168.10.1'`
- IPv6 address, e.g. `2001:cdba:0000:0000:0000:0000:3257:9652`
- dot - `'.'`, i.e., use named pipes on windows systems
- empty - `''`, disables this server

Note

The hostname `localhost` is handled specially by MySQL and it uses the socket based connection protocol. To use TCP/IP networking, use an IP address or hostname such as `127.0.0.1` or `db.example.com`. You can configure the path to the socket with *$cfg['Servers'][$i]['socket']*.

See also

$cfg['Servers'][$i]['port'], <https://dev.mysql.com/doc/refman/8.0/en/connecting.html>

`$cfg['Servers'][$i]['port']`

Type
string

Default value
`''`

The port-number of your `$i`-th MySQL-server. Default is 3306 (leave blank).

Note

If you use `localhost` as the hostname, MySQL ignores this port number and connects with the socket, so if you want to connect to a port different from the default port, use `127.0.0.1` or the real hostname in *`$cfg['Servers'][$i]['host']`*.

See also

`$cfg['Servers'][$i]['host']`, <https://dev.mysql.com/doc/refman/8.0/en/connecting.html>

`$cfg['Servers'][$i]['socket']`

Type
string

Default value
`''`

The path to the socket to use. Leave blank for default. To determine the correct socket, check your MySQL configuration or, using the **`mysql`** command–line client, issue the `status` command. Among the resulting information displayed will be the socket used.

Note

This takes effect only if *`$cfg['Servers'][$i]['host']`* is set to `localhost`.

See also

`$cfg['Servers'][$i]['host']`, <https://dev.mysql.com/doc/refman/8.0/en/connecting.html>

`$cfg['Servers'][$i]['ssl']`

Type
boolean

Default value
false

Whether to enable SSL for the connection between phpMyAdmin and the MySQL server to secure the connection.

When using the `'mysql'` extension, none of the remaining `'ssl...'` configuration options apply.

We strongly recommend the `'mysqli'` extension when using this option.

See also

Using SSL for connection to database server, *Google Cloud SQL with SSL*, *Amazon RDS Aurora with SSL*, *$cfg['Servers'][$i]['ssl_key']*, *$cfg['Servers'][$i]['ssl_cert']*, *$cfg['Servers'][$i]['ssl_ca']*, *$cfg['Servers'][$i]['ssl_ca_path']*, *$cfg['Servers'][$i]['ssl_ciphers']*, *$cfg['Servers'][$i]['ssl_verify']*

$cfg['Servers'][$i]['ssl_key']

Type
string

Default value
NULL

Path to the client key file when using SSL for connecting to the MySQL server. This is used to authenticate the client to the server.

For example:

```
$cfg['Servers'][$i]['ssl_key'] = '/etc/mysql/server-key.pem';
```

See also

Using SSL for connection to database server, *Google Cloud SQL with SSL*, *Amazon RDS Aurora with SSL*, *$cfg['Servers'][$i]['ssl']*, *$cfg['Servers'][$i]['ssl_cert']*, *$cfg['Servers'][$i]['ssl_ca']*, *$cfg['Servers'][$i]['ssl_ca_path']*, *$cfg['Servers'][$i]['ssl_ciphers']*, *$cfg['Servers'][$i]['ssl_verify']*

$cfg['Servers'][$i]['ssl_cert']

Type
string

Default value
NULL

Path to the client certificate file when using SSL for connecting to the MySQL server. This is used to authenticate the client to the server.

See also

Using SSL for connection to database server, *Google Cloud SQL with SSL*, *Amazon RDS Aurora with SSL*, *$cfg['Servers'][$i]['ssl']*, *$cfg['Servers'][$i]['ssl_key']*, *$cfg['Servers'][$i]['ssl_ca']*, *$cfg['Servers'][$i]['ssl_ca_path']*, *$cfg['Servers'][$i]['ssl_ciphers']*, *$cfg['Servers'][$i]['ssl_verify']*

$cfg['Servers'][$i]['ssl_ca']

Type
string

Default value
NULL

Path to the CA file when using SSL for connecting to the MySQL server.

See also

Using SSL for connection to database server, *Google Cloud SQL with SSL*, *Amazon RDS Aurora with SSL*, *$cfg['Servers'][$i]['ssl']*, *$cfg['Servers'][$i]['ssl_key']*, *$cfg['Servers'][$i]['ssl_cert']*, *$cfg['Servers'][$i]['ssl_ca_path']*, *$cfg['Servers'][$i]['ssl_ciphers']*, *$cfg['Servers'][$i]['ssl_verify']*

`$cfg['Servers'][$i]['ssl_ca_path']`

Type
string

Default value
NULL

Directory containing trusted SSL CA certificates in PEM format.

See also

Using SSL for connection to database server, *Google Cloud SQL with SSL*, *Amazon RDS Aurora with SSL*, *$cfg['Servers'][$i]['ssl']*, *$cfg['Servers'][$i]['ssl_key']*, *$cfg['Servers'][$i]['ssl_cert']*, *$cfg['Servers'][$i]['ssl_ca']*, *$cfg['Servers'][$i]['ssl_ciphers']*, *$cfg['Servers'][$i]['ssl_verify']*

`$cfg['Servers'][$i]['ssl_ciphers']`

Type
string

Default value
NULL

List of allowable ciphers for SSL connections to the MySQL server.

See also

Using SSL for connection to database server, *Google Cloud SQL with SSL*, *Amazon RDS Aurora with SSL*, *$cfg['Servers'][$i]['ssl']*, *$cfg['Servers'][$i]['ssl_key']*, *$cfg['Servers'][$i]['ssl_cert']*, *$cfg['Servers'][$i]['ssl_ca']*, *$cfg['Servers'][$i]['ssl_ca_path']*, *$cfg['Servers'][$i]['ssl_verify']*

`$cfg['Servers'][$i]['ssl_verify']`

Type
boolean

Default value
true

Added in version 4.6.0: This is supported since phpMyAdmin 4.6.0.

If your PHP install uses the MySQL Native Driver (mysqlnd), your MySQL server is 5.6 or later, and your SSL certificate is self-signed, there is a chance your SSL connection will fail due to validation. Setting this to `false` will disable the validation check.

Since PHP 5.6.0 it also verifies whether server name matches CN of its certificate. There is currently no way to disable just this check without disabling complete SSL verification.

Warning

Disabling the certificate verification defeats purpose of using SSL. This will make the connection vulnerable to man in the middle attacks.

Note

This flag only works with PHP 5.6.16 or later.

See also

Using SSL for connection to database server, *Google Cloud SQL with SSL*, *Amazon RDS Aurora with SSL*, *$cfg['Servers'][$i]['ssl']*, *$cfg['Servers'][$i]['ssl_key']*, *$cfg['Servers'][$i]['ssl_cert']*, *$cfg['Servers'][$i]['ssl_ca']*, *$cfg['Servers'][$i]['ssl_ca_path']*, *$cfg['Servers'][$i]['ssl_ciphers']*, *$cfg['Servers'][$i]['ssl_verify']*

$cfg['Servers'][$i]['connect_type']

Type
string

Default value
`'tcp'`

Deprecated since version 4.7.0: This setting is no longer used as of 4.7.0, since MySQL decides the connection type based on host, so it could lead to unexpected results. Please set *$cfg['Servers'][$i]['host']* accordingly instead.

What type connection to use with the MySQL server. Your options are `'socket'` and `'tcp'`. It defaults to tcp as that is nearly guaranteed to be available on all MySQL servers, while sockets are not supported on some platforms. To use the socket mode, your MySQL server must be on the same machine as the Web server.

$cfg['Servers'][$i]['compress']

Type
boolean

Default value
false

Whether to use a compressed protocol for the MySQL server connection or not (experimental).

$cfg['Servers'][$i]['controlhost']

Type
string

Default value
`''`

Permits to use an alternate host to hold the configuration storage data.

> **See also**
>
> *$cfg['Servers'][$i]['control_*']*

$cfg['Servers'][$i]['controlport']

Type
string

Default value
''

Permits to use an alternate port to connect to the host that holds the configuration storage.

> **See also**
>
> *$cfg['Servers'][$i]['control_*']*

$cfg['Servers'][$i]['controluser']

Type
string

Default value
''

$cfg['Servers'][$i]['controlpass']

Type
string

Default value
''

This special account is used to access *phpMyAdmin configuration storage*. You don't need it in single user case, but if phpMyAdmin is shared it is recommended to give access to *phpMyAdmin configuration storage* only to this user and configure phpMyAdmin to use it. All users will then be able to use the features without need to have direct access to *phpMyAdmin configuration storage*.

Changed in version 2.2.5: those were called `stduser` and `stdpass`

> **See also**
>
> *Installation*, *Using authentication modes*, *phpMyAdmin configuration storage*, *$cfg['Servers'][$i]['pmadb']*, *$cfg['Servers'][$i]['controlhost']*, *$cfg['Servers'][$i]['controlport']*, *$cfg['Servers'][$i]['control_*']*

$cfg['Servers'][$i]['control_*']

Type
mixed

Added in version 4.7.0.

You can change any MySQL connection setting for control link (used to access *phpMyAdmin configuration storage*) using configuration prefixed with `control_`.

This can be used to change any aspect of the control connection, which by default uses same parameters as the user one.

For example you can configure SSL for the control connection:

```
// Enable SSL
$cfg['Servers'][$i]['control_ssl'] = true;
// Client secret key
$cfg['Servers'][$i]['control_ssl_key'] = '../client-key.pem';
// Client certificate
$cfg['Servers'][$i]['control_ssl_cert'] = '../client-cert.pem';
// Server certification authority
$cfg['Servers'][$i]['control_ssl_ca'] = '../server-ca.pem';
```

See also

$cfg['Servers'][$i]['ssl'], *$cfg['Servers'][$i]['ssl_key']*, *$cfg['Servers'][$i]['ssl_cert']*, *$cfg['Servers'][$i]['ssl_ca']*, *$cfg['Servers'][$i]['ssl_ca_path']*, *$cfg['Servers'][$i]['ssl_ciphers']*, *$cfg['Servers'][$i]['ssl_verify']*

$cfg['Servers'][$i]['auth_type']

Type
string

Default value
`'cookie'`

Whether config or cookie or *HTTP* or signon authentication should be used for this server.

- 'config' authentication (`$auth_type = 'config'`) is the plain old way: username and password are stored in `config.inc.php`.
- 'cookie' authentication mode (`$auth_type = 'cookie'`) allows you to log in as any valid MySQL user with the help of cookies.
- 'http' authentication allows you to log in as any valid MySQL user via HTTP-Auth.
- 'signon' authentication mode (`$auth_type = 'signon'`) allows you to log in from prepared PHP session data or using supplied PHP script.

See also

Using authentication modes

$cfg['Servers'][$i]['auth_http_realm']

Type
string

Default value
`''`

When using `'http'` for *$cfg['Servers'][$i]['auth_type']*, this field allows to define a custom *HTTP* Basic Auth Realm which will be displayed to the user. If not explicitly specified in your configuration, a string combined of "phpMyAdmin " and either *$cfg['Servers'][$i]['verbose']* or *$cfg['Servers'][$i]['host']* will be used.

`$cfg['Servers'][$i]['auth_swekey_config']`

Type
string

Default value
`''`

Added in version 3.0.0.0: This setting was named `$cfg['Servers'][$i]['auth_feebee_config']` and was renamed before the *3.0.0.0* release.

Deprecated since version 4.6.4: This setting was removed because their servers are no longer working and it was not working correctly.

Deprecated since version 4.0.10.17: This setting was removed in a maintenance release because their servers are no longer working and it was not working correctly.

The name of the file containing swekey ids and login names for hardware authentication. Leave empty to deactivate this feature.

`$cfg['Servers'][$i]['user']`

Type
string

Default value
`'root'`

`$cfg['Servers'][$i]['password']`

Type
string

Default value
`''`

When using *`$cfg['Servers'][$i]['auth_type']`* set to `'config'`, this is the user/password-pair which phpMyAdmin will use to connect to the MySQL server. This user/password pair is not needed when *HTTP* or cookie authentication is used and should be empty.

`$cfg['Servers'][$i]['nopassword']`

Type
boolean

Default value
false

Deprecated since version 4.7.0: This setting was removed as it can produce unexpected results.

Allow attempt to log in without password when a login with password fails. This can be used together with http authentication, when authentication is done some other way and phpMyAdmin gets user name from auth and uses empty password for connecting to MySQL. Password login is still tried first, but as fallback, no password method is tried.

> **Note**
>
> It is possible to allow logging in with no password with the *`$cfg['Servers'][$i]['AllowNoPassword']`* directive.

$cfg['Servers'][$i]['only_db']

Type
string or array

Default value
''

If set to a (an array of) database name(s), only this (these) database(s) will be shown to the user. Since phpMyAdmin 2.2.1, this/these database(s) name(s) may contain MySQL wildcards characters ("_" and "%"): if you want to use literal instances of these characters, escape them (I.E. use `'my\_db'` and not `'my_db'`).

This setting is an efficient way to lower the server load since the latter does not need to send MySQL requests to build the available database list. But **it does not replace the privileges rules of the MySQL database server**. If set, it just means only these databases will be displayed but **not that all other databases can't be used.**

An example of using more that one database:

```
$cfg['Servers'][$i]['only_db'] = ['db1', 'db2'];
```

Changed in version 4.0.0: Previous versions permitted to specify the display order of the database names via this directive.

$cfg['Servers'][$i]['hide_db']

Type
string

Default value
''

Regular expression for hiding some databases from unprivileged users. This only hides them from listing, but a user is still able to access them (using, for example, the SQL query area). To limit access, use the MySQL privilege system. For example, to hide all databases starting with the letter "a", use

```
$cfg['Servers'][$i]['hide_db'] = '^a';
```

and to hide both "db1" and "db2" use

```
$cfg['Servers'][$i]['hide_db'] = '^(db1|db2)$';
```

More information on regular expressions can be found in the PCRE pattern syntax portion of the PHP reference manual.

$cfg['Servers'][$i]['verbose']

Type
string

Default value
''

Only useful when using phpMyAdmin with multiple server entries. If set, this string will be displayed instead of the hostname in the pull-down menu on the main page. This can be useful if you want to show only certain databases on your system, for example. For HTTP auth, all non-US-ASCII characters will be stripped.

$cfg['Servers'][$i]['extension']

Type
string

Default value
'mysqli'

Deprecated since version 4.2.0: This setting was removed. The `mysql` extension will only be used when the `mysqli` extension is not available. As of 5.0.0, only the `mysqli` extension can be used.

The PHP MySQL extension to use (`mysql` or `mysqli`).

It is recommended to use `mysqli` in all installations.

`$cfg['Servers'][$i]['pmadb']`

Type
string

Default value
''

The name of the database containing the phpMyAdmin configuration storage.

See the *phpMyAdmin configuration storage* section in this document to see the benefits of this feature, and for a quick way of creating this database and the needed tables.

If you are the only user of this phpMyAdmin installation, you can use your current database to store those special tables; in this case, just put your current database name in *$cfg['Servers'][$i]['pmadb']*. For a multi-user installation, set this parameter to the name of your central database containing the phpMyAdmin configuration storage.

`$cfg['Servers'][$i]['bookmarktable']`

Type
string or false

Default value
''

Added in version 2.2.0.

Since release 2.2.0 phpMyAdmin allows users to bookmark queries. This can be useful for queries you often run. To allow the usage of this functionality:

- set up *$cfg['Servers'][$i]['pmadb']* and the phpMyAdmin configuration storage
- enter the table name in *$cfg['Servers'][$i]['bookmarktable']*

This feature can be disabled by setting the configuration to `false`.

`$cfg['Servers'][$i]['relation']`

Type
string or false

Default value
''

Added in version 2.2.4.

Since release 2.2.4 you can describe, in a special 'relation' table, which column is a key in another table (a foreign key). phpMyAdmin currently uses this to:

- make clickable, when you browse the master table, the data values that point to the foreign table;
- display in an optional tool-tip the "display column" when browsing the master table, if you move the mouse to a column containing a foreign key (use also the `table_info` table); (see *6.7 How can I use the "display column" feature?*)

- in edit/insert mode, display a drop-down list of possible foreign keys (key value and "display column" are shown) (see *6.21 In edit/insert mode, how can I see a list of possible values for a column, based on some foreign table?*)
- display links on the table properties page, to check referential integrity (display missing foreign keys) for each described key;
- in query-by-example, create automatic joins (see *6.6 How can I use the relation table in Query-by-example?*)
- enable you to get a *PDF* schema of your database (also uses the `table_coords` table).

The keys can be numeric or character.

To allow the usage of this functionality:

- set up *$cfg['Servers'][$i]['pmadb']* and the phpMyAdmin configuration storage
- put the relation table name in *$cfg['Servers'][$i]['relation']*
- now as normal user open phpMyAdmin and for each one of your tables where you want to use this feature, click *Structure/Relation view/* and choose foreign columns.

This feature can be disabled by setting the configuration to `false`.

Note

In the current version, `master_db` must be the same as `foreign_db`. Those columns have been put in future development of the cross-db relations.

`$cfg['Servers'][$i]['table_info']`

Type
string or false

Default value
`''`

Added in version 2.3.0.

Since release 2.3.0 you can describe, in a special `table_info` table, which column is to be displayed as a tool-tip when moving the cursor over the corresponding key. This configuration variable will hold the name of this special table. To allow the usage of this functionality:

- set up *$cfg['Servers'][$i]['pmadb']* and the phpMyAdmin configuration storage
- put the table name in *$cfg['Servers'][$i]['table_info']* (e.g. `pma__table_info`)
- then for each table where you want to use this feature, click "Structure/Relation view/Choose column to display" to choose the column.

This feature can be disabled by setting the configuration to `false`.

See also

6.7 How can I use the "display column" feature?

`$cfg['Servers'][$i]['table_coords']`

Type
string or false

Default value
''

The designer feature can save your page layout; by pressing the "Save page" or "Save page as" button in the expanding designer menu, you can customize the layout and have it loaded the next time you use the designer. That layout is stored in this table. Furthermore, this table is also required for using the PDF relation export feature, see *$cfg['Servers'][$i]['pdf_pages']* for additional details.

$cfg['Servers'][$i]['pdf_pages']

Type
string or false

Default value
''

Added in version 2.3.0.

Since release 2.3.0 you can have phpMyAdmin create *PDF* pages showing the relations between your tables. Further, the designer interface permits visually managing the relations. To do this it needs two tables "`pdf_pages`" (storing information about the available *PDF* pages) and "`table_coords`" (storing coordinates where each table will be placed on a *PDF* schema output). You must be using the "relation" feature.

To allow the usage of this functionality:

- set up *$cfg['Servers'][$i]['pmadb']* and the phpMyAdmin configuration storage
- put the correct table names in *$cfg['Servers'][$i]['table_coords']* and *$cfg['Servers'][$i]['pdf_pages']*

This feature can be disabled by setting either of the configurations to `false`.

See also

6.8 How can I produce a PDF schema of my database?.

$cfg['Servers'][$i]['designer_coords']

Type
string

Default value
''

Added in version 2.10.0: Since release 2.10.0 a Designer interface is available; it permits to visually manage the relations.

Deprecated since version 4.3.0: This setting was removed and the Designer table positioning data is now stored into *$cfg['Servers'][$i]['table_coords']*.

Note

You can now delete the table *pma__designer_coords* from your phpMyAdmin configuration storage database and remove *$cfg['Servers'][$i]['designer_coords']* from your configuration file.

$cfg['Servers'][$i]['column_info']

Type
string or false

Default value
''

Added in version 2.3.0.

This part requires a content update! Since release 2.3.0 you can store comments to describe each column for each table. These will then be shown on the "printview".

Starting with release 2.5.0, comments are consequently used on the table property pages and table browse view, showing up as tool-tips above the column name (properties page) or embedded within the header of table in browse view. They can also be shown in a table dump. Please see the relevant configuration directives later on.

Also new in release 2.5.0 is a MIME- transformation system which is also based on the following table structure. See *Transformations* for further information. To use the MIME- transformation system, your `column_info` table has to have the three new columns `'mimetype'`, `'transformation'`, `'transformation_options'`.

Starting with release 4.3.0, a new input-oriented transformation system has been introduced. Also, backward compatibility code used in the old transformations system was removed. As a result, an update to `column_info` table is necessary for previous transformations and the new input-oriented transformation system to work. phpMyAdmin will upgrade it automatically for you by analyzing your current `column_info` table structure. However, if something goes wrong with the auto-upgrade then you can use the SQL script found in `./sql/upgrade_column_info_4_3_0+.sql` to upgrade it manually.

To allow the usage of this functionality:

- set up *$cfg['Servers'][$i]['pmadb']* and the phpMyAdmin configuration storage
- put the table name in *$cfg['Servers'][$i]['column_info']* (e.g. `pma__column_info`)
- to update your PRE-2.5.0 `column_comments` table use this: and remember that the Variable in `config.inc.php` has been renamed from `$cfg['Servers'][$i]['column_comments']` to *$cfg['Servers'][$i]['column_info']*

```
ALTER TABLE `pma__column_comments`
ADD `mimetype` VARCHAR(255) NOT NULL,
ADD `transformation` VARCHAR(255) NOT NULL,
ADD `transformation_options` VARCHAR(255) NOT NULL;
```

- to update your PRE-4.3.0 `column_info` table manually use this `./sql/upgrade_column_info_4_3_0+.sql` SQL script.

This feature can be disabled by setting the configuration to `false`.

Note

For auto-upgrade functionality to work, your *$cfg['Servers'][$i]['controluser']* must have ALTER privilege on `phpmyadmin` database. See the MySQL documentation for GRANT on how to `GRANT` privileges to a user.

`$cfg['Servers'][$i]['history']`

Type
string or false

Default value
''

Added in version 2.5.0.

Since release 2.5.0 you can store your *SQL* history, which means all queries you entered manually into the phpMyAdmin interface. If you don't want to use a table-based history, you can use the JavaScript-based history.

Using that, all your history items are deleted when closing the window. Using *$cfg['QueryHistoryMax']* you can specify an amount of history items you want to have on hold. On every login, this list gets cut to the maximum amount.

The query history is only available if JavaScript is enabled in your browser.

To allow the usage of this functionality:

- set up *$cfg['Servers'][$i]['pmadb']* and the phpMyAdmin configuration storage
- put the table name in *$cfg['Servers'][$i]['history']* (e.g. `pma__history`)

This feature can be disabled by setting the configuration to `false`.

$cfg['Servers'][$i]['recent']

Type
string or false

Default value
`''`

Added in version 3.5.0.

Since release 3.5.0 you can show recently used tables in the navigation panel. It helps you to jump across table directly, without the need to select the database, and then select the table. Using *$cfg['NumRecentTables']* you can configure the maximum number of recent tables shown. When you select a table from the list, it will jump to the page specified in *$cfg['NavigationTreeDefaultTabTable']*.

Without configuring the storage, you can still access the recently used tables, but it will disappear after you logout.

To allow the usage of this functionality persistently:

- set up *$cfg['Servers'][$i]['pmadb']* and the phpMyAdmin configuration storage
- put the table name in *$cfg['Servers'][$i]['recent']* (e.g. `pma__recent`)

This feature can be disabled by setting the configuration to `false`.

$cfg['Servers'][$i]['favorite']

Type
string or false

Default value
`''`

Added in version 4.2.0.

Since release 4.2.0 you can show a list of selected tables in the navigation panel. It helps you to jump to the table directly, without the need to select the database, and then select the table. When you select a table from the list, it will jump to the page specified in *$cfg['NavigationTreeDefaultTabTable']*.

You can add tables to this list or remove tables from it in database structure page by clicking on the star icons next to table names. Using *$cfg['NumFavoriteTables']* you can configure the maximum number of favorite tables shown.

Without configuring the storage, you can still access the favorite tables, but it will disappear after you logout.

To allow the usage of this functionality persistently:

- set up *$cfg['Servers'][$i]['pmadb']* and the phpMyAdmin configuration storage

- put the table name in *$cfg['Servers'][$i]['favorite']* (e.g. pma__favorite)

This feature can be disabled by setting the configuration to false.

$cfg['Servers'][$i]['table_uiprefs']

Type
string or false

Default value
''

Added in version 3.5.0.

Since release 3.5.0 phpMyAdmin can be configured to remember several things (sorted column *$cfg['RememberSorting']*, column order, and column visibility from a database table) for browsing tables. Without configuring the storage, these features still can be used, but the values will disappear after you logout.

To allow the usage of these functionality persistently:

- set up *$cfg['Servers'][$i]['pmadb']* and the phpMyAdmin configuration storage
- put the table name in *$cfg['Servers'][$i]['table_uiprefs']* (e.g. pma__table_uiprefs)

This feature can be disabled by setting the configuration to false.

$cfg['Servers'][$i]['users']

Type
string or false

Default value
''

The table used by phpMyAdmin to store user name information for associating with user groups. See the next entry on *$cfg['Servers'][$i]['usergroups']* for more details and the suggested settings.

$cfg['Servers'][$i]['usergroups']

Type
string or false

Default value
''

Added in version 4.1.0.

Since release 4.1.0 you can create different user groups with menu items attached to them. Users can be assigned to these groups and the logged in user would only see menu items configured to the usergroup they are assigned to. To do this it needs two tables "usergroups" (storing allowed menu items for each user group) and "users" (storing users and their assignments to user groups).

To allow the usage of this functionality:

- set up *$cfg['Servers'][$i]['pmadb']* and the phpMyAdmin configuration storage
- put the correct table names in *$cfg['Servers'][$i]['users']* (e.g. pma__users) and *$cfg['Servers'][$i]['usergroups']* (e.g. pma__usergroups)

This feature can be disabled by setting either of the configurations to false.

> **See also**
>
> *Configurable menus and user groups*

$cfg['Servers'][$i]['navigationhiding']

Type
string or false

Default value
''

Added in version 4.1.0.

Since release 4.1.0 you can hide/show items in the navigation tree.

To allow the usage of this functionality:

- set up *$cfg['Servers'][$i]['pmadb']* and the phpMyAdmin configuration storage
- put the table name in *$cfg['Servers'][$i]['navigationhiding']* (e.g. `pma__navigationhiding`)

This feature can be disabled by setting the configuration to `false`.

$cfg['Servers'][$i]['central_columns']

Type
string or false

Default value
''

Added in version 4.3.0.

Since release 4.3.0 you can have a central list of columns per database. You can add/remove columns to the list as per your requirement. These columns in the central list will be available to use while you create a new column for a table or create a table itself. You can select a column from central list while creating a new column, it will save you from writing the same column definition over again or from writing different names for similar column.

To allow the usage of this functionality:

- set up *$cfg['Servers'][$i]['pmadb']* and the phpMyAdmin configuration storage
- put the table name in *$cfg['Servers'][$i]['central_columns']* (e.g. `pma__central_columns`)

This feature can be disabled by setting the configuration to `false`.

$cfg['Servers'][$i]['designer_settings']

Type
string or false

Default value
''

Added in version 4.5.0.

Since release 4.5.0 your designer settings can be remembered. Your choice regarding 'Angular/Direct Links', 'Snap to Grid', 'Toggle Relation Lines', 'Small/Big All', 'Move Menu' and 'Pin Text' can be remembered persistently.

To allow the usage of this functionality:

- set up *$cfg['Servers'][$i]['pmadb']* and the phpMyAdmin configuration storage

- put the table name in *$cfg['Servers'][$i]['designer_settings']* (e.g. pma__designer_settings)

This feature can be disabled by setting the configuration to false.

$cfg['Servers'][$i]['savedsearches']

Type
string or false

Default value
''

Added in version 4.2.0.

Since release 4.2.0 you can save and load query-by-example searches from the Database > Query panel.

To allow the usage of this functionality:

- set up *$cfg['Servers'][$i]['pmadb']* and the phpMyAdmin configuration storage
- put the table name in *$cfg['Servers'][$i]['savedsearches']* (e.g. pma__savedsearches)

This feature can be disabled by setting the configuration to false.

$cfg['Servers'][$i]['export_templates']

Type
string or false

Default value
''

Added in version 4.5.0.

Since release 4.5.0 you can save and load export templates.

To allow the usage of this functionality:

- set up *$cfg['Servers'][$i]['pmadb']* and the phpMyAdmin configuration storage
- put the table name in *$cfg['Servers'][$i]['export_templates']* (e.g. pma__export_templates)

This feature can be disabled by setting the configuration to false.

$cfg['Servers'][$i]['tracking']

Type
string or false

Default value
''

Added in version 3.3.x.

Since release 3.3.x a tracking mechanism is available. It helps you to track every *SQL* command which is executed by phpMyAdmin. The mechanism supports logging of data manipulation and data definition statements. After enabling it you can create versions of tables.

The creation of a version has two effects:

- phpMyAdmin saves a snapshot of the table, including structure and indexes.
- phpMyAdmin logs all commands which change the structure and/or data of the table and links these commands with the version number.

Of course you can view the tracked changes. On the *Tracking* page a complete report is available for every version. For the report you can use filters, for example you can get a list of statements within a date range. When you want to filter usernames you can enter * for all names or you enter a list of names separated by ‘,’. In addition you can export the (filtered) report to a file or to a temporary database.

To allow the usage of this functionality:

- set up *$cfg['Servers'][$i]['pmadb']* and the phpMyAdmin configuration storage
- put the table name in *$cfg['Servers'][$i]['tracking']* (e.g. `pma__tracking`)

This feature can be disabled by setting the configuration to `false`.

$cfg['Servers'][$i]['tracking_version_auto_create']

Type
boolean

Default value
false

Whether the tracking mechanism creates versions for tables and views automatically.

If this is set to true and you create a table or view with

- CREATE TABLE ...
- CREATE VIEW ...

and no version exists for it, the mechanism will create a version for you automatically.

$cfg['Servers'][$i]['tracking_default_statements']

Type
string

Default value
```
'CREATE TABLE,ALTER TABLE,DROP TABLE,RENAME TABLE,CREATE INDEX,DROP
INDEX,INSERT,UPDATE,DELETE,TRUNCATE,REPLACE,CREATE VIEW,ALTER VIEW,DROP
VIEW,CREATE DATABASE,ALTER DATABASE,DROP DATABASE'
```

Defines the list of statements the auto-creation uses for new versions.

$cfg['Servers'][$i]['tracking_add_drop_view']

Type
boolean

Default value
true

Whether a *DROP VIEW IF EXISTS* statement will be added as first line to the log when creating a view.

$cfg['Servers'][$i]['tracking_add_drop_table']

Type
boolean

Default value
true

Whether a *DROP TABLE IF EXISTS* statement will be added as first line to the log when creating a table.

$cfg['Servers'][$i]['tracking_add_drop_database']

Type
boolean

Default value
true

Whether a *DROP DATABASE IF EXISTS* statement will be added as first line to the log when creating a database.

$cfg['Servers'][$i]['userconfig']

Type
string or false

Default value
''

Added in version 3.4.x.

Since release 3.4.x phpMyAdmin allows users to set most preferences by themselves and store them in the database.

If you don't allow for storing preferences in *$cfg['Servers'][$i]['pmadb']*, users can still personalize phpMyAdmin, but settings will be saved in browser's local storage, or, it is is unavailable, until the end of session.

To allow the usage of this functionality:

- set up *$cfg['Servers'][$i]['pmadb']* and the phpMyAdmin configuration storage
- put the table name in *$cfg['Servers'][$i]['userconfig']*

This feature can be disabled by setting the configuration to `false`.

$cfg['Servers'][$i]['MaxTableUiprefs']

Type
integer

Default value
100

Maximum number of rows saved in *$cfg['Servers'][$i]['table_uiprefs']* table.

When tables are dropped or renamed, *$cfg['Servers'][$i]['table_uiprefs']* may contain invalid data (referring to tables which no longer exist). We only keep this number of newest rows in *$cfg['Servers'][$i]['table_uiprefs']* and automatically delete older rows.

$cfg['Servers'][$i]['SessionTimeZone']

Type
string

Default value
''

Sets the time zone used by phpMyAdmin. Leave blank to use the time zone of your database server. Possible values are explained at https://dev.mysql.com/doc/refman/8.0/en/time-zone-support.html

This is useful when your database server uses a time zone which is different from the time zone you want to use in phpMyAdmin.

`$cfg['Servers'][$i]['AllowRoot']`

Type
boolean

Default value
true

Whether to allow root access. This is just a shortcut for the *$cfg['Servers'][$i]['AllowDeny']['rules']* below.

`$cfg['Servers'][$i]['AllowNoPassword']`

Type
boolean

Default value
false

Whether to allow logins without a password. The default value of `false` for this parameter prevents unintended access to a MySQL server with was left with an empty password for root or on which an anonymous (blank) user is defined.

`$cfg['Servers'][$i]['AllowDeny']['order']`

Type
string

Default value
`''`

If your rule order is empty, then *IP* authorization is disabled.

If your rule order is set to `'deny,allow'` then the system applies all deny rules followed by allow rules. Access is allowed by default. Any client which does not match a Deny command or does match an Allow command will be allowed access to the server.

If your rule order is set to `'allow,deny'` then the system applies all allow rules followed by deny rules. Access is denied by default. Any client which does not match an Allow directive or does match a Deny directive will be denied access to the server.

If your rule order is set to `'explicit'`, authorization is performed in a similar fashion to rule order 'deny,allow', with the added restriction that your host/username combination **must** be listed in the *allow* rules, and not listed in the *deny* rules. This is the **most** secure means of using Allow/Deny rules, and was available in Apache by specifying allow and deny rules without setting any order.

Please also see *$cfg['TrustedProxies']* for detecting IP address behind proxies.

`$cfg['Servers'][$i]['AllowDeny']['rules']`

Type
array of strings

Default value
`[]`

The general format for the rules is as such:

```
<'allow' | 'deny'> <username> [from] <ipmask>
```

If you wish to match all users, it is possible to use a `'%'` as a wildcard in the *username* field.

There are a few shortcuts you can use in the *ipmask* field as well (please note that those containing SERVER_ADDRESS might not be available on all webservers):

```
'all' -> 0.0.0.0/0
'localhost' -> 127.0.0.1/8
'localnetA' -> SERVER_ADDRESS/8
'localnetB' -> SERVER_ADDRESS/16
'localnetC' -> SERVER_ADDRESS/24
```

Having an empty rule list is equivalent to either using `'allow % from all'` if your rule order is set to `'deny,allow'` or `'deny % from all'` if your rule order is set to `'allow,deny'` or `'explicit'`.

For the *IP Address* matching system, the following work:

- `xxx.xxx.xxx.xxx` (an exact *IP Address*)
- `xxx.xxx.xxx.[yyy-zzz]` (an *IP Address* range)
- `xxx.xxx.xxx.xxx/nn` (CIDR, Classless Inter-Domain Routing type *IP* addresses)

But the following does not work:

- `xxx.xxx.xxx.xx[yyy-zzz]` (partial *IP* address range)

For *IPv6* addresses, the following work:

- `xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx` (an exact *IPv6* address)
- `xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:[yyyy-zzzz]` (an *IPv6* address range)
- `xxxx:xxxx:xxxx:xxxx/nn` (CIDR, Classless Inter-Domain Routing type *IPv6* addresses)

But the following does not work:

- `xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xxxx:xx[yyy-zzz]` (partial *IPv6* address range)

Examples:

```
$cfg['Servers'][$i]['AllowDeny']['order'] = 'allow,deny';
$cfg['Servers'][$i]['AllowDeny']['rules'] = ['allow bob from all'];
// Allow only 'bob' to connect from any host

$cfg['Servers'][$i]['AllowDeny']['order'] = 'allow,deny';
$cfg['Servers'][$i]['AllowDeny']['rules'] = ['allow mary from 192.168.100.[50-100]
↪'];
// Allow only 'mary' to connect from host 192.168.100.50 through 192.168.100.100

$cfg['Servers'][$i]['AllowDeny']['order'] = 'allow,deny';
$cfg['Servers'][$i]['AllowDeny']['rules'] = ['allow % from 192.168.[5-6].10'];
// Allow any user to connect from host 192.168.5.10 or 192.168.6.10

$cfg['Servers'][$i]['AllowDeny']['order'] = 'allow,deny';
$cfg['Servers'][$i]['AllowDeny']['rules'] = ['allow root from 192.168.5.50','allow
↪% from 192.168.6.10'];
// Allow any user to connect from 192.168.6.10, and additionally allow root to␣
↪connect from 192.168.5.50
```

`$cfg['Servers'][$i]['DisableIS']`

Type
boolean

Default value
false

Disable using `INFORMATION_SCHEMA` to retrieve information (use `SHOW` commands instead), because of speed issues when many databases are present.

> **Note**
>
> Enabling this option might give you a big performance boost on older MySQL servers.

`$cfg['Servers'][$i]['SignonScript']`

Type
string

Default value
`''`

Added in version 3.5.0.

Name of PHP script to be sourced and executed to obtain login credentials. This is alternative approach to session based single signon. The script has to provide a function called `get_login_credentials` which returns list of username and password, accepting single parameter of existing username (can be empty). See `examples/signon-script.php` for an example:

```
<?php
/**
 * Single signon for phpMyAdmin
 *
 * This is just example how to use script based single signon with
 * phpMyAdmin, it is not intended to be perfect code and look, only
 * shows how you can integrate this functionality in your application.
 */

declare(strict_types=1);

// phpcs:disable Squiz.Functions.GlobalFunction

/**
 * This function returns username and password.
 *
 * It can optionally use configured username as parameter.
 *
 * @param string $user User name
 *
 * @return array
 */
function get_login_credentials($user)
{
    /* Optionally we can use passed username */
    if (! empty($user)) {
        return [
            $user,
            'password',
        ];
```

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(continued from previous page)

```
    }

    /* Here we would retrieve the credentials */
    return [
        'root',
        '',
    ];
}
```

See also

Signon authentication mode

$cfg['Servers'][$i]['SignonSession']

Type
string

Default value
''

Name of session which will be used for signon authentication method. You should use something different than `phpMyAdmin`, because this is session which phpMyAdmin uses internally. Takes effect only if *$cfg['Servers'][$i]['SignonScript']* is not configured.

See also

Signon authentication mode

$cfg['Servers'][$i]['SignonCookieParams']

Type
array

Default value
`[]`

Added in version 4.7.0.

An associative array of session cookie parameters of other authentication system. It is not needed if the other system doesn't use `session_set_cookie_params()`. Keys should include `'lifetime'`, `'path'`, `'domain'`, `'secure'` or `'httponly'`. Valid values are mentioned in session_get_cookie_params, they should be set to same values as the other application uses. Takes effect only if *$cfg['Servers'][$i]['SignonScript']* is not configured.

See also

Signon authentication mode

$cfg['Servers'][$i]['SignonURL']

Type
string

Default value
''

URL where user will be redirected to log in for signon authentication method. Should be absolute including protocol.

See also

Signon authentication mode

`$cfg['Servers'][$i]['LogoutURL']`

Type
string

Default value
''

URL where user will be redirected after logout (doesn't affect config authentication method). Should be absolute including protocol.

`$cfg['Servers'][$i]['hide_connection_errors']`

Type
boolean

Default value
false

Added in version 4.9.8.

Whether to show or hide detailed MySQL/MariaDB connection errors on the login page.

Note

This error message can contain the target database server hostname or IP address, which may reveal information about your network to an attacker.

4.3 Generic settings

`$cfg['DisableShortcutKeys']`

Type
boolean

Default value
false

You can disable phpMyAdmin shortcut keys by setting *$cfg['DisableShortcutKeys']* to true.

`$cfg['ServerDefault']`

Type
integer

Default value
1

If you have more than one server configured, you can set *$cfg['ServerDefault']* to any one of them to auto-connect to that server when phpMyAdmin is started, or set it to 0 to be given a list of servers without logging in.

If you have only one server configured, *$cfg['ServerDefault']* MUST be set to that server.

$cfg['VersionCheck']

Type
boolean

Default value
true

Enables check for latest versions using JavaScript on the main phpMyAdmin page or by directly accessing `index.php?route=/version-check`.

Note

This setting can be adjusted by your vendor.

$cfg['ProxyUrl']

Type
string

Default value
''

The url of the proxy to be used when phpmyadmin needs to access the outside internet such as when retrieving the latest version info or submitting error reports. You need this if the server where phpMyAdmin is installed does not have direct access to the internet. The format is: "hostname:portnumber"

$cfg['ProxyUser']

Type
string

Default value
''

The username for authenticating with the proxy. By default, no authentication is performed. If a username is supplied, Basic Authentication will be performed. No other types of authentication are currently supported.

$cfg['ProxyPass']

Type
string

Default value
''

The password for authenticating with the proxy.

$cfg['MaxDbList']

Type
integer

Default value
100

The maximum number of database names to be displayed in the main panel's database list.

`$cfg['MaxTableList']`

Type
integer

Default value
250

The maximum number of table names to be displayed in the main panel's list (except on the Export page).

`$cfg['ShowHint']`

Type
boolean

Default value
true

Whether or not to show hints (for example, hints when hovering over table headers).

`$cfg['MaxCharactersInDisplayedSQL']`

Type
integer

Default value
1000

The maximum number of characters when a *SQL* query is displayed. The default limit of 1000 should be correct to avoid the display of tons of hexadecimal codes that represent BLOBs, but some users have real *SQL* queries that are longer than 1000 characters. Also, if a query's length exceeds this limit, this query is not saved in the history.

`$cfg['PersistentConnections']`

Type
boolean

Default value
false

Whether persistent connections should be used or not.

See also

mysqli documentation for persistent connections

`$cfg['ForceSSL']`

Type
boolean

Default value
false

Deprecated since version 4.6.0: This setting is no longer available since phpMyAdmin 4.6.0. Please adjust your webserver instead.

Whether to force using https while accessing phpMyAdmin. In a reverse proxy setup, setting this to `true` is not supported.

> **Note**
>
> In some setups (like separate SSL proxy or load balancer) you might have to set *$cfg['PmaAbsoluteUri']* for correct redirection.

$cfg['MysqlSslWarningSafeHosts']

Type
array

Default value
`['127.0.0.1', 'localhost']`

This search is case-sensitive and will match the exact string only. If your setup does not use SSL but is safe because you are using a local connection or private network, you can add your hostname or *IP* to the list. You can also remove the default entries to only include yours.

This check uses the value of *$cfg['Servers'][$i]['host']*.

Added in version 5.1.0.

Example configuration

```
$cfg['MysqlSslWarningSafeHosts'] = ['127.0.0.1', 'localhost', 'mariadb.local'];
```

$cfg['ExecTimeLimit']

Type
integer [number of seconds]

Default value
300

Set the number of seconds a script is allowed to run. If seconds is set to zero, no time limit is imposed. This setting is used while importing/exporting dump files but has no effect when PHP is running in safe mode.

$cfg['SessionSavePath']

Type
string

Default value
`''`

Path for storing session data (session_save_path PHP parameter).

> **Warning**
>
> This folder should not be publicly accessible through the webserver, otherwise you risk leaking private data from your session.

$cfg['MemoryLimit']

Type
string [number of bytes]

Default value
`'-1'`

Set the number of bytes a script is allowed to allocate. If set to `'-1'`, no limit is imposed. If set to `'0'`, no change of the memory limit is attempted and the `php.ini` `memory_limit` is used.

This setting is used while importing/exporting dump files so you definitely don't want to put here a too low value. It has no effect when PHP is running in safe mode.

You can also use any string as in `php.ini`, eg. `'16M'`. Ensure you don't omit the suffix (16 means 16 bytes!)

`$cfg['SkipLockedTables']`

Type
boolean

Default value
false

Mark used tables and make it possible to show databases with locked tables (since MySQL 3.23.30).

`$cfg['ShowSQL']`

Type
boolean

Default value
true

Defines whether *SQL* queries generated by phpMyAdmin should be displayed or not.

`$cfg['RetainQueryBox']`

Type
boolean

Default value
false

Defines whether the *SQL* query box should be kept displayed after its submission.

`$cfg['CodemirrorEnable']`

Type
boolean

Default value
true

Defines whether to use a Javascript code editor for SQL query boxes. CodeMirror provides syntax highlighting and line numbers. However, middle-clicking for pasting the clipboard contents in some Linux distributions (such as Ubuntu) is not supported by all browsers.

`$cfg['LintEnable']`

Type
boolean

Default value
true

Added in version 4.5.0.

Defines whether to use the parser to find any errors in the query before executing.

$cfg['DefaultForeignKeyChecks']

Type
string

Default value
`'default'`

Default value of the checkbox for foreign key checks, to disable/enable foreign key checks for certain queries. The possible values are `'default'`, `'enable'` or `'disable'`. If set to `'default'`, the value of the MySQL variable `FOREIGN_KEY_CHECKS` is used.

$cfg['AllowUserDropDatabase']

Type
boolean

Default value
false

> **Warning**
>
> This is not a security measure as there will be always ways to circumvent this. If you want to prohibit users from dropping databases, revoke their corresponding DROP privilege.

Defines whether normal users (non-administrator) are allowed to delete their own database or not. If set as false, the link *Drop Database* will not be shown, and even a `DROP DATABASE mydatabase` will be rejected. Quite practical for *ISP* 's with many customers.

This limitation of *SQL* queries is not as strict as when using MySQL privileges. This is due to nature of *SQL* queries which might be quite complicated. So this choice should be viewed as help to avoid accidental dropping rather than strict privilege limitation.

$cfg['Confirm']

Type
boolean

Default value
true

Whether a warning ("Are your really sure…") should be displayed when you're about to lose data.

$cfg['UseDbSearch']

Type
boolean

Default value
true

Define whether the "search string inside database" is enabled or not.

$cfg['IgnoreMultiSubmitErrors']

Type
boolean

Default value
false

Define whether phpMyAdmin will continue executing a multi-query statement if one of the queries fails. Default is to abort execution.

`$cfg['enable_drag_drop_import']`

Type
boolean

Default value
true

Whether or not the drag and drop import feature is enabled. When enabled, a user can drag a file in to their browser and phpMyAdmin will attempt to import the file.

`$cfg['URLQueryEncryption']`

Type
boolean

Default value
false

Added in version 4.9.8.

Define whether phpMyAdmin will encrypt sensitive data (like database name and table name) from the URL query string. Default is to not encrypt the URL query string.

`$cfg['URLQueryEncryptionSecretKey']`

Type
string

Default value
''

Added in version 4.9.8.

A secret key used to encrypt/decrypt the URL query string. Should be 32 bytes long.

See also

2.10 How to generate a string of random bytes

`$cfg['maxRowPlotLimit']`

Type
integer

Default value
500

Maximum number of rows retrieved for zoom search.

4.4 Cookie authentication options

`$cfg['blowfish_secret']`

Type
string

Default value
''

The 'cookie' *$cfg['Servers'][$i]['auth_type']* uses the *Sodium* extension to encrypt the cookies (see *Cookie*). If you are using the 'cookie' *$cfg['Servers'][$i]['auth_type']*, enter here a generated string of random bytes to be used as an encryption key. It will be used internally by the *Sodium* extension: you won't be prompted for this encryption key.

Since a binary string is usually not printable, it can be converted into a hexadecimal representation (using a function like sodium_bin2hex) and then used in the configuration file. For example:

```
// The string is a hexadecimal representation of a 32-bytes long string of random␣
↪bytes.
$cfg['blowfish_secret'] = sodium_hex2bin(
↪'f16ce59f45714194371b48fe362072dc3b019da7861558cd4ad29e4d6fb13851');
```

Using a binary string is recommended. However, if all 32 bytes of the string are visible characters, then a function like sodium_bin2hex is not required. For example:

```
// A string of 32 characters.
$cfg['blowfish_secret'] = 'JOFw435365IScA&Q!cDugr!lSfuAz*OW';
```

Warning

The encryption key must be 32 bytes long. If it is longer than the length of bytes, only the first 32 bytes will be used, and if it is shorter, a new temporary key will be automatically generated for you. However, this temporary key will only last for the duration of the session.

Note

The configuration is called blowfish_secret for historical reasons as Blowfish algorithm was originally used to do the encryption.

Changed in version 3.1.0: Since version 3.1.0 phpMyAdmin can generate this on the fly, but it makes a bit weaker security as this generated secret is stored in session and furthermore it makes impossible to recall user name from cookie.

Changed in version 5.2.0: Since version 5.2.0, phpMyAdmin uses the sodium_crypto_secretbox and sodium_crypto_secretbox_open PHP functions to encrypt and decrypt cookies, respectively.

See also

2.10 How to generate a string of random bytes

$cfg['CookieSameSite']

Type
string

Default value
'Strict'

Added in version 5.1.0.

It sets SameSite attribute of the Set-Cookie *HTTP* response header. Valid values are:

- `Lax`
- `Strict`
- `None`

See also

rfc6265 bis

`$cfg['LoginCookieRecall']`

Type
boolean

Default value
true

Define whether the previous login should be recalled or not in cookie authentication mode.

This is automatically disabled if you do not have configured *`$cfg['blowfish_secret']`*.

`$cfg['LoginCookieValidity']`

Type
integer [number of seconds]

Default value
1440

Define how long a login cookie is valid. Please note that php configuration option session.gc_maxlifetime might limit session validity and if the session is lost, the login cookie is also invalidated. So it is a good idea to set `session.gc_maxlifetime` at least to the same value of *`$cfg['LoginCookieValidity']`*.

`$cfg['LoginCookieStore']`

Type
integer [number of seconds]

Default value
0

Define how long login cookie should be stored in browser. Default 0 means that it will be kept for existing session. This is recommended for not trusted environments.

`$cfg['LoginCookieDeleteAll']`

Type
boolean

Default value
true

If enabled (default), logout deletes cookies for all servers, otherwise only for current one. Setting this to false makes it easy to forget to log out from other server, when you are using more of them.

`$cfg['AllowArbitraryServer']`

Type
boolean

Default value
false

If enabled, allows you to log in to arbitrary servers using cookie authentication.

> **Note**
>
> Please use this carefully, as this may allow users access to MySQL servers behind the firewall where your *HTTP* server is placed. See also *$cfg['ArbitraryServerRegexp']*.

$cfg['ArbitraryServerRegexp']

Type
string

Default value
''

Restricts the MySQL servers to which the user can log in when *$cfg['AllowArbitraryServer']* is enabled by matching the *IP* or the hostname of the MySQL server to the given regular expression. The regular expression must be enclosed with a delimiter character.

It is recommended to include start and end symbols in the regular expression, so that you can avoid partial matches on the string.

Examples:

```
// Allow connection to three listed servers:
$cfg['ArbitraryServerRegexp'] = '/^(server|another|yetdifferent)$/';

// Allow connection to range of IP addresses:
$cfg['ArbitraryServerRegexp'] = '@^192\.168\.0\.[0-9]{1,}$@';

// Allow connection to server name ending with -mysql:
$cfg['ArbitraryServerRegexp'] = '@^[^:]\-mysql$@';
```

> **Note**
>
> The whole server name is matched, it can include port as well. Due to way MySQL is permissive in connection parameters, it is possible to use connection strings as `` `server:3306-mysql` ``. This can be used to bypass regular expression by the suffix, while connecting to another server.

$cfg['CaptchaMethod']

Type
string

Default value
`'invisible'`

Valid values are:

- `'invisible'` Use an invisible captcha checking method;
- `'checkbox'` Use a checkbox to confirm the user is not a robot.

Added in version 5.0.3.

$cfg['CaptchaApi']

Type
string

Default value
`'https://www.google.com/recaptcha/api.js'`

Added in version 5.1.0.

The URL for the reCaptcha v2 service's API, either Google's or a compatible one.

$cfg['CaptchaCsp']

Type
string

Default value
`'https://apis.google.com https://www.google.com/recaptcha/ https://www.gstatic.com/recaptcha/ https://ssl.gstatic.com/'`

Added in version 5.1.0.

The Content-Security-Policy snippet (URLs from which to allow embedded content) for the reCaptcha v2 service, either Google's or a compatible one.

$cfg['CaptchaRequestParam']

Type
string

Default value
`'g-recaptcha'`

Added in version 5.1.0.

The request parameter used for the reCaptcha v2 service.

$cfg['CaptchaResponseParam']

Type
string

Default value
`'g-recaptcha-response'`

Added in version 5.1.0.

The response parameter used for the reCaptcha v2 service.

$cfg['CaptchaLoginPublicKey']

Type
string

Default value
`''`

The public key for the reCaptcha service that can be obtained from the "Admin Console" on https://www.google.com/recaptcha/about/.

> **See also**
>
> <https://developers.google.com/recaptcha/docs/v3>

reCaptcha will be then used in *Cookie authentication mode*.

Added in version 4.1.0.

`$cfg['CaptchaLoginPrivateKey']`

Type
string

Default value
''

The private key for the reCaptcha service that can be obtained from the "Admin Console" on https://www.google.com/recaptcha/about/.

> **See also**
>
> <https://developers.google.com/recaptcha/docs/v3>

reCaptcha will be then used in *Cookie authentication mode*.

Added in version 4.1.0.

`$cfg['CaptchaSiteVerifyURL']`

Type
string

Default value
''

The URL for the reCaptcha service to do siteverify action.

reCaptcha will be then used in *Cookie authentication mode*.

Added in version 5.1.0.

4.5 Navigation panel setup

`$cfg['ShowDatabasesNavigationAsTree']`

Type
boolean

Default value
true

In the navigation panel, replaces the database tree with a selector

`$cfg['FirstLevelNavigationItems']`

Type
integer

Default value
100

The number of first level databases that can be displayed on each page of navigation tree.

`$cfg['MaxNavigationItems']`

Type
integer

Default value
50

The number of items (tables, columns, indexes) that can be displayed on each page of the navigation tree.

`$cfg['NavigationTreeEnableGrouping']`

Type
boolean

Default value
true

Defines whether to group the databases based on a common prefix in their name *$cfg['NavigationTreeDbSeparator']*.

`$cfg['NavigationTreeDbSeparator']`

Type
string

Default value
`'_'`

The string used to separate the parts of the database name when showing them in a tree.

`$cfg['NavigationTreeTableSeparator']`

Type
string or array

Default value
`'__'`

Defines a string to be used to nest table spaces. This means if you have tables like `first__second__third` this will be shown as a three-level hierarchy like: first > second > third. If set to false or empty, the feature is disabled. NOTE: You should not use this separator at the beginning or end of a table name or multiple times after another without any other characters in between.

`$cfg['NavigationTreeTableLevel']`

Type
integer

Default value
1

Defines how many sublevels should be displayed when splitting up tables by the above separator.

`$cfg['NumRecentTables']`

Type
integer

Default value
10

The maximum number of recently used tables shown in the navigation panel. Set this to 0 (zero) to disable the listing of recent tables.

`$cfg['NumFavoriteTables']`

Type
integer

Default value
10

The maximum number of favorite tables shown in the navigation panel. Set this to 0 (zero) to disable the listing of favorite tables.

`$cfg['ZeroConf']`

Type
boolean

Default value
true

Enables Zero Configuration mode in which the user will be offered a choice to create phpMyAdmin configuration storage in the current database or use the existing one, if already present.

This setting has no effect if the phpMyAdmin configuration storage database is properly created and the related configuration directives (such as *$cfg['Servers'][$i]['pmadb']* and so on) are configured.

`$cfg['NavigationLinkWithMainPanel']`

Type
boolean

Default value
true

Defines whether or not to link with main panel by highlighting the current database or table.

`$cfg['NavigationDisplayLogo']`

Type
boolean

Default value
true

Defines whether or not to display the phpMyAdmin logo at the top of the navigation panel.

`$cfg['NavigationLogoLink']`

Type
string

Default value
`'index.php'`

Enter the *URL* where the logo in the navigation panel will point to. For use especially with self made theme which changes this. For relative/internal URLs, you need to have leading `./` or trailing characters `?` such as `'./index.php?route=/server/sql?'`. For external URLs, you should include URL protocol schemes (`http` or `https`) with absolute URLs.

You may want to make the link open in a new browser tab, for that you need to use *$cfg['NavigationLogoLinkWindow']*

$cfg['NavigationLogoLinkWindow']

Type
string

Default value
'main'

Whether to open the linked page in the main window (main) or in a new one (new). Note: use new if you are linking to phpmyadmin.net.

To open the link in the main window you will need to add the value of *$cfg['NavigationLogoLink']* to *$cfg['CSPAllow']* because of the *Content Security Policy* header.

$cfg['NavigationTreeDisplayItemFilterMinimum']

Type
integer

Default value
30

Defines the minimum number of items (tables, views, routines and events) to display a JavaScript filter box above the list of items in the navigation tree.

To disable the filter completely some high number can be used (e.g. 9999)

$cfg['NavigationTreeDisplayDbFilterMinimum']

Type
integer

Default value
30

Defines the minimum number of databases to display a JavaScript filter box above the list of databases in the navigation tree.

To disable the filter completely some high number can be used (e.g. 9999)

$cfg['NavigationDisplayServers']

Type
boolean

Default value
true

Defines whether or not to display a server choice at the top of the navigation panel.

$cfg['DisplayServersList']

Type
boolean

Default value
false

Defines whether to display this server choice as links instead of in a drop-down.

`$cfg['NavigationTreeDefaultTabTable']`

Type
string

Default value
`'structure'`

Defines the tab displayed by default when clicking the small icon next to each table name in the navigation panel. The possible values are the localized equivalent of:

- `structure`
- `sql`
- `search`
- `insert`
- `browse`

`$cfg['NavigationTreeDefaultTabTable2']`

Type
string

Default value
null

Defines the tab displayed by default when clicking the second small icon next to each table name in the navigation panel. The possible values are the localized equivalent of:

- `(empty)`
- `structure`
- `sql`
- `search`
- `insert`
- `browse`

`$cfg['NavigationTreeEnableExpansion']`

Type
boolean

Default value
true

Whether to offer the possibility of tree expansion in the navigation panel.

`$cfg['NavigationTreeShowTables']`

Type
boolean

Default value
true

Whether to show tables under database in the navigation panel.

`$cfg['NavigationTreeShowViews']`

Type
boolean

Default value
true

Whether to show views under database in the navigation panel.

`$cfg['NavigationTreeShowFunctions']`

Type
boolean

Default value
true

Whether to show functions under database in the navigation panel.

`$cfg['NavigationTreeShowProcedures']`

Type
boolean

Default value
true

Whether to show procedures under database in the navigation panel.

`$cfg['NavigationTreeShowEvents']`

Type
boolean

Default value
true

Whether to show events under database in the navigation panel.

`$cfg['NavigationTreeAutoexpandSingleDb']`

Type
boolean

Default value
true

Whether to expand single database in the navigation tree automatically.

`$cfg['NavigationWidth']`

Type
integer

Default value
240

Navigation panel width, set to 0 to collapse it by default.

4.6 Main panel

$cfg['ShowStats']

Type
boolean

Default value
true

Defines whether or not to display space usage and statistics about databases and tables. Note that statistics requires at least MySQL 3.23.3 and that, at this date, MySQL doesn't return such information for Berkeley DB tables.

$cfg['ShowServerInfo']

Type
boolean

Default value
true

Defines whether to display detailed server information on main page. You can additionally hide more information by using *$cfg['Servers'][$i]['verbose']*.

$cfg['ShowPhpInfo']

Type
boolean

Default value
false

Defines whether to display the *PHP information* or not at the starting main (right) frame.

Please note that to block the usage of `phpinfo()` in scripts, you have to put this in your `php.ini`:

```
disable_functions = phpinfo()
```

Warning

Enabling phpinfo page will leak quite a lot of information about server setup. Is it not recommended to enable this on shared installations.

This might also make easier some remote attacks on your installations, so enable this only when needed.

$cfg['ShowChgPassword']

Type
boolean

Default value
true

Defines whether to display the *Change password* link or not at the starting main (right) frame. This setting does not check MySQL commands entered directly.

Please note that enabling the *Change password* link has no effect with config authentication mode: because of the hard coded password value in the configuration file, end users can't be allowed to change their passwords.

`$cfg['ShowCreateDb']`

Type
boolean

Default value
true

Defines whether to display the form for creating database or not at the starting main (right) frame. This setting does not check MySQL commands entered directly.

`$cfg['ShowGitRevision']`

Type
boolean

Default value
true

Defines whether to display information about the current Git revision (if applicable) on the main panel.

`$cfg['MysqlMinVersion']`

Type
array

Defines the minimum supported MySQL version. The default is chosen by the phpMyAdmin team; however this directive was asked by a developer of the Plesk control panel to ease integration with older MySQL servers (where most of the phpMyAdmin features work).

4.7 Database structure

`$cfg['ShowDbStructureCharset']`

Type
boolean

Default value
false

Defines whether to show a column displaying the charset for all tables in the database structure page.

`$cfg['ShowDbStructureComment']`

Type
boolean

Default value
false

Defines whether to show a column displaying the comments for all tables in the database structure page.

`$cfg['ShowDbStructureCreation']`

Type
boolean

Default value
false

Defines whether the database structure page (tables list) has a “Creation” column that displays when each table was created.

`$cfg['ShowDbStructureLastUpdate']`

Type
boolean

Default value
false

Defines whether the database structure page (tables list) has a "Last update" column that displays when each table was last updated.

`$cfg['ShowDbStructureLastCheck']`

Type
boolean

Default value
false

Defines whether the database structure page (tables list) has a "Last check" column that displays when each table was last checked.

`$cfg['HideStructureActions']`

Type
boolean

Default value
true

Defines whether the table structure actions are hidden under a "*More*" drop-down.

`$cfg['ShowColumnComments']`

Type
boolean

Default value
true

Defines whether to show column comments as a column in the table structure view.

4.8 Browse mode

`$cfg['TableNavigationLinksMode']`

Type
string

Default value
`'icons'`

Defines whether the table navigation links contain `'icons'`, `'text'` or `'both'`.

`$cfg['ActionLinksMode']`

Type
string

Default value
`'both'`

If set to `icons`, will display icons instead of text for db and table properties links (like *Browse*, *Select*, *Insert*, ...). Can be set to `'both'` if you want icons AND text. When set to `text`, will only show text.

`$cfg['RowActionType']`

Type
string

Default value
`'both'`

Whether to display icons or text or both icons and text in table row action segment. Value can be either of `'icons'`, `'text'` or `'both'`.

`$cfg['ShowAll']`

Type
boolean

Default value
false

Defines whether a user should be displayed a "*Show all*" button in browse mode or not in all cases. By default it is shown only on small tables (less than 500 rows) to avoid performance issues while getting too many rows.

`$cfg['MaxRows']`

Type
integer

Default value
25

Number of rows displayed when browsing a result set and no LIMIT clause is used. If the result set contains more rows, "*Previous*" and "*Next*" links will be shown. Possible values: 25,50,100,250,500.

`$cfg['Order']`

Type
string

Default value
`'SMART'`

Defines whether columns are displayed in ascending (`ASC`) order, in descending (`DESC`) order or in a "smart" (`SMART`) order - I.E. descending order for columns of type TIME, DATE, DATETIME and TIMESTAMP, ascending order else- by default.

Changed in version 3.4.0: Since phpMyAdmin 3.4.0 the default value is `'SMART'`.

`$cfg['DisplayBinaryAsHex']`

Type
boolean

Default value
true

Defines whether the "*Show binary contents as HEX*" browse option is ticked by default.

Added in version 3.3.0.

Deprecated since version 4.3.0: This setting was removed.

$cfg['GridEditing']

Type
string

Default value
'double-click'

Defines which action (double-click or click) triggers grid editing. Can be deactivated with the disabled value.

$cfg['RelationalDisplay']

Type
string

Default value
'K'

Defines the initial behavior for Options > Relational. K, which is the default, displays the key while D shows the display column.

$cfg['SaveCellsAtOnce']

Type
boolean

Default value
false

Defines whether or not to save all edited cells at once for grid editing.

4.9 Editing mode

$cfg['ProtectBinary']

Type
boolean or string

Default value
'blob'

Defines whether BLOB or BINARY columns are protected from editing when browsing a table's content. Valid values are:

- false to allow editing of all columns;
- 'blob' to allow editing of all columns except BLOBS;
- 'noblob' to disallow editing of all columns except BLOBS (the opposite of 'blob');
- 'all' to disallow editing of all BINARY or BLOB columns.

$cfg['ShowFunctionFields']

Type
boolean

Default value
true

Defines whether or not MySQL functions fields should be initially displayed in edit/insert mode. Since version 2.10, the user can toggle this setting from the interface.

`$cfg['ShowFieldTypesInDataEditView']`

Type
boolean

Default value
true

Defines whether or not type fields should be initially displayed in edit/insert mode. The user can toggle this setting from the interface.

`$cfg['InsertRows']`

Type
integer

Default value
2

Defines the default number of rows to be entered from the Insert page. Users can manually change this from the bottom of that page to add or remove blank rows.

`$cfg['ForeignKeyMaxLimit']`

Type
integer

Default value
100

If there are fewer items than this in the set of foreign keys, then a drop-down box of foreign keys is presented, in the style described by the *$cfg['ForeignKeyDropdownOrder']* setting.

`$cfg['ForeignKeyDropdownOrder']`

Type
array

Default value
`['content-id', 'id-content']`

For the foreign key drop-down fields, there are several methods of display, offering both the key and value data. The contents of the array should be one or both of the following strings: `content-id`, `id-content`.

4.10 Export and import settings

`$cfg['ZipDump']`

Type
boolean

Default value
true

`$cfg['GZipDump']`

Type
boolean

Default value
true

`$cfg['BZipDump']`

Type
boolean

Default value
true

Defines whether to allow the use of zip/GZip/BZip2 compression when creating a dump file

`$cfg['CompressOnFly']`

Type
boolean

Default value
true

Defines whether to allow on the fly compression for GZip/BZip2 compressed exports. This doesn't affect smaller dumps and allows users to create larger dumps that won't otherwise fit in memory due to php memory limit. Produced files contain more GZip/BZip2 headers, but all normal programs handle this correctly.

`$cfg['Export']`

Type
array

Default value
`[...]`

In this array are defined default parameters for export, names of items are similar to texts seen on export page, so you can easily identify what they mean.

`$cfg['Export']['format']`

Type
string

Default value
`'sql'`

Default export format.

`$cfg['Export']['method']`

Type
string

Default value
`'quick'`

Defines how the export form is displayed when it loads. Valid values are:

- `quick` to display the minimum number of options to configure
- `custom` to display every available option to configure
- `custom-no-form` same as `custom` but does not display the option of using quick export

`$cfg['Export']['compression']`

Type
string

Default value
'none'

Default export compression method. Possible values are 'none', 'zip' or 'gzip'.

$cfg['Export']['charset']

Type
string

Default value
''

Defines charset for generated export. By default no charset conversion is done assuming UTF-8.

$cfg['Export']['file_template_table']

Type
string

Default value
'@TABLE@'

Default filename template for table exports.

See also

6.27 What format strings can I use?

$cfg['Export']['file_template_database']

Type
string

Default value
'@DATABASE@'

Default filename template for database exports.

See also

6.27 What format strings can I use?

$cfg['Export']['file_template_server']

Type
string

Default value
'@SERVER@'

Default filename template for server exports.

See also

6.27 What format strings can I use?

`$cfg['Export']['remove_definer_from_definitions']`

Type
boolean

Default value
false

Remove DEFINER clause from the event, view and routine definitions.

Added in version 5.2.0.

`$cfg['Import']`

Type
array

Default value
`[...]`

In this array are defined default parameters for import, names of items are similar to texts seen on import page, so you can easily identify what they mean.

`$cfg['Import']['charset']`

Type
string

Default value
`''`

Defines charset for import. By default no charset conversion is done assuming UTF-8.

`$cfg['Schema']`

Type
array

Default value
`[...]`

`$cfg['Schema']['format']`

Type
string

Default value
`'pdf'`

Defines the default format for schema export. Possible values are `'pdf'`, `'eps'`, `'dia'` or `'svg'`.

4.11 Tabs display settings

`$cfg['TabsMode']`

Type
string

Default value
`'both'`

Defines whether the menu tabs contain `'icons'`, `'text'` or `'both'`.

`$cfg['PropertiesNumColumns']`

Type
integer

Default value
1

How many columns will be utilized to display the tables on the database property view? When setting this to a value larger than 1, the type of the database will be omitted for more display space.

`$cfg['DefaultTabServer']`

Type
string

Default value
`'welcome'`

Defines the tab displayed by default on server view. The possible values are the localized equivalent of:

- `welcome` (recommended for multi-user setups)
- `databases`,
- `status`
- `variables`
- `privileges`

`$cfg['DefaultTabDatabase']`

Type
string

Default value
`'structure'`

Defines the tab displayed by default on database view. The possible values are the localized equivalent of:

- `structure`
- `sql`
- `search`
- `operations`

`$cfg['DefaultTabTable']`

Type
string

Default value
`'browse'`

Defines the tab displayed by default on table view. The possible values are the localized equivalent of:

- `structure`
- `sql`
- `search`
- `insert`
- `browse`

4.12 PDF Options

$cfg['PDFPageSizes']

Type
array

Default value
`['A3', 'A4', 'A5', 'letter', 'legal']`

Array of possible paper sizes for creating PDF pages.

You should never need to change this.

$cfg['PDFDefaultPageSize']

Type
string

Default value
`'A4'`

Default page size to use when creating PDF pages. Valid values are any listed in *$cfg['PDFPageSizes']*.

4.13 Languages

$cfg['DefaultLang']

Type
string

Default value
`'en'`

Defines the default language to use, if not browser-defined or user- defined. The corresponding language file needs to be in `locale/*code*/LC_MESSAGES/phpmyadmin.mo`.

$cfg['DefaultConnectionCollation']

Type
string

Default value
`'utf8mb4_general_ci'`

Defines the default connection collation to use, if not user-defined. See the MySQL documentation for charsets for list of possible values.

$cfg['Lang']

Type
string

Default value
not set

Force language to use. The corresponding language file needs to be in `locale/*code*/LC_MESSAGES/phpmyadmin.mo`.

$cfg['FilterLanguages']

Type
string

Default value
''

Limit list of available languages to those matching the given regular expression. For example if you want only Czech and English, you should set filter to '^(cs|en)'.

$cfg['RecodingEngine']

Type
string

Default value
'auto'

You can select here which functions will be used for character set conversion. Possible values are:

- auto - automatically use available one (first is tested iconv, then recode)
- iconv - use iconv or libiconv functions
- recode - use recode_string function
- mb - use *mbstring* extension
- none - disable encoding conversion

Enabled charset conversion activates a pull-down menu in the Export and Import pages, to choose the character set when exporting a file. The default value in this menu comes from *$cfg['Export']['charset']* and *$cfg['Import']['charset']*.

$cfg['IconvExtraParams']

Type
string

Default value
'//TRANSLIT'

Specify some parameters for iconv used in charset conversion. See iconv documentation for details. By default //TRANSLIT is used, so that invalid characters will be transliterated.

$cfg['AvailableCharsets']

Type
array

Default value
[...]

Available character sets for MySQL conversion. You can add your own (any of supported by recode/iconv) or remove these which you don't use. Character sets will be shown in same order as here listed, so if you frequently use some of these move them to the top.

4.14 Web server settings

$cfg['OBGzip']

Type
string/boolean

Default value
'auto'

Defines whether to use GZip output buffering for increased speed in *HTTP* transfers. Set to true/false for enabling/disabling. When set to 'auto' (string), phpMyAdmin tries to enable output buffering and will automatically disable it if your browser has some problems with buffering. IE6 with a certain patch is known to cause data corruption when having enabled buffering.

$cfg['TrustedProxies']

Type
array

Default value
[]

Lists proxies and HTTP headers which are trusted for *$cfg['Servers'][$i]['AllowDeny']['order']*. This list is by default empty, you need to fill in some trusted proxy servers if you want to use rules for IP addresses behind proxy.

The following example specifies that phpMyAdmin should trust a HTTP_X_FORWARDED_FOR (X-Forwarded-For) header coming from the proxy 1.2.3.4:

```
$cfg['TrustedProxies'] = ['1.2.3.4' => 'HTTP_X_FORWARDED_FOR'];
```

The *$cfg['Servers'][$i]['AllowDeny']['rules']* directive uses the client's IP address as usual.

$cfg['GD2Available']

Type
string

Default value
'auto'

Specifies whether GD >= 2 is available. If yes it can be used for MIME transformations. Possible values are:

- auto - automatically detect
- yes - GD 2 functions can be used
- no - GD 2 function cannot be used

$cfg['CheckConfigurationPermissions']

Type
boolean

Default value
true

We normally check the permissions on the configuration file to ensure it's not world writable. However, phpMyAdmin could be installed on a NTFS filesystem mounted on a non-Windows server, in which case the permissions seems wrong but in fact cannot be detected. In this case a sysadmin would set this parameter to false.

$cfg['LinkLengthLimit']

Type
integer

Default value
1000

Limit for length of *URL* in links. When length would be above this limit, it is replaced by form with button. This is required as some web servers (*IIS*) have problems with long *URL*.

$cfg['CSPAllow']

Type
string

Default value
''

Additional string to include in allowed script and image sources in Content Security Policy header.

This can be useful when you want to include some external JavaScript files in `config.footer.inc.php` or `config.header.inc.php`, which would be normally not allowed by *Content Security Policy*.

To allow some sites, just list them within the string:

```
$cfg['CSPAllow'] = 'example.com example.net';
```

Added in version 4.0.4.

$cfg['DisableMultiTableMaintenance']

Type
boolean

Default value
false

In the database Structure page, it's possible to mark some tables then choose an operation like optimizing for many tables. This can slow down a server; therefore, setting this to `true` prevents this kind of multiple maintenance operation.

4.15 Theme settings

Please directly modify `themes/themename/scss/_variables.scss`, although your changes will be overwritten with the next update.

4.16 Design customization

$cfg['NavigationTreePointerEnable']

Type
boolean

Default value
true

When set to true, hovering over an item in the navigation panel causes that item to be marked (the background is highlighted).

$cfg['BrowsePointerEnable']

Type
boolean

Default value
true

When set to true, hovering over a row in the Browse page causes that row to be marked (the background is highlighted).

$cfg['BrowseMarkerEnable']

Type
boolean

Default value
true

When set to true, a data row is marked (the background is highlighted) when the row is selected with the checkbox.

$cfg['LimitChars']

Type
integer

Default value
50

Maximum number of characters shown in any non-numeric field on browse view. Can be turned off by a toggle button on the browse page.

$cfg['RowActionLinks']

Type
string

Default value
`'left'`

Defines the place where table row links (Edit, Copy, Delete) would be put when tables contents are displayed (you may have them displayed at the left side, right side, both sides or nowhere).

$cfg['RowActionLinksWithoutUnique']

Type
boolean

Default value
false

Defines whether to show row links (Edit, Copy, Delete) and checkboxes for multiple row operations even when the selection does not have a *unique key*. Using row actions in the absence of a unique key may result in different/more rows being affected since there is no guaranteed way to select the exact row(s).

$cfg['RememberSorting']

Type
boolean

Default value
true

If enabled, remember the sorting of each table when browsing them.

`$cfg['TablePrimaryKeyOrder']`

Type
string

Default value
`'NONE'`

This defines the default sort order for the tables, having a *primary key*, when there is no sort order defines externally. Possible values are:

- `NONE`
- `ASC`
- `DESC`

`$cfg['ShowBrowseComments']`

Type
boolean

Default value
true

`$cfg['ShowPropertyComments']`

Type
boolean

Default value
true

By setting the corresponding variable to `true` you can enable the display of column comments in Browse or Property display. In browse mode, the comments are shown inside the header. In property mode, comments are displayed using a CSS-formatted dashed-line below the name of the column. The comment is shown as a tool-tip for that column.

`$cfg['FirstDayOfCalendar']`

Type
integer

Default value
0

This will define the first day of week in the calendar. The number can be set from 0 to 6, which represents the seven days of the week, Sunday to Saturday respectively. This value can also be configured by the user in *Settings* -> *Features* -> *General* -> *First day of calendar* field.

4.17 Text fields

`$cfg['CharEditing']`

Type
string

Default value
`'input'`

Defines which type of editing controls should be used for CHAR and VARCHAR columns. Applies to data editing and also to the default values in structure editing. Possible values are:

- `input` - this allows to limit size of text to size of columns in MySQL, but has problems with newlines in columns
- `textarea` - no problems with newlines in columns, but also no length limitations

`$cfg['MinSizeForInputField']`

Type
integer

Default value
4

Defines the minimum size for input fields generated for CHAR and VARCHAR columns.

`$cfg['MaxSizeForInputField']`

Type
integer

Default value
60

Defines the maximum size for input fields generated for CHAR and VARCHAR columns.

`$cfg['TextareaCols']`

Type
integer

Default value
40

`$cfg['TextareaRows']`

Type
integer

Default value
15

`$cfg['CharTextareaCols']`

Type
integer

Default value
40

`$cfg['CharTextareaRows']`

Type
integer

Default value
7

Number of columns and rows for the textareas. This value will be emphasized (*2) for *SQL* query textareas and (*1.25) for *SQL* textareas inside the query window.

The Char* values are used for CHAR and VARCHAR editing (if configured via *$cfg['CharEditing']*).

Changed in version 5.0.0: The default value was changed from 2 to 7.

`$cfg['LongtextDoubleTextarea']`

Type
boolean

Default value
true

Defines whether textarea for LONGTEXT columns should have double size.

`$cfg['TextareaAutoSelect']`

Type
boolean

Default value
false

Defines if the whole textarea of the query box will be selected on click.

`$cfg['EnableAutocompleteForTablesAndColumns']`

Type
boolean

Default value
true

Whether to enable autocomplete for table and column names in any SQL query box.

4.18 SQL query box settings

`$cfg['SQLQuery']['Edit']`

Type
boolean

Default value
true

Whether to display an edit link to change a query in any SQL Query box.

`$cfg['SQLQuery']['Explain']`

Type
boolean

Default value
true

Whether to display a link to explain a SELECT query in any SQL Query box.

`$cfg['SQLQuery']['ShowAsPHP']`

Type
boolean

Default value
true

Whether to display a link to wrap a query in PHP code in any SQL Query box.

$cfg['SQLQuery']['Refresh']

Type
boolean

Default value
true

Whether to display a link to refresh a query in any SQL Query box.

4.19 Web server upload/save/import directories

If PHP is running in safe mode, all directories must be owned by the same user as the owner of the phpMyAdmin scripts.

If the directory where phpMyAdmin is installed is subject to an `open_basedir` restriction, you need to create a temporary directory in some directory accessible by the PHP interpreter.

For security reasons, all directories should be outside the tree published by webserver. If you cannot avoid having this directory published by webserver, limit access to it either by web server configuration (for example using .htaccess or web.config files) or place at least an empty `index.html` file there, so that directory listing is not possible. However as long as the directory is accessible by web server, an attacker can guess filenames to download the files.

$cfg['UploadDir']

Type
string

Default value
''

The name of the directory where *SQL* files have been uploaded by other means than phpMyAdmin (for example, FTP). Those files are available under a drop-down box when you click the database or table name, then the Import tab.

If you want different directory for each user, %u will be replaced with username.

Please note that the file names must have the suffix ".sql" (or ".sql.bz2" or ".sql.gz" if support for compressed formats is enabled).

This feature is useful when your file is too big to be uploaded via *HTTP*, or when file uploads are disabled in PHP.

Warning

Please see top of this chapter (*Web server upload/save/import directories*) for instructions how to setup this directory and how to make its usage secure.

See also

See *1.16 I cannot upload big dump files (memory, HTTP or timeout problems).* for alternatives.

$cfg['SaveDir']

Type
string

Default value
''

The name of the webserver directory where exported files can be saved.

If you want a different directory for each user, %u will be replaced with the username.

Please note that the directory must exist and has to be writable for the user running webserver.

> **Warning**
>
> Please see top of this chapter (*Web server upload/save/import directories*) for instructions how to setup this directory and how to make its usage secure.

`$cfg['TempDir']`

Type
string

Default value
`'./tmp/'`

The name of the directory where temporary files can be stored. It is used for several purposes, currently:

- The templates cache which speeds up page loading.
- ESRI Shapefiles import, see *6.30 Import: How can I import ESRI Shapefiles?*.
- To work around limitations of `open_basedir` for uploaded files, see *1.11 I get an 'open_basedir restriction' while uploading a file from the import tab.*.

This directory should have as strict permissions as possible as the only user required to access this directory is the one who runs the webserver. If you have root privileges, simply make this user owner of this directory and make it accessible only by it:

```
chown www-data:www-data tmp
chmod 700 tmp
```

If you cannot change owner of the directory, you can achieve a similar setup using *ACL*:

```
chmod 700 tmp
setfacl -m "g:www-data:rwx" tmp
setfacl -d -m "g:www-data:rwx" tmp
```

If neither of above works for you, you can still make the directory **`chmod 777`**, but it might impose risk of other users on system reading and writing data in this directory.

Warning

Please see top of this chapter (*Web server upload/save/import directories*) for instructions how to setup this directory and how to make its usage secure.

4.20 Various display setting

`$cfg['RepeatCells']`

Type
integer

Default value
100

Repeat the headers every X cells, or 0 to deactivate.

`$cfg['EditInWindow']`

Type
boolean

Default value
true

See also

Feature request to add a pop-up window back

Deprecated since version 4.3.0: This setting was removed.

`$cfg['QueryWindowWidth']`

Type
integer

Default value
550

Deprecated since version 4.3.0: This setting was removed.

`$cfg['QueryWindowHeight']`

Type
integer

Default value
310

Deprecated since version 4.3.0: This setting was removed.

`$cfg['QueryHistoryDB']`

Type
boolean

Default value
false

$cfg['QueryWindowDefTab']

Type
string

Default value
'sql'

Deprecated since version 4.3.0: This setting was removed.

$cfg['QueryHistoryMax']

Type
integer

Default value
25

If *$cfg['QueryHistoryDB']* is set to true, all your Queries are logged to a table, which has to be created by you (see *$cfg['Servers'][$i]['history']*). If set to false, all your queries will be appended to the form, but only as long as your window is opened they remain saved.

When using the JavaScript based query window, it will always get updated when you click on a new table/db to browse and will focus if you click on *Edit SQL* after using a query. You can suppress updating the query window by checking the box *Do not overwrite this query from outside the window* below the query textarea. Then you can browse tables/databases in the background without losing the contents of the textarea, so this is especially useful when composing a query with tables you first have to look in. The checkbox will get automatically checked whenever you change the contents of the textarea. Please uncheck the button whenever you definitely want the query window to get updated even though you have made alterations.

If *$cfg['QueryHistoryDB']* is set to true you can specify the amount of saved history items using *$cfg['QueryHistoryMax']*.

$cfg['BrowseMIME']

Type
boolean

Default value
true

Enable *Transformations*.

$cfg['MaxExactCount']

Type
integer

Default value
50000

For InnoDB tables, determines for how large tables phpMyAdmin should get the exact row count using SELECT COUNT. If the approximate row count as returned by SHOW TABLE STATUS is smaller than this value, SELECT COUNT will be used, otherwise the approximate count will be used.

Changed in version 4.8.0: The default value was lowered to 50000 for performance reasons.

Changed in version 4.2.6: The default value was changed to 500000.

> **See also**
>
> *3.11 The number of rows for InnoDB tables is not correct.*

`$cfg['MaxExactCountViews']`

Type
integer

Default value
0

For VIEWs, since obtaining the exact count could have an impact on performance, this value is the maximum to be displayed, using a `SELECT COUNT ... LIMIT`. Setting this to 0 bypasses any row counting.

`$cfg['NaturalOrder']`

Type
boolean

Default value
true

Sorts database and table names according to natural order (for example, t1, t2, t10). Currently implemented in the navigation panel and in Database view, for the table list.

`$cfg['InitialSlidersState']`

Type
string

Default value
`'closed'`

If set to `'closed'`, the visual sliders are initially in a closed state. A value of `'open'` does the reverse. To completely disable all visual sliders, use `'disabled'`.

`$cfg['UserprefsDisallow']`

Type
array

Default value
`[]`

Contains names of configuration options (keys in `$cfg` array) that users can't set through user preferences. For possible values, refer to classes under `libraries/classes/Config/Forms/User/`.

`$cfg['UserprefsDeveloperTab']`

Type
boolean

Default value
false

Added in version 3.4.0.

Activates in the user preferences a tab containing options for developers of phpMyAdmin.

4.21 Page titles

The page title displayed by your browser's window or tab title bar can be customized. You can use *6.27 What format strings can I use?*. The following four options allow customizing various parts of the phpMyAdmin interface. Note that the login page title cannot be changed.

$cfg['TitleTable']

Type
string

Default value
`'@HTTP_HOST@ / @VSERVER@ / @DATABASE@ / @TABLE@ | @PHPMYADMIN@'`

$cfg['TitleDatabase']

Type
string

Default value
`'@HTTP_HOST@ / @VSERVER@ / @DATABASE@ | @PHPMYADMIN@'`

$cfg['TitleServer']

Type
string

Default value
`'@HTTP_HOST@ / @VSERVER@ | @PHPMYADMIN@'`

$cfg['TitleDefault']

Type
string

Default value
`'@HTTP_HOST@ | @PHPMYADMIN@'`

4.22 Theme manager settings

$cfg['ThemeManager']

Type
boolean

Default value
true

Enables user-selectable themes. See *2.7 Using and creating themes*.

$cfg['ThemeDefault']

Type
string

Default value
`'pmahomme'`

The default theme (a subdirectory under `./themes/`).

$cfg['ThemePerServer']

Type
boolean

Default value
false

Whether to allow different theme for each server.

$cfg['FontSize']

Type
string

Default value
'82%'

Deprecated since version 5.0.0: This setting was removed as the browser is more efficient, thus no need of this option.

Font size to use, is applied in CSS.

4.23 Default queries

$cfg['DefaultQueryTable']

Type
string

Default value
```
'SELECT * FROM @TABLE@ WHERE 1'
```

$cfg['DefaultQueryDatabase']

Type
string

Default value
```
''
```

Default queries that will be displayed in query boxes when user didn't specify any. You can use standard *6.27 What format strings can I use?*.

4.24 MySQL settings

$cfg['DefaultFunctions']

Type
array

Default value
```
['FUNC_CHAR' => '', 'FUNC_DATE' => '', 'FUNC_NUMBER' => '',
'FUNC_SPATIAL' => 'GeomFromText', 'FUNC_UUID' => 'UUID',
'first_timestamp' => 'NOW']
```

Functions selected by default when inserting/changing row, Functions are defined for meta types as (`FUNC_NUMBER`, `FUNC_DATE`, `FUNC_CHAR`, `FUNC_SPATIAL`, `FUNC_UUID`) and for `first_timestamp`, which is used for first timestamp column in table.

Example configuration

```
$cfg['DefaultFunctions'] = [
    'FUNC_CHAR' => '',
    'FUNC_DATE' => '',
    'FUNC_NUMBER' => '',
    'FUNC_SPATIAL' => 'ST_GeomFromText',
    'FUNC_UUID' => 'UUID',
    'first_timestamp' => 'UTC_TIMESTAMP',
];
```

4.25 Default options for Transformations

$cfg['DefaultTransformations']

Type
array

Default value
An array with below listed key-values

$cfg['DefaultTransformations']['Substring']

Type
array

Default value
`[0, 'all', '...']`

$cfg['DefaultTransformations']['Bool2Text']

Type
array

Default value
`['T', 'F']`

$cfg['DefaultTransformations']['External']

Type
array

Default value
`[0, '-f /dev/null -i -wrap -q', 1, 1]`

$cfg['DefaultTransformations']['PreApPend']

Type
array

Default value
`['', '']`

$cfg['DefaultTransformations']['Hex']

Type
array

Default value
`['2']`

`$cfg['DefaultTransformations']['DateFormat']`

Type
array

Default value
`[0, '', 'local']`

`$cfg['DefaultTransformations']['Inline']`

Type
array

Default value
`['100', 100]`

`$cfg['DefaultTransformations']['TextImageLink']`

Type
array

Default value
`['', 100, 50]`

`$cfg['DefaultTransformations']['TextLink']`

Type
array

Default value
`['', '', '']`

4.26 Console settings

Note

These settings are mostly meant to be changed by user.

`$cfg['Console']['StartHistory']`

Type
boolean

Default value
false

Show query history at start

`$cfg['Console']['AlwaysExpand']`

Type
boolean

Default value
false

Always expand query messages

`$cfg['Console']['CurrentQuery']`

Type
boolean

Default value
true

Show current browsing query

`$cfg['Console']['EnterExecutes']`

Type
boolean

Default value
false

Execute queries on Enter and insert new line with Shift+Enter

`$cfg['Console']['DarkTheme']`

Type
boolean

Default value
false

Switch to dark theme

`$cfg['Console']['Mode']`

Type
string

Default value
`'info'`

Console mode

`$cfg['Console']['Height']`

Type
integer

Default value
92

Console height

4.27 Developer

Warning

These settings might have huge effect on performance or security.

`$cfg['environment']`

Type
string

Default value
'production'

Sets the working environment.

This only needs to be changed when you are developing phpMyAdmin itself. The `development` mode may display debug information in some places.

Possible values are `'production'` or `'development'`.

`$cfg['DBG']`

Type
array

Default value
[]

`$cfg['DBG']['sql']`

Type
boolean

Default value
false

Enable logging queries and execution times to be displayed in the console's Debug SQL tab.

`$cfg['DBG']['sqllog']`

Type
boolean

Default value
false

Enable logging of queries and execution times to the syslog. Requires *$cfg['DBG']['sql']* to be enabled.

`$cfg['DBG']['demo']`

Type
boolean

Default value
false

Enable to let server present itself as demo server. This is used for phpMyAdmin demo server.

It currently changes following behavior:

- There is welcome message on the main page.
- There is footer information about demo server and used Git revision.
- The setup script is enabled even with existing configuration.
- The setup does not try to connect to the MySQL server.

`$cfg['DBG']['simple2fa']`

Type
boolean

Default value
false

Can be used for testing two-factor authentication using *Simple two-factor authentication*.

4.28 Examples

See following configuration snippets for typical setups of phpMyAdmin.

4.28.1 Basic example

Example configuration file, which can be copied to `config.inc.php` to get some core configuration layout; it is distributed with phpMyAdmin as `config.sample.inc.php`. Please note that it does not contain all configuration options, only the most frequently used ones.

```
<?php
/**
 * phpMyAdmin sample configuration, you can use it as base for
 * manual configuration. For easier setup you can use setup/
 *
 * All directives are explained in documentation in the doc/ folder
 * or at <https://docs.phpmyadmin.net/>.
 */

declare(strict_types=1);

/**
 * This is needed for cookie based authentication to encrypt the cookie.
 * Needs to be a 32-bytes long string of random bytes. See FAQ 2.10.
 */
$cfg['blowfish_secret'] = ''; /* YOU MUST FILL IN THIS FOR COOKIE AUTH! */

/**
 * Servers configuration
 */
$i = 0;

/**
 * First server
 */
$i++;
/* Authentication type */
$cfg['Servers'][$i]['auth_type'] = 'cookie';
/* Server parameters */
$cfg['Servers'][$i]['host'] = 'localhost';
$cfg['Servers'][$i]['compress'] = false;
$cfg['Servers'][$i]['AllowNoPassword'] = false;

/**
 * phpMyAdmin configuration storage settings.
 */

/* User used to manipulate with storage */
// $cfg['Servers'][$i]['controlhost'] = '';
// $cfg['Servers'][$i]['controlport'] = '';
// $cfg['Servers'][$i]['controluser'] = 'pma';
```

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```
// $cfg['Servers'][$i]['controlpass'] = 'pmapass';

/* Storage database and tables */
// $cfg['Servers'][$i]['pmadb'] = 'phpmyadmin';
// $cfg['Servers'][$i]['bookmarktable'] = 'pma__bookmark';
// $cfg['Servers'][$i]['relation'] = 'pma__relation';
// $cfg['Servers'][$i]['table_info'] = 'pma__table_info';
// $cfg['Servers'][$i]['table_coords'] = 'pma__table_coords';
// $cfg['Servers'][$i]['pdf_pages'] = 'pma__pdf_pages';
// $cfg['Servers'][$i]['column_info'] = 'pma__column_info';
// $cfg['Servers'][$i]['history'] = 'pma__history';
// $cfg['Servers'][$i]['table_uiprefs'] = 'pma__table_uiprefs';
// $cfg['Servers'][$i]['tracking'] = 'pma__tracking';
// $cfg['Servers'][$i]['userconfig'] = 'pma__userconfig';
// $cfg['Servers'][$i]['recent'] = 'pma__recent';
// $cfg['Servers'][$i]['favorite'] = 'pma__favorite';
// $cfg['Servers'][$i]['users'] = 'pma__users';
// $cfg['Servers'][$i]['usergroups'] = 'pma__usergroups';
// $cfg['Servers'][$i]['navigationhiding'] = 'pma__navigationhiding';
// $cfg['Servers'][$i]['savedsearches'] = 'pma__savedsearches';
// $cfg['Servers'][$i]['central_columns'] = 'pma__central_columns';
// $cfg['Servers'][$i]['designer_settings'] = 'pma__designer_settings';
// $cfg['Servers'][$i]['export_templates'] = 'pma__export_templates';

/**
 * End of servers configuration
 */

/**
 * Directories for saving/loading files from server
 */
$cfg['UploadDir'] = '';
$cfg['SaveDir'] = '';

/**
 * Whether to display icons or text or both icons and text in table row
 * action segment. Value can be either of 'icons', 'text' or 'both'.
 * default = 'both'
 */
//$cfg['RowActionType'] = 'icons';

/**
 * Defines whether a user should be displayed a "show all (records)"
 * button in browse mode or not.
 * default = false
 */
//$cfg['ShowAll'] = true;

/**
 * Number of rows displayed when browsing a result set. If the result
 * set contains more rows, "Previous" and "Next".
 * Possible values: 25, 50, 100, 250, 500
```

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```
 * default = 25
 */
//$cfg['MaxRows'] = 50;

/**
 * Disallow editing of binary fields
 * valid values are:
 *   false    allow editing
 *   'blob'   allow editing except for BLOB fields
 *   'noblob' disallow editing except for BLOB fields
 *   'all'    disallow editing
 * default = 'blob'
 */
//$cfg['ProtectBinary'] = false;

/**
 * Default language to use, if not browser-defined or user-defined
 * (you find all languages in the locale folder)
 * uncomment the desired line:
 * default = 'en'
 */
//$cfg['DefaultLang'] = 'en';
//$cfg['DefaultLang'] = 'de';

/**
 * How many columns should be used for table display of a database?
 * (a value larger than 1 results in some information being hidden)
 * default = 1
 */
//$cfg['PropertiesNumColumns'] = 2;

/**
 * Set to true if you want DB-based query history.If false, this utilizes
 * JS-routines to display query history (lost by window close)
 *
 * This requires configuration storage enabled, see above.
 * default = false
 */
//$cfg['QueryHistoryDB'] = true;

/**
 * When using DB-based query history, how many entries should be kept?
 * default = 25
 */
//$cfg['QueryHistoryMax'] = 100;

/**
 * Whether or not to query the user before sending the error report to
 * the phpMyAdmin team when a JavaScript error occurs
 *
 * Available options
 * ('ask' | 'always' | 'never')
```

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```
 * default = 'ask'
 */
//$cfg['SendErrorReports'] = 'always';

/**
 * 'URLQueryEncryption' defines whether phpMyAdmin will encrypt sensitive data from the␣
↪URL query string.
 * 'URLQueryEncryptionSecretKey' is a 32 bytes long secret key used to encrypt/decrypt␣
↪the URL query string.
 */
//$cfg['URLQueryEncryption'] = true;
//$cfg['URLQueryEncryptionSecretKey'] = '';

/**
 * You can find more configuration options in the documentation
 * in the doc/ folder or at <https://docs.phpmyadmin.net/>.
 */
```

Warning

Don't use the controluser 'pma' if it does not yet exist and don't use 'pmapass' as password.

4.28.2 Example for signon authentication

This example uses `examples/signon.php` to demonstrate usage of *Signon authentication mode*:

```
<?php
$i = 0;
$i++;
$cfg['Servers'][$i]['auth_type']     = 'signon';
$cfg['Servers'][$i]['SignonSession'] = 'SignonSession';
$cfg['Servers'][$i]['SignonURL']     = 'examples/signon.php';
```

4.28.3 Example for IP address limited autologin

If you want to automatically login when accessing phpMyAdmin locally while asking for a password when accessing remotely, you can achieve it using following snippet:

```
if ($_SERVER['REMOTE_ADDR'] === '127.0.0.1') {
    $cfg['Servers'][$i]['auth_type'] = 'config';
    $cfg['Servers'][$i]['user'] = 'root';
    $cfg['Servers'][$i]['password'] = 'yourpassword';
} else {
    $cfg['Servers'][$i]['auth_type'] = 'cookie';
}
```

Note

Filtering based on IP addresses isn't reliable over the internet, use it only for local address.

4.28.4 Example for using multiple MySQL servers

You can configure any number of servers using *$cfg['Servers']*, following example shows two of them:

```
<?php
// The string is a hexadecimal representation of a 32-bytes long string of random bytes.
$cfg['blowfish_secret'] = sodium_hex2bin(
↪'f16ce59f45714194371b48fe362072dc3b019da7861558cd4ad29e4d6fb13851');
$i = 0;

$i++; // server 1 :
$cfg['Servers'][$i]['auth_type'] = 'cookie';
$cfg['Servers'][$i]['verbose']   = 'no1';
$cfg['Servers'][$i]['host']      = 'localhost';
// more options for #1 ...

$i++; // server 2 :
$cfg['Servers'][$i]['auth_type'] = 'cookie';
$cfg['Servers'][$i]['verbose']   = 'no2';
$cfg['Servers'][$i]['host']      = 'remote.host.addr';//or ip:'10.9.8.1'
// this server must allow remote clients, e.g., host 10.9.8.%
// not only in mysql.host but also in the startup configuration
// more options for #2 ...

// end of server sections
$cfg['ServerDefault'] = 0; // to choose the server on startup

// further general options ...
```

4.28.5 Google Cloud SQL with SSL

To connect to Google Could SQL, you currently need to disable certificate verification. This is caused by the certificate being issued for CN matching your instance name, but you connect to an IP address and PHP tries to match these two. With verification you end up with error message like:

```
Peer certificate CN=`api-project-851612429544:pmatest' did not match expected CN=`8.8.8.8
↪'
```

Warning

With disabled verification your traffic is encrypted, but you're open to man in the middle attacks.

To connect phpMyAdmin to Google Cloud SQL using SSL download the client and server certificates and tell phpMyAdmin to use them:

```
// IP address of your instance
$cfg['Servers'][$i]['host'] = '8.8.8.8';
// Use SSL for connection
$cfg['Servers'][$i]['ssl'] = true;
// Client secret key
$cfg['Servers'][$i]['ssl_key'] = '../client-key.pem';
// Client certificate
```

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```
$cfg['Servers'][$i]['ssl_cert'] = '../client-cert.pem';
// Server certification authority
$cfg['Servers'][$i]['ssl_ca'] = '../server-ca.pem';
// Disable SSL verification (see above note)
$cfg['Servers'][$i]['ssl_verify'] = false;
```

See also

Using SSL for connection to database server, *$cfg['Servers'][$i]['ssl']*, *$cfg['Servers'][$i]['ssl_key']*, *$cfg['Servers'][$i]['ssl_cert']*, *$cfg['Servers'][$i]['ssl_ca']*, *$cfg['Servers'][$i]['ssl_verify']*, <https://bugs.php.net/bug.php?id=72048>

4.28.6 Amazon RDS Aurora with SSL

To connect phpMyAdmin to an Amazon RDS Aurora MySQL database instance using SSL, download the CA server certificate and tell phpMyAdmin to use it:

```
// Address of your instance
$cfg['Servers'][$i]['host'] = 'replace-me-cluster-name.cluster-replace-me-id.replace-me-
↪region.rds.amazonaws.com';
// Use SSL for connection
$cfg['Servers'][$i]['ssl'] = true;
// You need to have the region CA file and the authority CA file (2019 edition CA for␣
↪example) in the PEM bundle for it to work
$cfg['Servers'][$i]['ssl_ca'] = '../rds-combined-ca-bundle.pem';
// Enable SSL verification
$cfg['Servers'][$i]['ssl_verify'] = true;
```

See also

Using SSL for connection to database server, *$cfg['Servers'][$i]['ssl']*, *$cfg['Servers'][$i]['ssl_ca']*, *$cfg['Servers'][$i]['ssl_verify']*

See also

- Current RDS CA bundle for all regions https://s3.amazonaws.com/rds-downloads/rds-combined-ca-bundle.pem
- The RDS CA (2019 edition) for the region *eu-west-3* without the parent CA https://s3.amazonaws.com/rds-downloads/rds-ca-2019-eu-west-3.pem
- List of available Amazon RDS CA files
- Amazon MySQL Aurora security guide
- Amazon certificates bundles per region

4.28.7 reCaptcha using hCaptcha

```
$cfg['CaptchaApi'] = 'https://js.hcaptcha.com/1/api.js';
$cfg['CaptchaCsp'] = 'https://hcaptcha.com https://*.hcaptcha.com';
$cfg['CaptchaRequestParam'] = 'h-captcha';
$cfg['CaptchaResponseParam'] = 'h-captcha-response';
$cfg['CaptchaSiteVerifyURL'] = 'https://hcaptcha.com/siteverify';
// This is the secret key from hCaptcha dashboard
$cfg['CaptchaLoginPrivateKey'] = '0xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx';
// This is the site key from hCaptcha dashboard
$cfg['CaptchaLoginPublicKey'] = 'xxx-xxx-xxx-xxx-xxxx';
```

See also

hCaptcha website

See also

hCaptcha Developer Guide

4.28.8 reCaptcha using Turnstile

```
$cfg['CaptchaMethod'] = 'checkbox';
$cfg['CaptchaApi'] = 'https://challenges.cloudflare.com/turnstile/v0/api.js';
$cfg['CaptchaCsp'] = 'https://challenges.cloudflare.com https://static.
↪cloudflareinsights.com';
$cfg['CaptchaRequestParam'] = 'cf-turnstile';
$cfg['CaptchaResponseParam'] = 'cf-turnstile-response';
$cfg['CaptchaLoginPublicKey'] = '0xxxxxxxxxxxxxxxxxxxx';
$cfg['CaptchaLoginPrivateKey'] = '0x4AAAAAAAA_xx_xxxxxxxxxxxxxxxxxxx';
$cfg['CaptchaSiteVerifyURL'] = 'https://challenges.cloudflare.com/turnstile/v0/siteverify
↪';
```

See also

Cloudflare Dashboard

See also

Turnstile Developer Guide

4.28.9 reCaptcha using Google reCaptcha v2/v3

```
$cfg['CaptchaLoginPublicKey'] = 'xxxxxxxxxxxxxxx-xxxxxxxxxxx';
$cfg['CaptchaLoginPrivateKey'] = 'xxxxxxxxx-xxxxxxxxxxxxx';
// Remove it if you dot not want the checkbox mode
$cfg['CaptchaMethod'] = 'checkbox';
```

See also

Google reCaptcha Developer's Guide

See also

Google reCaptcha types

CHAPTER

FIVE

USER GUIDE

5.1 Configuring phpMyAdmin

There are many configuration settings that can be used to customize the interface. Those settings are described in *Configuration*. There are several layers of the configuration.

The global settings can be configured in `config.inc.php` as described in *Configuration*. This is only way to configure connections to databases and other system wide settings.

On top of this there are user settings which can be persistently stored in *phpMyAdmin configuration storage*, possibly automatically configured through *Zero configuration*. If the *phpMyAdmin configuration storage* are not configured, the settings are temporarily stored in the session data; these are valid only until you logout.

You can also save the user configuration for further use, either download them as a file or to the browser local storage. You can find both those options in the *Settings* tab. The settings stored in browser local storage will be automatically offered for loading upon your login to phpMyAdmin.

5.2 Two-factor authentication

Added in version 4.8.0.

Since phpMyAdmin 4.8.0 you can configure two-factor authentication to be used when logging in. To use this, you first need to configure the *phpMyAdmin configuration storage*. Once this is done, every user can opt-in for the second authentication factor in the *Settings*.

When running phpMyAdmin from the Git source repository, the dependencies must be installed manually; the typical way of doing so is with the command:

```
composer require pragmarx/google2fa-qrcode bacon/bacon-qr-code
```

Or when using a hardware security key with FIDO U2F:

```
composer require code-lts/u2f-php-server
```

5.2.1 Authentication Application (2FA)

Using an application for authentication is a quite common approach based on HOTP and TOTP. It is based on transmitting a private key from phpMyAdmin to the authentication application and the application is then able to generate one time codes based on this key. The easiest way to enter the key in to the application from phpMyAdmin is through scanning a QR code.

There are dozens of applications available for mobile phones to implement these standards, the most widely used include:

- FreeOTP for iOS, Android and Pebble
- Authy for iOS, Android, Chrome, OS X
- Google Authenticator for iOS
- Google Authenticator for Android
- LastPass Authenticator for iOS, Android, OS X, Windows

5.2.2 Hardware Security Key (FIDO U2F)

Using hardware tokens is considered to be more secure than a software based solution. phpMyAdmin supports FIDO U2F tokens.

There are several manufacturers of these tokens, for example:

- youbico FIDO U2F Security Key
- HyperFIDO
- Trezor Hardware Wallet can act as an U2F token
- List of Two Factor Auth (2FA) Dongles

5.2.3 Simple two-factor authentication

This authentication is included for testing and demonstration purposes only as it really does not provide two-factor authentication, it just asks the user to confirm login by clicking on the button.

It should not be used in the production and is disabled unless *`$cfg['DBG']['simple2fa']`* is set.

5.3 Transformations

Note

You need to have configured the *phpMyAdmin configuration storage* to use the transformations feature.

5.3.1 Introduction

To enable transformations, you have to set up the `column_info` table and the proper directives. Please see the *Configuration* on how to do so.

phpMyAdmin has two different types of transformations: browser display transformations, which affect only how the data is shown when browsing through phpMyAdmin; and input transformations, which affect a value prior to being inserted through phpMyAdmin. You can apply different transformations to the contents of each column. Each transformation has options to define how it will affect the stored data.

Say you have a column `filename` which contains a filename. Normally you would see in phpMyAdmin only this filename. Using display transformations you can transform that filename into a HTML link, so you can click inside of the phpMyAdmin structure on the column's link and will see the file displayed in a new browser window. Using transformation options you can also specify strings to append/prepend to a string or the format you want the output stored in.

For a general overview of all available transformations and their options, you can either go to the `Change` link for an existing column or from the dialog to create a new column, in either case there is a link on that column structure page for "Browser display transformation" and "Input transformation" which will show more information about each transformation that is available on your system.

For a tutorial on how to effectively use transformations, see our Link section on the official phpMyAdmin homepage.

5.3.2 Usage

Go to the table structure page (reached by clicking on the 'Structure' link for a table). There click on "Change" (or the change icon) and there you will see the five transformation–related fields at the end of the line. They are called '*Media type*', 'Browser transformation' and 'Transformation options'.

- The field '*Media type*' is a drop-down field. Select the *Media type* that corresponds to the column's contents. Please note that many transformations are inactive until a *Media type* is selected.
- The field 'Browser display transformation' is a drop-down field. You can choose from a hopefully growing amount of pre-defined transformations. See below for information on how to build your own transformation. There are global transformations and mimetype-bound transformations. Global transformations can be used for any mimetype. They will take the mimetype, if necessary, into regard. Mimetype-bound transformations usually only operate on a certain mimetype. There are transformations which operate on the main mimetype (like 'image'), which will most likely take the subtype into regard, and those who only operate on a specific subtype (like 'image/jpeg'). You can use transformations on mimetypes for which the function was not defined for. There is no security check for you selected the right transformation, so take care of what the output will be like.
- The field 'Browser display transformation options' is a free-type textfield. You have to enter transform-function specific options here. Usually the transforms can operate with default options, but it is generally a good idea to look up the overview to see which options are necessary. Much like the ENUM/SET-Fields, you have to split up several options using the format 'a','b','c',...(NOTE THE MISSING BLANKS). This is because internally the options will be parsed as an array, leaving the first value the first element in the array, and so forth. If you want to specify a MIME character set you can define it in the transformation_options. You have to put that outside of the pre- defined options of the specific mime-transform, as the last value of the set. Use the format "'; charset=XXX'". If you use a transform, for which you can specify 2 options and you want to append a character set, enter "'first parameter','second parameter','charset=us-ascii'". You can, however use the defaults for the parameters: "'','','charset =us-ascii'". The default options can be configured using *$cfg['DefaultTransformations']*.
- 'Input transformation' is another drop-down menu that corresponds exactly with the instructions above for "Browser display transformation" except these affect the data before insertion in to the database. These are most commonly used to either provide a specialized editor (for example, using the phpMyAdmin SQL editor interface) or selector (such as for uploading an image). It's also possible to manipulate the data such as converting an IPv4 address to binary or parsing it through a regular expression.
- Finally, 'Input transformation options' is the equivalent of the "Browser display transformation options" section above and is where optional and required parameters are entered.

5.3.3 File structure

All specific transformations for mimetypes are defined through class files in the directory `libraries/classes/Plugins/Transformations/`. Each of them extends a certain transformation abstract class declared in `libraries/classes/Plugins/Transformations/Abs`.

They are stored in files to ease customization and to allow easy adding of new or custom transformations.

Because the user cannot enter their own mimetypes, it is kept certain that the transformations will always work. It makes no sense to apply a transformation to a mimetype the transform-function doesn't know to handle.

There is a file called `libraries/classes/Plugins/Transformations.php` that provides some basic functions which can be included by any other transform function.

The file name convention is `[Mimetype]_[Subtype]_[Transformation Name].php`, while the abstract class that it extends has the name `[Transformation Name]TransformationsPlugin`. All of the methods that have to be implemented by a transformations plug-in are:

1. getMIMEType() and getMIMESubtype() in the main class;

2. getName(), getInfo() and applyTransformation() in the abstract class it extends.

The getMIMEType(), getMIMESubtype() and getName() methods return the name of the MIME type, MIME Subtype and transformation accordingly. getInfo() returns the transformation's description and possible options it may receive and applyTransformation() is the method that does the actual work of the transformation plug-in.

Please see the `libraries/classes/Plugins/Transformations/TEMPLATE` and `libraries/classes/Plugins/Transformations/TEMPLATE_ABSTRACT` files for adding your own transformation plug-in. You can also generate a new transformation plug-in (with or without the abstract transformation class), by using `scripts/transformations_generator_plugin.sh` or `scripts/transformations_generator_main_class.sh`.

The applyTransformation() method always gets passed three variables:

1. **$buffer** - Contains the text inside of the column. This is the text, you want to transform.
2. **$options** - Contains any user-passed options to a transform function as an array.
3. **$meta** - Contains an object with information about your column. The data is drawn from the output of the mysql_fetch_field() function. This means, all object properties described on the manual page are available in this variable and can be used to transform a column accordingly to unsigned/zerofill/not_null/... properties. The $meta->mimetype variable contains the original *Media type* of the column (i.e. 'text/plain', 'image/jpeg' etc.)

5.4 Bookmarks

> **Note**
>
> You need to have configured the *phpMyAdmin configuration storage* for using bookmarks feature.

5.4.1 Storing bookmarks

Any query that is executed can be marked as a bookmark on the page where the results are displayed. You will find a button labeled *Bookmark this query* just at the end of the page. As soon as you have stored a bookmark, that query is linked to the database. You can now access a bookmark dropdown on each page where the query box appears on for that database.

5.4.2 Variables inside bookmarks

Inside a query, you can also add placeholders for variables. This is done by inserting into the query SQL comments between `/*` and `*/`. The special string `[VARIABLE{variable-number}]` is used inside the comments. Be aware that the whole query minus the SQL comments must be valid by itself, otherwise you won't be able to store it as a bookmark. Also, note that the text 'VARIABLE' is case-sensitive.

When you execute the bookmark, everything typed into the *Variables* input boxes on the query box page will replace the strings `/*[VARIABLE{variable-number}]*/` in your stored query.

Also remember, that everything else inside the `/*[VARIABLE{variable-number}]*/` string for your query will remain the way it is, but will be stripped of the `/**/` chars. So you can use:

```
/*, [VARIABLE1] AS myname */
```

which will be expanded to

```
, VARIABLE1 as myname
```

in your query, where VARIABLE1 is the string you entered in the Variable 1 input box.

A more complex example, say you have stored this query:

```
SELECT Name, Address FROM addresses WHERE 1 /* AND Name LIKE '%[VARIABLE1]%' */
```

If you wish to enter "phpMyAdmin" as the variable for the stored query, the full query will be:

```
SELECT Name, Address FROM addresses WHERE 1 AND Name LIKE '%phpMyAdmin%'
```

NOTE THE ABSENCE OF SPACES inside the /**/ construct. Any spaces inserted there will be later also inserted as spaces in your query and may lead to unexpected results especially when using the variable expansion inside of a "LIKE '%%'" expression.

5.4.3 Browsing a table using a bookmark

When a bookmark has the same name as the table, it will be used as the query when browsing this table.

See also

6.18 Bookmarks: Where can I store bookmarks? Why can't I see any bookmarks below the query box? What are these variables for?, *6.22 Bookmarks: Can I execute a default bookmark automatically when entering Browse mode for a table?*

5.5 User management

User management is the process of controlling which users are allowed to connect to the MySQL server and what permissions they have on each database. phpMyAdmin does not handle user management, rather it passes the username and password on to MySQL, which then determines whether a user is permitted to perform a particular action. Within phpMyAdmin, administrators have full control over creating users, viewing and editing privileges for existing users, and removing users.

Within phpMyAdmin, user management is controlled via the *User accounts* tab from the main page. Users can be created, edited, and removed.

5.5.1 Creating a new user

To create a new user, click the *Add user account* link near the bottom of the *User accounts* page (you must be a "superuser", e.g., user "root"). Use the textboxes and drop-downs to configure the user to your particular needs. You can then select whether to create a database for that user and grant specific global privileges. Once you've created the user (by clicking Go), you can define that user's permissions on a specific database (don't grant global privileges in that case). In general, users do not need any global privileges (other than USAGE), only permissions for their specific database.

5.5.2 Editing an existing user

To edit an existing user, simply click the pencil icon to the right of that user in the *User accounts* page. You can then edit their global- and database-specific privileges, change their password, or even copy those privileges to a new user.

5.5.3 Deleting a user

From the *User accounts* page, check the checkbox for the user you wish to remove, select whether or not to also remove any databases of the same name (if they exist), and click Go.

5.5.4 Assigning privileges to user for a specific database

Users are assigned to databases by editing the user record (from the *User accounts* link on the home page). If you are creating a user specifically for a given table you will have to create the user first (with no global privileges) and then go back and edit that user to add the table and privileges for the individual table.

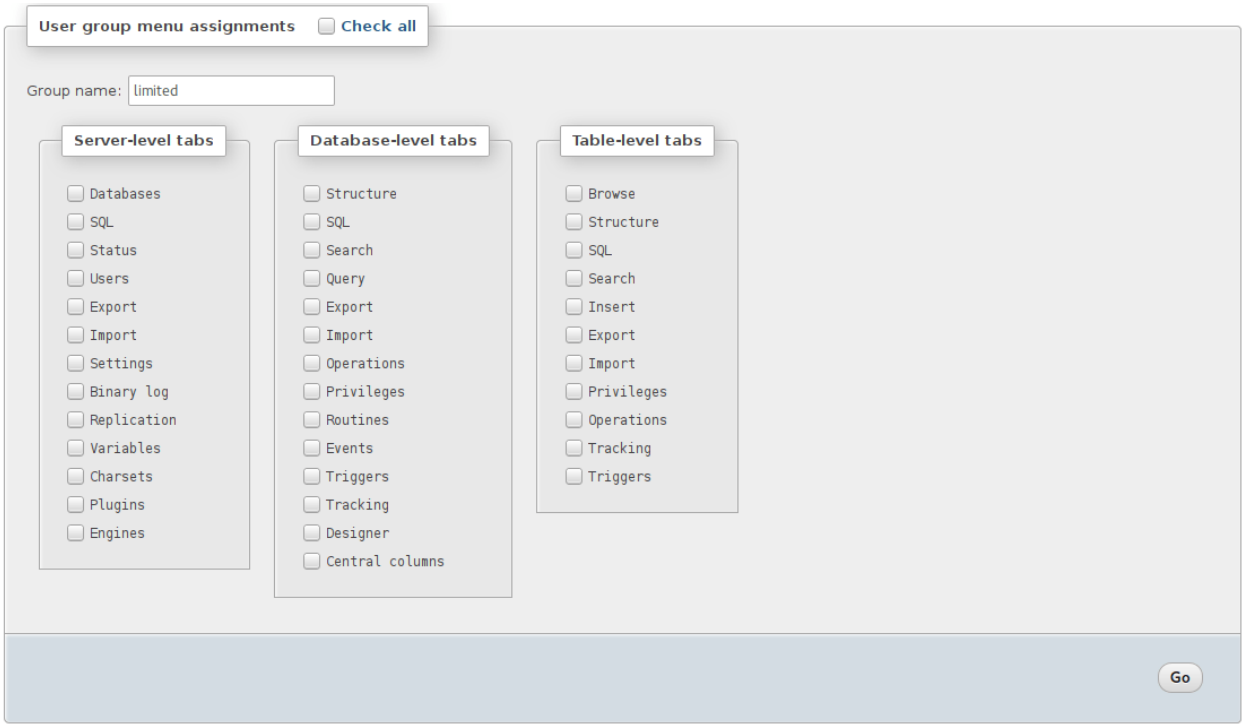
5.5.5 Configurable menus and user groups

By enabling `$cfg['Servers'][$i]['users']` and `$cfg['Servers'][$i]['usergroups']` you can customize what users will see in the phpMyAdmin navigation.

Warning

This feature only limits what a user sees, they are still able to use all the functions. So this can not be considered as a security limitation. Should you want to limit what users can do, use MySQL privileges to achieve that.

With this feature enabled, the *User accounts* management interface gains a second tab for managing *User groups*, where you can define what each group will view (see image below) and you can then assign each user to one of these groups. Users will be presented with a simplified user interface, which might be useful for inexperienced users who could be overwhelmed by all the features phpMyAdmin provides.



5.6 Relations

phpMyAdmin allows relationships (similar to foreign keys) using MySQL-native (InnoDB) methods when available and falling back on special phpMyAdmin-only features when needed. There are two ways of editing these relations, with the *relation view* and the drag-and-drop *designer* – both of which are explained on this page.

Note

You need to have configured the *phpMyAdmin configuration storage* for using phpMyAdmin only relations.

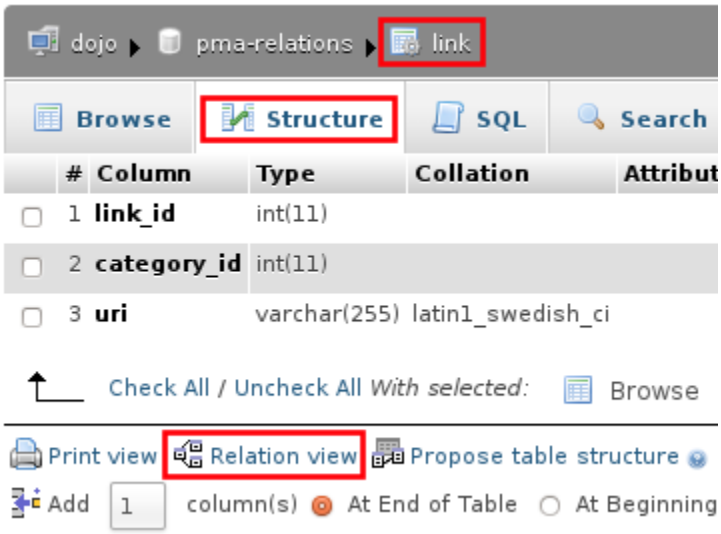
5.6.1 Technical info

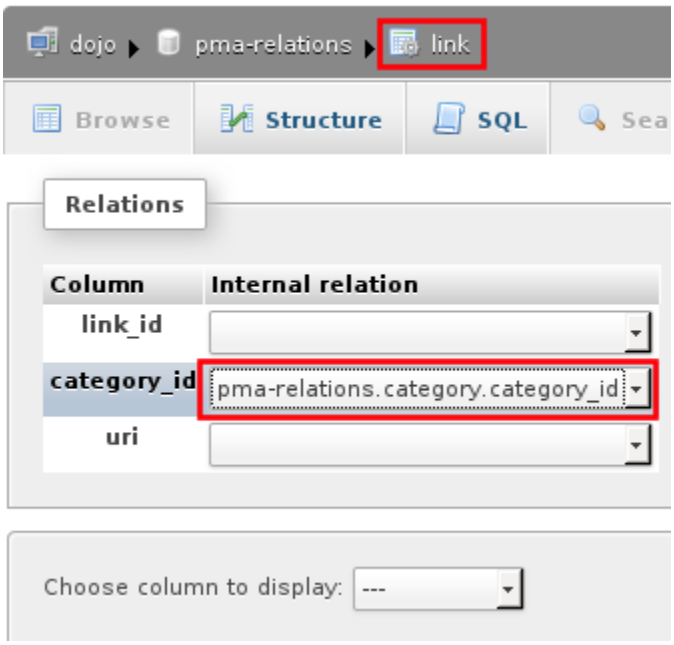
Currently the only MySQL table type that natively supports relationships is InnoDB. When using an InnoDB table, phpMyAdmin will create real InnoDB relations which will be enforced by MySQL no matter which application accesses the database. In the case of any other table type, phpMyAdmin enforces the relations internally and those relations are not applied to any other application.

5.6.2 Relation view

In order to get it working, you first have to properly create the [[pmadb|pmadb]]. Once that is setup, select a table's "Structure" page. Below the table definition, a link called "Relation view" is shown. If you click that link, a page will be shown that offers you to create a link to another table for any (most) fields. Only PRIMARY KEYS are shown there, so if the field you are referring to is not shown, you most likely are doing something wrong. The drop-down at the bottom is the field which will be used as the name for a record.

Relation view example



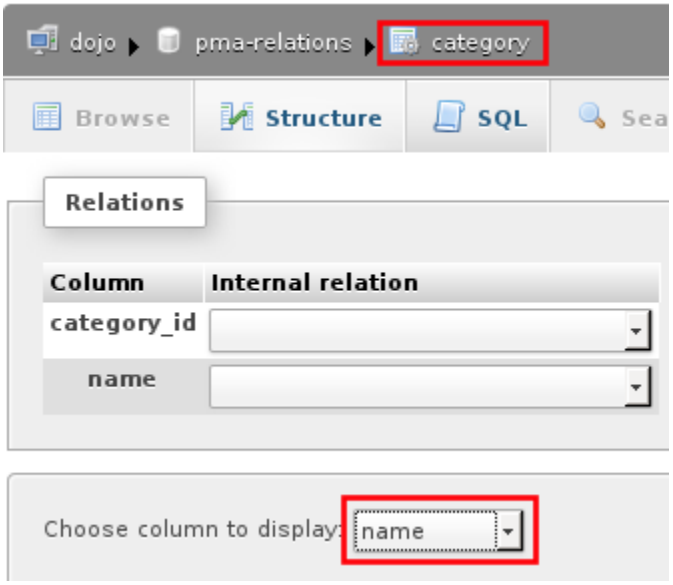


Let's say you have categories and links and one category can contain several links. Your table structure would be something like this:

- *category.category_id* (must be unique)
- *category.name*
- *link.link_id*
- *link.category_id*
- *link.uri*.

Open the relation view (below the table structure) page for the *link* table and for *category_id* field, you select *category.category_id* as master record.

If you now browse the link table, the *category_id* field will be a clickable hyperlink to the proper category record. But all you see is just the *category_id*, not the name of the category.



To fix this, open the relation view of the *category* table and in the drop down at the bottom, select "name". If you now browse the link table again and hover the mouse over the *category_id* hyperlink, the value from the related category will be shown as tooltip.



5.6.3 Designer

The Designer feature is a graphical way of creating, editing, and displaying phpMyAdmin relations. These relations are compatible with those created in phpMyAdmin's relation view.

To use this feature, you need a properly configured *phpMyAdmin configuration storage* and must have the *`$cfg['Servers'][$i]['table_coords']`* configured.

To use the designer, select a database's structure page, then look for the *Designer* tab.

To export the view into PDF, you have to create PDF pages first. The Designer creates the layout, how the tables shall be displayed. To finally export the view, you have to create this with a PDF page and select your layout, which you have created with the designer.

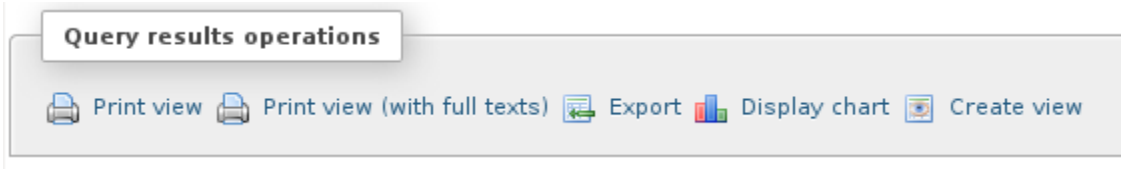
See also

6.8 How can I produce a PDF schema of my database?

5.7 Charts

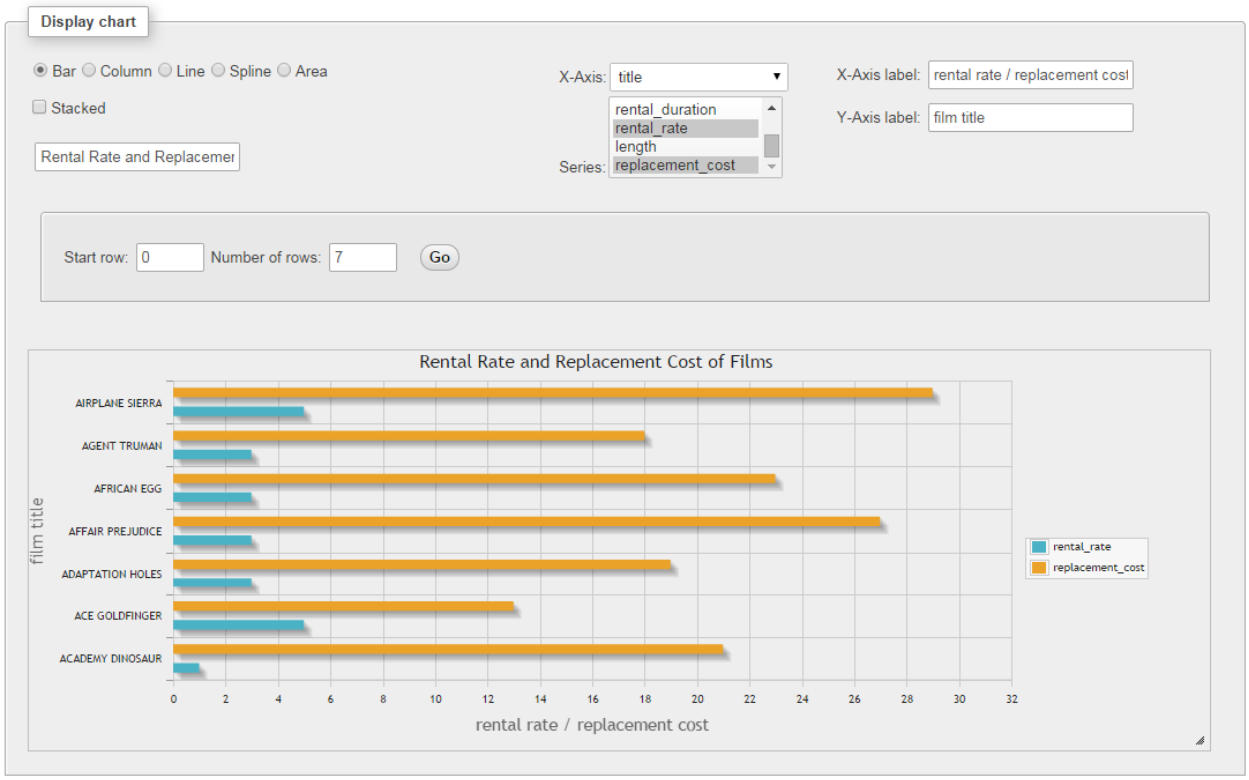
Added in version 3.4.0.

Since phpMyAdmin version 3.4.0, you can easily generate charts from a SQL query by clicking the "Display chart" link in the "Query results operations" area.



A window layer "Display chart" is shown in which you can customize the chart with the following options.

- Chart type: Allows you to choose the type of chart. Supported types are bar charts, column charts, line charts, spline charts, area charts, pie charts and timeline charts (only the chart types applicable for current series selection are offered).
- X-axis: Allows to choose the field for the main axis.
- Series: Allows to choose series for the chart. You can choose multiple series.
- Title: Allows specifying a title for the chart which is displayed above the chart.
- X-axis and Y-axis labels: Allows specifying labels for axes.
- Start row and a number of rows: Allows generating charts only for a specified number of rows of the results set.



5.7.1 Chart implementation

Charts in phpMyAdmin are drawn using jqPlot jQuery library.

5.7.2 Examples

Pie chart

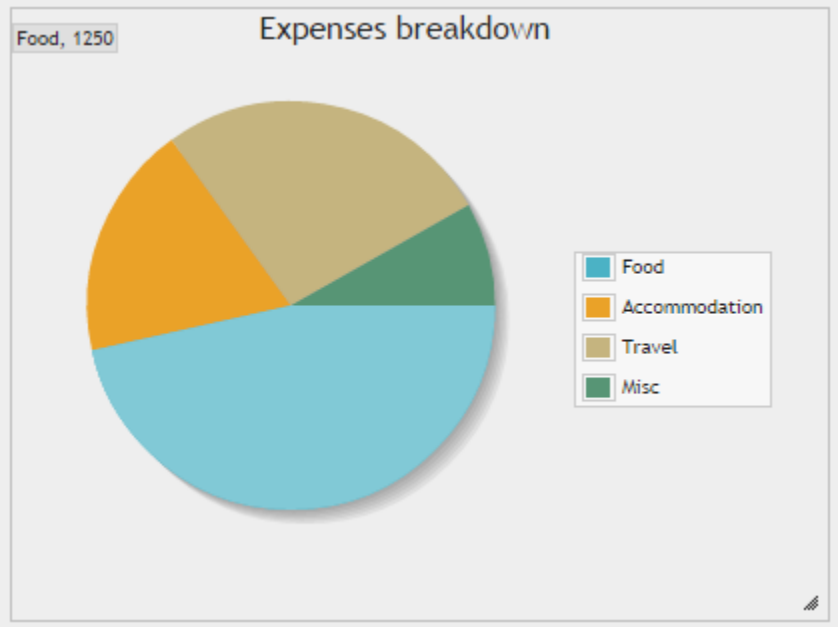
Query results for a simple pie chart can be generated with:

```
SELECT 'Food' AS 'expense',
   1250 AS 'amount' UNION
SELECT 'Accommodation', 500 UNION
SELECT 'Travel', 720 UNION
SELECT 'Misc', 220
```

And the result of this query is:

expense	amount
Food	1250
Accommodation	500
Travel	720
Misc	220

Choosing expense as the X-axis and amount in series:



Bar and column chart

Both bar charts and column chats support stacking. Upon selecting one of these types a checkbox is displayed to select stacking.

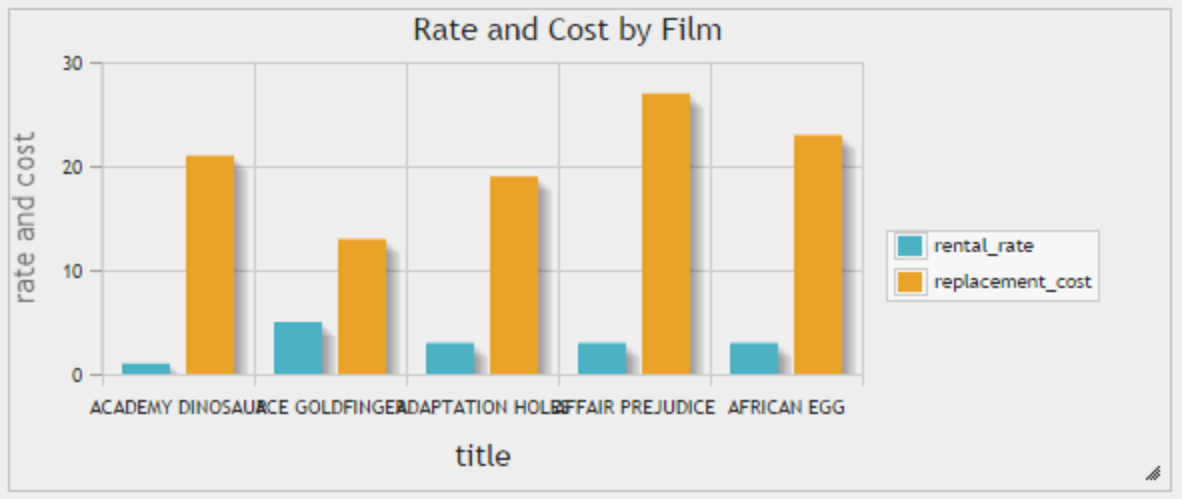
Query results for a simple bar or column chart can be generated with:

```
SELECT
   'ACADEMY DINOSAUR' AS 'title',
   0.99 AS 'rental_rate',
   20.99 AS 'replacement_cost' UNION
SELECT 'ACE GOLDFINGER', 4.99, 12.99 UNION
SELECT 'ADAPTATION HOLES', 2.99, 18.99 UNION
SELECT 'AFFAIR PREJUDICE', 2.99, 26.99 UNION
SELECT 'AFRICAN EGG', 2.99, 22.99
```

And the result of this query is:

title	rental_rate	replacement_cost
ACADEMY DINOSAUR	0.99	20.99
ACE GOLDFINGER	4.99	12.99
ADAPTATION HOLES	2.99	18.99
AFFAIR PREJUDICE	2.99	26.99
AFRICAN EGG	2.99	22.99

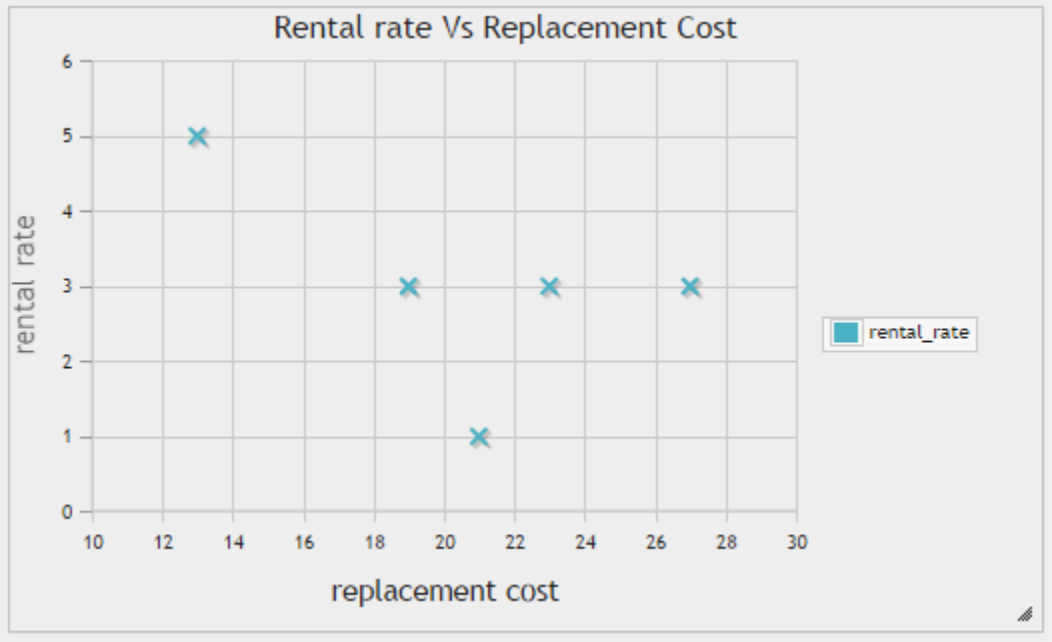
Choosing title as the X-axis and rental_rate and replacement_cost as series:



Scatter chart

Scatter charts are useful in identifying the movement of one or more variable(s) compared to another variable.

Using the same data set from bar and column charts section and choosing replacement_cost as the X-axis and rental_rate in series:



Line, spline and timeline charts

These charts can be used to illustrate trends in underlying data. Spline charts draw smooth lines while timeline charts draw X-axis taking the distances between the dates/time into consideration.

Query results for a simple line, spline or timeline chart can be generated with:

```
SELECT
   DATE('2006-01-08') AS 'date',
   2056 AS 'revenue',
```

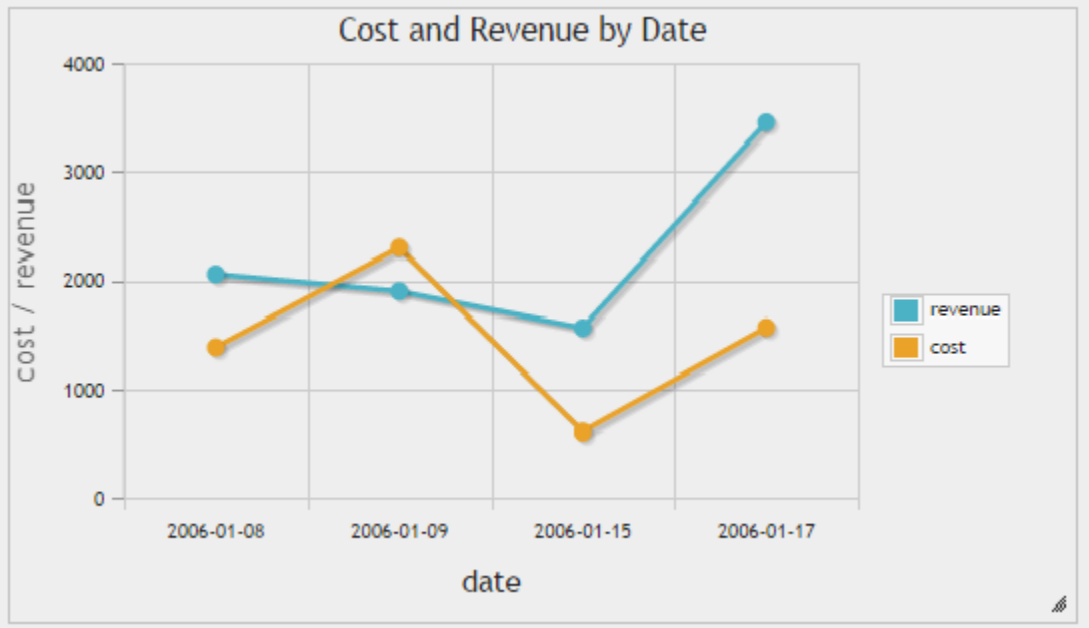
(continues on next page)

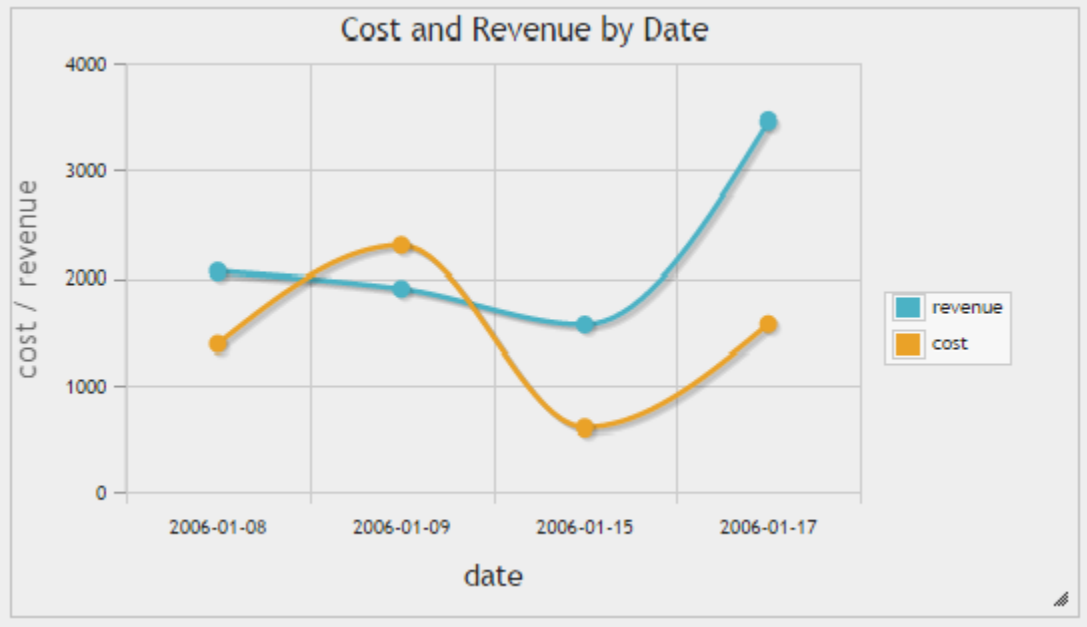
(continued from previous page)

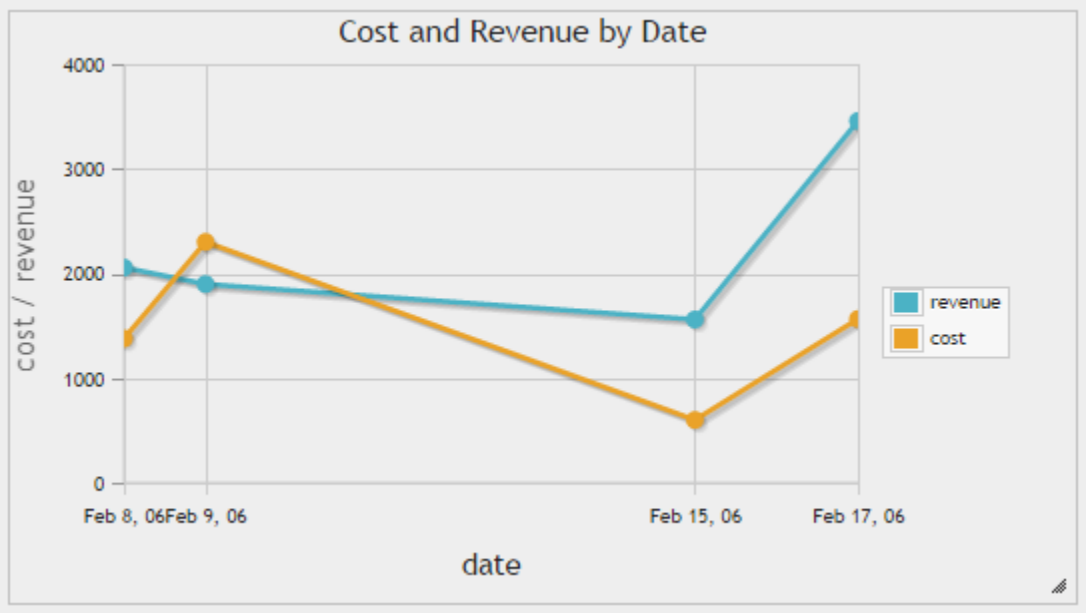
```
   1378 AS 'cost' UNION
SELECT DATE('2006-01-09'), 1898, 2301 UNION
SELECT DATE('2006-01-15'), 1560, 600 UNION
SELECT DATE('2006-01-17'), 3457, 1565
```

And the result of this query is:

date	revenue	cost
2016-01-08	2056	1378
2006-01-09	1898	2301
2006-01-15	1560	600
2006-01-17	3457	1565







5.8 Import and export

5.8.1 Import

To import data, go to the "Import" tab in phpMyAdmin. To import data into a specific database or table, open the database or table before going to the "Import" tab.

In addition to the standard Import and Export tab, you can also import an SQL file directly by dragging and dropping it from your local file manager to the phpMyAdmin interface in your web browser.

If you are having troubles importing big files, please consult *1.16 I cannot upload big dump files (memory, HTTP or timeout problems).*.

You can import using following methods:

Form based upload

Can be used with any supported format, also (b|g)zipped files, e.g., mydump.sql.gz .

Form based SQL Query

Can be used with valid SQL dumps.

Using upload directory

You can specify an upload directory on your web server where phpMyAdmin is installed, after uploading your file into this directory you can select this file in the import dialog of phpMyAdmin, see *$cfg['UploadDir']*.

phpMyAdmin can import from several various commonly used formats.

CSV

Comma separated values format which is often used by spreadsheets or various other programs for export/import.

Note

When importing data into a table from a CSV file where the table has an 'auto_increment' field, make the 'auto_increment' value for each record in the CSV field to be '0' (zero). This allows the 'auto_increment' field to populate correctly.

It is now possible to import a CSV file at the server or database level. Instead of having to create a table to import the CSV file into, a best-fit structure will be determined for you and the data imported into it, instead. All other features, requirements, and limitations are as before.

CSV using LOAD DATA

Similar to CSV, only using the internal MySQL parser and not the phpMyAdmin one.

ESRI Shape File

The ESRI shapefile or simply a shapefile is a popular geospatial vector data format for geographic information systems software. It is developed and regulated by Esri as a (mostly) open specification for data interoperability among Esri and other software products.

MediaWiki

MediaWiki files, which can be exported by phpMyAdmin (version 4.0 or later), can now also be imported. This is the format used by Wikipedia to display tables.

Open Document Spreadsheet (ODS)

OpenDocument workbooks containing one or more spreadsheets can now be directly imported.

When importing an ODS spreadsheet, the spreadsheet must be named in a specific way in order to make the import as simple as possible.

Table name

During import, phpMyAdmin uses the sheet name as the table name; you should rename the sheet in your spreadsheet program in order to match your existing table name (or the table you wish to create, though this is less of a concern since you could quickly rename the new table from the Operations tab).

Column names

You should also make the first row of your spreadsheet a header with the names of the columns (this can be accomplished by inserting a new row at the top of your spreadsheet). When on the Import screen, select the checkbox for "The first line of the file contains the table column names;" this way your newly imported data will go to the proper columns.

> **Note**
>
> Formulas and calculations will NOT be evaluated, rather, their value from the most recent save will be loaded. Please ensure that all values in the spreadsheet are as needed before importing it.

SQL

SQL can be used to make any manipulation on data, it is also useful for restoring backed up data.

XML

XML files exported by phpMyAdmin (version 3.3.0 or later) can now be imported. Structures (databases, tables, views, triggers, etc.) and/or data will be created depending on the contents of the file.

The supported xml schemas are not yet documented in this wiki.

5.8.2 Export

phpMyAdmin can export into text files (even compressed) on your local disk (or a special the webserver *$cfg['SaveDir']* folder) in various commonly used formats:

CodeGen

NHibernate file format. Planned versions: Java, Hibernate, PHP PDO, JSON, etc. So the preliminary name is codegen.

CSV

Comma separated values format which is often used by spreadsheets or various other programs for export/import.

CSV for Microsoft Excel

This is just preconfigured version of CSV export which can be imported into most English versions of Microsoft Excel. Some localised versions (like "Danish") are expecting ";" instead of "," as field separator.

Microsoft Word 2000

If you're using Microsoft Word 2000 or newer (or compatible such as OpenOffice.org), you can use this export.

JSON

JSON (JavaScript Object Notation) is a lightweight data-interchange format. It is easy for humans to read and write and it is easy for machines to parse and generate.

Changed in version 4.7.0: The generated JSON structure has been changed in phpMyAdmin 4.7.0 to produce valid JSON data.

The generated JSON is list of objects with following attributes:

type

Type of given object, can be one of:

header
Export header containing comment and phpMyAdmin version.

database
Start of a database marker, containing name of database.

table
Table data export.

version
Used in `header` *type* and indicates phpMyAdmin version.

comment
Optional textual comment.

name
Object name - either table or database based on *type*.

database
Database name for `table` *type*.

data
Table content for `table` *type*.

Sample output:

```
[
    {
        "comment": "Export to JSON plugin for phpMyAdmin",
        "type": "header",
        "version": "4.7.0-dev"
    },
    {
        "name": "cars",
        "type": "database"
    },
    {
        "data": [
            {
                "car_id": "1",
                "description": "Green Chrysler 300",
                "make_id": "5",
                "mileage": "113688",
                "price": "13545.00",
                "transmission": "automatic",
                "yearmade": "2007"
            }
        ],
        "database": "cars",
        "name": "cars",
        "type": "table"
    },
    {
        "data": [
            {
                "make": "Chrysler",
```

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```
                "make_id": "5"
            }
        ],
        "database": "cars",
        "name": "makes",
        "type": "table"
    }
]
```

LaTeX

If you want to embed table data or structure in LaTeX, this is right choice for you.

LaTeX is a typesetting system that is very suitable for producing scientific and mathematical documents of high typographical quality. It is also suitable for producing all sorts of other documents, from simple letters to complete books. LaTeX uses TeX as its formatting engine. Learn more about TeX and LaTeX on the Comprehensive TeX Archive Network also see the short description od TeX.

The output needs to be embedded into a LaTeX document before it can be rendered, for example in following document:

```
\documentclass{article}
\title{phpMyAdmin SQL output}
\author{}
\usepackage{longtable,lscape}
\date{}
\setlength{\parindent}{0pt}
\usepackage[left=2cm,top=2cm,right=2cm,nohead,nofoot]{geometry}
\pdfpagewidth 210mm
\pdfpageheight 297mm
\begin{document}
\maketitle

% insert phpMyAdmin LaTeX Dump here

\end{document}
```

MediaWiki

Both tables and databases can be exported in the MediaWiki format, which is used by Wikipedia to display tables. It can export structure, data or both, including table names or headers.

OpenDocument Spreadsheet

Open standard for spreadsheet data, which is being widely adopted. Many recent spreadsheet programs, such as LibreOffice, OpenOffice, Microsoft Office or Google Docs can handle this format.

OpenDocument Text

New standard for text data which is being widely adopted. Most recent word processors (such as LibreOffice, OpenOffice, Microsoft Word, AbiWord or KWord) can handle this.

PDF

For presentation purposes, non editable PDF might be best choice for you.

PHP Array

You can generate a php file which will declare a multidimensional array with the contents of the selected table or database.

SQL

Export in SQL can be used to restore your database, thus it is useful for backing up.

The option 'Maximal length of created query' seems to be undocumented. But experiments has shown that it splits large extended INSERTS so each one is no bigger than the given number of bytes (or characters?). Thus when importing the file, for large tables you avoid the error "Got a packet bigger than 'max_allowed_packet' bytes".

See also

https://dev.mysql.com/doc/refman/5.7/en/packet-too-large.html

Data Options

Complete inserts adds the column names to the SQL dump. This parameter improves the readability and reliability of the dump. Adding the column names increases the size of the dump, but when combined with Extended inserts it's negligible.

Extended inserts combines multiple rows of data into a single INSERT query. This will significantly decrease filesize for large SQL dumps, increases the INSERT speed when imported, and is generally recommended.

Texy!

Texy! markup format. You can see example on Texy! demo.

XML

Easily parsable export for use with custom scripts.

Changed in version 3.3.0: The XML schema used has changed as of version 3.3.0

YAML

YAML is a data serialization format which is both human readable and computationally powerful (<https://yaml.org>).

5.9 Custom Themes

phpMyAdmin comes with support for third party themes. You can download additional themes from our website at <https://www.phpmyadmin.net/themes/>.

5.9.1 Configuration

Themes are configured with *$cfg['ThemeManager']* and *$cfg['ThemeDefault']*. Under `./themes/`, you should not delete the directory `pmahomme` or its underlying structure, because this is the system theme used by phpMyAdmin. `pmahomme` contains all images and styles, for backwards compatibility and for all themes that would not include images

or css-files. If *$cfg['ThemeManager']* is enabled, you can select your favorite theme on the main page. Your selected theme will be stored in a cookie.

5.9.2 Creating custom theme

To create a theme:

- make a new subdirectory (for example "your_theme_name") under `./themes/`.
- copy the files and directories from `pmahomme` to "your_theme_name"
- edit the css-files in "your_theme_name/css"
- put your new images in "your_theme_name/img"
- edit `_variables.scss` in "your_theme_name/scss"
- edit `theme.json` in "your_theme_name" to contain theme metadata (see below)
- make a new screenshot of your theme and save it under "your_theme_name/screen.png"

Theme metadata

Changed in version 4.8.0: Before 4.8.0 the theme metadata was passed in the `info.inc.php` file. It has been replaced by `theme.json` to allow easier parsing (without need to handle PHP code) and to support additional features.

In theme directory there is file `theme.json` which contains theme metadata. Currently it consists of:

name

Display name of the theme.

This field is required.

version

Theme version, can be quite arbitrary and does not have to match phpMyAdmin version.

This field is required.

description

Theme description. this will be shown on the website.

This field is required.

author

Theme author name.

This field is required.

url

Link to theme author website. It's good idea to have way for getting support there.

supports

Array of supported phpMyAdmin major versions.

This field is required.

For example, the definition for Original theme shipped with phpMyAdmin 4.8:

```
{
    "name": "Original",
    "version": "4.8",
    "description": "Original phpMyAdmin theme",
```

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```
    "author": "phpMyAdmin developers",
    "url": "https://www.phpmyadmin.net/",
    "supports": ["4.8"]
}
```

Sharing images

If you do not want to use your own symbols and buttons, remove the directory "img" in "your_theme_name". phpMyAdmin will use the default icons and buttons (from the system-theme `pmahomme`).

5.10 Other sources of information

5.10.1 Printed Book

The definitive guide to using phpMyAdmin is the book Mastering phpMyAdmin for Effective MySQL Management by Marc Delisle. You can get information on that book and other officially endorsed books at the phpMyAdmin site.

5.10.2 Tutorials

Third party tutorials and articles which you might find interesting:

Česky (Czech)

- Seriál o phpMyAdminovi

English

- Having fun with phpMyAdmin's MIME-transformations & PDF-features
- Learning SQL Using phpMyAdmin (old tutorial)

(Russian)

- Russian server about phpMyAdmin

CHAPTER

SIX

FAQ - FREQUENTLY ASKED QUESTIONS

Please have a look at our Link section on the official phpMyAdmin homepage for in-depth coverage of phpMyAdmin's features and or interface.

6.1 Server

6.1.1 1.1 My server is crashing each time a specific action is required or phpMyAdmin sends a blank page or a page full of cryptic characters to my browser, what can I do?

Try to set the *$cfg['OBGzip']* directive to `false` in your `config.inc.php` file and the `zlib.output_compression` directive to `Off` in your php configuration file.

6.1.2 1.2 My Apache server crashes when using phpMyAdmin.

You should first try the latest versions of Apache (and possibly MySQL). If your server keeps crashing, please ask for help in the various Apache support groups.

See also

1.1 My server is crashing each time a specific action is required or phpMyAdmin sends a blank page or a page full of cryptic characters to my browser, what can I do?

6.1.3 1.3 (withdrawn).

6.1.4 1.4 Using phpMyAdmin on IIS, I'm displayed the error message: "The specified CGI application misbehaved by not returning a complete set of HTTP headers . . . ".

You just forgot to read the *install.txt* file from the PHP distribution. Have a look at the last message in this PHP bug report #12061 from the official PHP bug database.

6.1.5 1.5 Using phpMyAdmin on IIS, I'm facing crashes and/or many error messages with the HTTP.

This is a known problem with the PHP *ISAPI* filter: it's not so stable. Please use instead the cookie authentication mode.

6.1.6 1.6 I can't use phpMyAdmin on PWS: nothing is displayed!

This seems to be a PWS bug. Filippo Simoncini found a workaround (at this time there is no better fix): remove or comment the `DOCTYPE` declarations (2 lines) from the scripts `libraries/classes/Header.php` and `index.php`.

6.1.7 1.7 How can I gzip a dump or a CSV export? It does not seem to work.

This feature is based on the `gzencode()` PHP function to be more independent of the platform (Unix/Windows, Safe Mode or not, and so on). So, you must have Zlib support (`--with-zlib`).

6.1.8 1.8 I cannot insert a text file in a table, and I get an error about safe mode being in effect.

Your uploaded file is saved by PHP in the "upload dir", as defined in `php.ini` by the variable `upload_tmp_dir` (usually the system default is */tmp*). We recommend the following setup for Apache servers running in safe mode, to enable uploads of files while being reasonably secure:

- create a separate directory for uploads: **`mkdir /tmp/php`**
- give ownership to the Apache server's user.group: **`chown apache.apache /tmp/php`**
- give proper permission: **`chmod 600 /tmp/php`**
- put `upload_tmp_dir = /tmp/php` in `php.ini`
- restart Apache

6.1.9 1.9 (withdrawn).

6.1.10 1.10 I'm having troubles when uploading files with phpMyAdmin running on a secure server. My browser is Internet Explorer and I'm using the Apache server.

As suggested by "Rob M" in the phpWizard forum, add this line to your *httpd.conf*:

```
SetEnvIf User-Agent ".*MSIE.*" nokeepalive ssl-unclean-shutdown
```

It seems to clear up many problems between Internet Explorer and SSL.

6.1.11 1.11 I get an 'open_basedir restriction' while uploading a file from the import tab.

Since version 2.2.4, phpMyAdmin supports servers with open_basedir restrictions. However you need to create temporary directory and configure it as *`$cfg['TempDir']`*. The uploaded files will be moved there, and after execution of your *SQL* commands, removed.

6.1.12 1.12 I have lost my MySQL root password, what can I do?

phpMyAdmin does authenticate against MySQL server you're using, so to recover from phpMyAdmin password loss, you need to recover at MySQL level.

The MySQL manual explains how to reset the permissions.

If you are using MySQL server installed by your hosting provider, please contact their support to recover the password for you.

6.1.13 1.13 (withdrawn).

6.1.14 1.14 (withdrawn).

6.1.15 1.15 I have problems with *mysql.user* column names.

In previous MySQL versions, the `User` and `Password` columns were named `user` and `password`. Please modify your column names to align with current standards.

6.1.16 1.16 I cannot upload big dump files (memory, HTTP or timeout problems).

Starting with version 2.7.0, the import engine has been re–written and these problems should not occur. If possible, upgrade your phpMyAdmin to the latest version to take advantage of the new import features.

The first things to check (or ask your host provider to check) are the values of `max_execution_time`, `upload_max_filesize`, `memory_limit` and `post_max_size` in the `php.ini` configuration file. All of these settings limit the maximum size of data that can be submitted and handled by PHP. Please note that `post_max_size` needs to be larger than `upload_max_filesize`. There exist several workarounds if your upload is too big or your hosting provider is unwilling to change the settings:

- Look at the *`$cfg['UploadDir']`* feature. This allows one to upload a file to the server via scp, FTP, or your favorite file transfer method. PhpMyAdmin is then able to import the files from the temporary directory. More information is available in the *Configuration* of this document.
- Using a utility (such as BigDump) to split the files before uploading. We cannot support this or any third party applications, but are aware of users having success with it.
- If you have shell (command line) access, use MySQL to import the files directly. You can do this by issuing the "source" command from within MySQL:

```
source filename.sql;
```

6.1.17 1.17 Which Database versions does phpMyAdmin support?

For MySQL, versions 5.5 and newer are supported. For older MySQL versions, our Downloads page offers older phpMyAdmin versions (which may have become unsupported).

For MariaDB, versions 5.5 and newer are supported.

6.1.18 1.17a I cannot connect to the MySQL server. It always returns the error message, "Client does not support authentication protocol requested by server; consider upgrading MySQL client"

You tried to access MySQL with an old MySQL client library. The version of your MySQL client library can be checked in your phpinfo() output. In general, it should have at least the same minor version as your server - as mentioned in *1.17 Which Database versions does phpMyAdmin support?*. This problem is generally caused by using MySQL version 4.1 or newer. MySQL changed the authentication hash and your PHP is trying to use the old method. The proper solution is to use the mysqli extension with the proper client library to match your MySQL installation. More information (and several workarounds) are located in the MySQL Documentation.

6.1.19 1.18 (withdrawn).

6.1.20 1.19 I can't run the "display relations" feature because the script seems not to know the font face I'm using!

The *TCPDF* library we're using for this feature requires some special files to use font faces. Please refers to the TCPDF manual to build these files.

6.1.21 1.20 I receive an error about missing mysqli and mysql extensions.

To connect to a MySQL server, PHP needs a set of MySQL functions called "MySQL extension". This extension may be part of the PHP distribution (compiled-in), otherwise it needs to be loaded dynamically. Its name is probably *mysqli.so* or *php_mysqli.dll*. phpMyAdmin tried to load the extension but failed. Usually, the problem is solved by installing a software package called "PHP-MySQL" or something similar.

There was two interfaces PHP provided as MySQL extensions - `mysql` and `mysqli`. The `mysql` interface was removed in PHP 7.0.

This problem can be also caused by wrong paths in the `php.ini` or using wrong `php.ini`.

Make sure that the extension files do exist in the folder which the `extension_dir` points to and that the corresponding lines in your `php.ini` are not commented out (you can use `phpinfo()` to check current setup):

```
[PHP]

; Directory in which the loadable extensions (modules) reside.
extension_dir = "C:/Apache2/modules/php/ext"
```

The `php.ini` can be loaded from several locations (especially on Windows), so please check you're updating the correct one. If using Apache, you can tell it to use specific path for this file using `PHPIniDir` directive:

```
LoadModule php7_module "C:/php7/php7apache2_4.dll"
<IfModule php7_module>
    PHPIniDir "C:/php7"
    <Location>
       AddType text/html .php
       AddHandler application/x-httpd-php .php
    </Location>
</IfModule>
```

In some rare cases this problem can be also caused by other extensions loaded in PHP which prevent MySQL extensions to be loaded. If anything else fails, you can try commenting out extensions for other databases from `php.ini`.

6.1.22 1.21 I am running the CGI version of PHP under Unix, and I cannot log in using cookie auth.

In `php.ini`, set `mysql.max_links` higher than 1.

6.1.23 1.22 I don't see the "Location of text file" field, so I cannot upload.

This is most likely because in `php.ini`, your `file_uploads` parameter is not set to "on".

6.1.24 1.23 I'm running MySQL on a Win32 machine. Each time I create a new table the table and column names are changed to lowercase!

This happens because the MySQL directive `lower_case_table_names` defaults to 1 (`ON`) in the Win32 version of MySQL. You can change this behavior by simply changing the directive to 0 (`OFF`): Just edit your `my.ini` file that should be located in your Windows directory and add the following line to the group [mysqld]:

```
set-variable = lower_case_table_names=0
```

Note

Forcing this variable to 0 with –lower-case-table-names=0 on a case-insensitive filesystem and access MyISAM tablenames using different lettercases, index corruption may result.

Next, save the file and restart the MySQL service. You can always check the value of this directive using the query

```
SHOW VARIABLES LIKE 'lower_case_table_names';
```

See also

Identifier Case Sensitivity in the MySQL Reference Manual

6.1.25 1.24 (withdrawn).

6.1.26 1.25 I am running Apache with mod_gzip-1.3.26.1a on Windows XP, and I get problems, such as undefined variables when I run a SQL query.

A tip from Jose Fandos: put a comment on the following two lines in httpd.conf, like this:

```
# mod_gzip_item_include file \.php$
# mod_gzip_item_include mime "application/x-httpd-php.*"
```

as this version of mod_gzip on Apache (Windows) has problems handling PHP scripts. Of course you have to restart Apache.

6.1.27 1.26 I just installed phpMyAdmin in my document root of IIS but I get the error “No input file specified” when trying to run phpMyAdmin.

This is a permission problem. Right-click on the phpmyadmin folder and choose properties. Under the tab Security, click on “Add” and select the user “IUSR_machine” from the list. Now set their permissions and it should work.

6.1.28 1.27 I get empty page when I want to view huge page (eg. db_structure.php with plenty of tables).

This was caused by a PHP bug that occur when GZIP output buffering is enabled. If you turn off it (by *$cfg['OBGzip']* in `config.inc.php`), it should work. This bug will has been fixed in PHP 5.0.0.

6.1.29 1.28 My MySQL server sometimes refuses queries and returns the message ‘Errorcode: 13’. What does this mean?

This can happen due to a MySQL bug when having database / table names with upper case characters although `lower_case_table_names` is set to 1. To fix this, turn off this directive, convert all database and table names to lower case and turn it on again. Alternatively, there’s a bug-fix available starting with MySQL 3.23.56 / 4.0.11-gamma.

6.1.30 1.29 When I create a table or modify a column, I get an error and the columns are duplicated.

It is possible to configure Apache in such a way that PHP has problems interpreting .php files.

The problems occur when two different (and conflicting) set of directives are used:

```
SetOutputFilter PHP
SetInputFilter PHP
```

and

```
AddType application/x-httpd-php .php
```

In the case we saw, one set of directives was in `/etc/httpd/conf/httpd.conf`, while the other set was in `/etc/httpd/conf/addon-modules/php.conf`. The recommended way is with `AddType`, so just comment out the first set of lines and restart Apache:

```
#SetOutputFilter PHP
#SetInputFilter PHP
```

6.1.31 1.30 I get the error "navigation.php: Missing hash".

This problem is known to happen when the server is running Turck MMCache but upgrading MMCache to version 2.3.21 solves the problem.

6.1.32 1.31 Which PHP versions does phpMyAdmin support?

Since release 4.5, phpMyAdmin supports only PHP 5.5 and newer. Since release 4.1 phpMyAdmin supports only PHP 5.3 and newer. For PHP 5.2 you can use 4.0.x releases.

PHP 7 is supported since phpMyAdmin 4.6, PHP 7.1 is supported since 4.6.5, PHP 7.2 is supported since 4.7.4.

HHVM is supported up to phpMyAdmin 4.8.

Since release 5.0, phpMyAdmin supports only PHP 7.1 and newer. Since release 5.2, phpMyAdmin supports only PHP 7.2 and newer.

6.1.33 1.32 Can I use HTTP authentication with IIS?

Yes. This procedure was tested with phpMyAdmin 2.6.1, PHP 4.3.9 in *ISAPI* mode under *IIS* 5.1.

1. In your `php.ini` file, set `cgi.rfc2616_headers = 0`
2. In `Web Site Properties -> File/Directory Security -> Anonymous Access` dialog box, check the `Anonymous access` checkbox and uncheck any other checkboxes (i.e. uncheck `Basic authentication`, `Integrated Windows authentication`, and `Digest` if it's enabled.) Click `OK`.
3. In `Custom Errors`, select the range of `401;1` through `401;5` and click the `Set to Default` button.

See also

RFC 2616

6.1.34 1.33 (withdrawn).

6.1.35 1.34 Can I directly access a database or table pages?

Yes. Out of the box, you can use a *URL* like `http://server/phpMyAdmin/index.php?server=X&db=database&table=table&target=script`. For `server` you can use the server number which refers to the numeric host index (from `$i`) in `config.inc.php`. The table and script parts are optional.

If you want a URL like `http://server/phpMyAdmin/database[/table][/script]`, you need to do some additional configuration. The following lines apply only for the Apache web server. First, make sure that you have

enabled some features within the Apache global configuration. You need `Options SymLinksIfOwnerMatch` and `AllowOverride FileInfo` enabled for directory where phpMyAdmin is installed and you need mod_rewrite to be enabled. Then you just need to create the following *.htaccess* file in root folder of phpMyAdmin installation (don't forget to change directory name inside of it):

```
RewriteEngine On
RewriteBase /path_to_phpMyAdmin
RewriteRule ^([a-zA-Z0-9_]+)/([a-zA-Z0-9_]+)/([a-z_]+\.php)$ index.php?db=$1&table=$2&
↪target=$3 [R]
RewriteRule ^([a-zA-Z0-9_]+)/([a-z_]+\.php)$ index.php?db=$1&target=$2 [R]
RewriteRule ^([a-zA-Z0-9_]+)/([a-zA-Z0-9_]+)$ index.php?db=$1&table=$2 [R]
RewriteRule ^([a-zA-Z0-9_]+)$ index.php?db=$1 [R]
```

See also

4.8 Which parameters can I use in the URL that starts phpMyAdmin?

Changed in version 5.1.0: Support for using the `target` parameter was removed in phpMyAdmin 5.1.0. Use the `route` parameter instead.

6.1.36 1.35 Can I use HTTP authentication with Apache CGI?

Yes. However you need to pass authentication variable to *CGI* using following rewrite rule:

```
RewriteEngine On
RewriteRule .* - [E=REMOTE_USER:%{HTTP:Authorization},L]
```

6.1.37 1.36 I get an error "500 Internal Server Error".

There can be many explanations to this and a look at your server's error log file might give a clue.

6.1.38 1.37 I run phpMyAdmin on cluster of different machines and password encryption in cookie auth doesn't work.

If your cluster consist of different architectures, PHP code used for encryption/decryption won't work correctly. This is caused by use of pack/unpack functions in code. Only solution is to use openssl extension which works fine in this case.

6.1.39 1.38 Can I use phpMyAdmin on a server on which Suhosin is enabled?

Yes but the default configuration values of Suhosin are known to cause problems with some operations, for example editing a table with many columns and no *primary key* or with textual *primary key*.

Suhosin configuration might lead to malfunction in some cases and it can not be fully avoided as phpMyAdmin is kind of application which needs to transfer big amounts of columns in single HTTP request, what is something what Suhosin tries to prevent. Generally all `suhosin.request.*`, `suhosin.post.*` and `suhosin.get.*` directives can have negative effect on phpMyAdmin usability. You can always find in your error logs which limit did cause dropping of variable, so you can diagnose the problem and adjust matching configuration variable.

The default values for most Suhosin configuration options will work in most scenarios, however you might want to adjust at least following parameters:

- suhosin.request.max_vars should be increased (eg. 2048)
- suhosin.post.max_vars should be increased (eg. 2048)

- suhosin.request.max_array_index_length should be increased (eg. 256)
- suhosin.post.max_array_index_length should be increased (eg. 256)
- suhosin.request.max_totalname_length should be increased (eg. 8192)
- suhosin.post.max_totalname_length should be increased (eg. 8192)
- suhosin.get.max_value_length should be increased (eg. 1024)
- suhosin.sql.bailout_on_error needs to be disabled (the default)
- suhosin.log.* should not include *SQL*, otherwise you get big slowdown
- suhosin.sql.union must be disabled (which is the default).
- suhosin.sql.multiselect must be disabled (which is the default).
- suhosin.sql.comment must be disabled (which is the default).

To further improve security, we also recommend these modifications:

- suhosin.executor.include.max_traversal should be enabled as a mitigation against local file inclusion attacks. We suggest setting this to 2 as `../` is used with the ReCaptcha library.
- suhosin.cookie.encrypt should be enabled.
- suhosin.executor.disable_emodifier should be enabled.

You can also disable the warning using the *`$cfg['SuhosinDisableWarning']`*.

6.1.40 1.39 When I try to connect via https, I can log in, but then my connection is redirected back to http. What can cause this behavior?

This is caused by the fact that PHP scripts have no knowledge that the site is using https. Depending on used webserver, you should configure it to let PHP know about URL and scheme used to access it.

For example in Apache ensure that you have enabled `SSLOptions` and `StdEnvVars` in the configuration.

See also

<https://httpd.apache.org/docs/2.4/mod/mod_ssl.html>

6.1.41 1.40 When accessing phpMyAdmin via an Apache reverse proxy, cookie login does not work.

To be able to use cookie auth Apache must know that it has to rewrite the set-cookie headers. Example from the Apache 2.2 documentation:

```
ProxyPass /mirror/foo/ http://backend.example.com/
ProxyPassReverse /mirror/foo/ http://backend.example.com/
ProxyPassReverseCookieDomain backend.example.com public.example.com
ProxyPassReverseCookiePath / /mirror/foo/
```

Note: if the backend url looks like `http://server/~user/phpmyadmin`, the tilde (~) must be url encoded as %7E in the ProxyPassReverse* lines. This is not specific to phpmyadmin, it's just the behavior of Apache.

```
ProxyPass /mirror/foo/ http://backend.example.com/~user/phpmyadmin
ProxyPassReverse /mirror/foo/ http://backend.example.com/%7Euser/phpmyadmin
ProxyPassReverseCookiePath /%7Euser/phpmyadmin /mirror/foo
```

See also

<https://httpd.apache.org/docs/2.2/mod/mod_proxy.html>, *$cfg['PmaAbsoluteUri']*

6.1.42 1.41 When I view a database and ask to see its privileges, I get an error about an unknown column.

The MySQL server's privilege tables are not up to date, you need to run the **mysql_upgrade** command on the server.

6.1.43 1.42 How can I prevent robots from accessing phpMyAdmin?

You can add various rules to *.htaccess* to filter access based on user agent field. This is quite easy to circumvent, but could prevent at least some robots accessing your installation.

```
RewriteEngine on

# Allow only GET and POST verbs
RewriteCond %{REQUEST_METHOD} !^(GET|POST)$ [NC,OR]

# Ban Typical Vulnerability Scanners and others
# Kick out Script Kiddies
RewriteCond %{HTTP_USER_AGENT} ^(java|curl|wget).* [NC,OR]
RewriteCond %{HTTP_USER_AGENT} ^.*(libwww-
↪perl|curl|wget|python|nikto|wkito|pikto|scan|acunetix).* [NC,OR]
RewriteCond %{HTTP_USER_AGENT} ^.
↪*(winhttp|HTTrack|clshttp|archiver|loader|email|harvest|extract|grab|miner).* [NC,OR]

# Ban Search Engines, Crawlers to your administrative panel
# No reasons to access from bots
# Ultimately Better than the useless robots.txt
# Did google respect robots.txt?
# Try google: intitle:phpMyAdmin intext:"Welcome to phpMyAdmin *.*.*" intext:"Log in" -
↪wiki -forum -forums -questions intext:"Cookies must be enabled"
RewriteCond %{HTTP_USER_AGENT} ^.*(AdsBot-Google|ia_archiver|Scooter|Ask.
↪Jeeves|Baiduspider|Exabot|FAST.Enterprise.Crawler|FAST-WebCrawler|www\.neomo\.
↪de|Gigabot|Mediapartners-Google|Google.Desktop|Feedfetcher-Google|Googlebot|heise-IT-
↪Markt-Crawler|heritrix|ibm.com\cs/crawler|ICCrawler|ichiro|MJ12bot|MetagerBot|msnbot-
↪NewsBlogs|msnbot|msnbot-media|NG-Search|lucene.apache.org|NutchCVS|OmniExplorer_
↪Bot|online.link.validator|psbot0|Seekbot|Sensis.Web.Crawler|SEO.search.Crawler|Seoma.\
↪[SEO.Crawler\]|SEOsearch|Snappy|www.urltrends.com|www.tkl.iis.u-tokyo.ac.jp/~
↪crawler|SynooBot|crawleradmin.t-info@telekom.de|TurnitinBot|voyager|W3.SiteSearch.
↪Crawler|W3C-checklink|W3C_Validator|www.WISEnutbot.com|yacybot|Yahoo-MMCrawler|Yahoo\!.
↪DE.Slurp|Yahoo\!.Slurp|YahooSeeker).* [NC]
RewriteRule .* - [F]
```

6.1.44 1.43 Why can't I display the structure of my table containing hundreds of columns?

Because your PHP's `memory_limit` is too low; adjust it in `php.ini`.

6.1.45 1.44 How can I reduce the installed size of phpMyAdmin on disk?

Some users have requested to be able to reduce the size of the phpMyAdmin installation. This is not recommended and could lead to confusion over missing features, but can be done. A list of files and corresponding functionality which degrade gracefully when removed include:

- `./locale/` folder, or unused subfolders (interface translations)
- Any unused themes in `./themes/` except the default theme *pmahomme*.
- `./libraries/language_stats.inc.php` (translation statistics)
- `./doc/` (documentation)
- `./setup/` (setup script)
- `./examples/` (configuration examples)
- `./sql/` (SQL scripts to configure advanced functionalities)
- `./js/src/` (Source files to re-build *./js/dist/*)
- `./js/config/` (Configuration files to re-build *./js/dist/*)
- Run *rm -rv vendor/tecnickcom/tcpdf && composer dump-autoload –no-interaction –optimize –dev* (exporting to PDF)
- Run *rm -rv vendor/williamdes/mariadb-mysql-kbs && composer dump-autoload –no-interaction –optimize –dev* (external links to MariaDB and MySQL documentations)
- Run *rm -rv vendor/code-lts/u2f-php-server && composer dump-autoload –no-interaction –optimize –dev* (U2F second factor authentication)
- Run *rm -rv vendor/pragmarx/* && composer dump-autoload –no-interaction –optimize –dev* (2FA second factor authentication)
- Run *rm -rv vendor/bacon/bacon-qr-code && composer dump-autoload –no-interaction –optimize –dev* (QRcode generation for 2FA second factor authentication)

6.1.46 1.45 I get an error message about unknown authentication method caching_sha2_password when trying to log in

When logging in using MySQL version 8 or newer, you may encounter an error message like this:

> mysqli_real_connect(): The server requested authentication method unknown to the client [caching_sha2_password]
>
> mysqli_real_connect(): (HY000/2054): The server requested authentication method unknown to the client

This error is because of a version compatibility problem between PHP and MySQL. The MySQL project introduced a new authentication method (our tests show this began with version 8.0.11) however PHP did not include the ability to use that authentication method. PHP reports that this was fixed in PHP version 7.4.

Users experiencing this are encouraged to upgrade their PHP installation, however a workaround exists. Your MySQL user account can be set to use the older authentication with a command such as

```
ALTER USER 'root'@'localhost' IDENTIFIED WITH mysql_native_password BY 'PASSWORD';
```

See also

<https://github.com/phpmyadmin/phpmyadmin/issues/14220>, <https://stackoverflow.com/questions/49948350/phpmyadmin-on-mysql-8-0>, <https://bugs.php.net/bug.php?id=76243>

6.1.47 1.46 Missing `HTTP_HOST` variable when using nginx with HTTP/3

When using phpMyAdmin with nginx and HTTP/3 enabled, the `HTTP_HOST` variable may be missing due to a known issue with nginx's HTTP/3 implementation, which can cause several issues:

- Two-factor authentication won't work
- Exported settings have no hostname in the filename (e.g., `phpMyAdmin-config-.json`)
- The hostname is missing from the page title (empty `@HTTP_HOST@`)

To fix this issue, add the following line to your nginx configuration:

```
fastcgi_param HTTP_HOST $host;
```

This line should be placed in the server block of your nginx configuration where the PHP-FPM settings are defined.

See also

<https://github.com/php/php-src/issues/13021>, <https://github.com/nginx/nginx/issues/455>, <https://trac.nginx.org/nginx/ticket/2281>, <https://mailman.nginx.org/pipermail/nginx-devel/2024-January/3CQEHII5QU2BTQ7L7DAVCBWK3OQS3GU6.html>

6.2 Configuration

6.2.1 2.1 The error message "Warning: Cannot add header information - headers already sent by ..." is displayed, what's the problem?

Edit your `config.inc.php` file and ensure there is nothing (I.E. no blank lines, no spaces, no characters...) neither before the <?php tag at the beginning, neither after the ?> tag at the end.

6.2.2 2.2 phpMyAdmin can't connect to MySQL. What's wrong?

Either there is an error with your PHP setup or your username/password is wrong. Try to make a small script which uses mysql_connect and see if it works. If it doesn't, it may be you haven't even compiled MySQL support into PHP.

6.2.3 2.3 The error message "Warning: MySQL Connection Failed: Can't connect to local MySQL server through socket '/tmp/mysql.sock' (111) ..." is displayed. What can I do?

The error message can also be: *Error #2002 - The server is not responding (or the local MySQL server's socket is not correctly configured)*.

First, you need to determine what socket is being used by MySQL. To do this, connect to your server and go to the MySQL bin directory. In this directory there should be a file named *mysqladmin*. Type `./mysqladmin variables`, and this should give you a bunch of info about your MySQL server, including the socket (*/tmp/mysql.sock*, for example). You can also ask your ISP for the connection info or, if you're hosting your own, connect from the 'mysql' command-line client and type 'status' to get the connection type and socket or port number.

Then, you need to tell PHP to use this socket. You can do this for all PHP in the `php.ini` or for phpMyAdmin only in the `config.inc.php`. For example: *`$cfg['Servers'][$i]['socket']`* Please also make sure that the permissions of this file allow to be readable by your webserver.

On my RedHat-Box the socket of MySQL is */var/lib/mysql/mysql.sock*. In your `php.ini` you will find a line

```
mysql.default_socket = /tmp/mysql.sock
```

change it to

```
mysql.default_socket = /var/lib/mysql/mysql.sock
```

Then restart apache and it will work.

Have also a look at the corresponding section of the MySQL documentation.

6.2.4 2.4 Nothing is displayed by my browser when I try to run phpMyAdmin, what can I do?

Try to set the *$cfg['OBGzip']* directive to `false` in the phpMyAdmin configuration file. It helps sometime. Also have a look at your PHP version number: if it contains "b" or "alpha" it means you're running a testing version of PHP. That's not a so good idea, please upgrade to a plain revision.

6.2.5 2.5 Each time I want to insert or change a row or drop a database or a table, an error 404 (page not found) is displayed or, with HTTP or cookie authentication, I'm asked to log in again. What's wrong?

Check your webserver setup if it correctly fills in either PHP_SELF or REQUEST_URI variables.

If you are running phpMyAdmin behind reverse proxy, please set the *$cfg['PmaAbsoluteUri']* directive in the phpMyAdmin configuration file to match your setup.

6.2.6 2.6 I get an "Access denied for user: 'root@localhost' (Using password: YES)"-error when trying to access a MySQL-Server on a host which is port-forwarded for my localhost.

When you are using a port on your localhost, which you redirect via port-forwarding to another host, MySQL is not resolving the localhost as expected. Erik Wasser explains: The solution is: if your host is "localhost" MySQL (the command line tool **mysql** as well) always tries to use the socket connection for speeding up things. And that doesn't work in this configuration with port forwarding. If you enter "127.0.0.1" as hostname, everything is right and MySQL uses the *TCP* connection.

6.2.7 2.7 Using and creating themes

See *Custom Themes*.

6.2.8 2.8 I get "Missing parameters" errors, what can I do?

Here are a few points to check:

- In `config.inc.php`, try to leave the *$cfg['PmaAbsoluteUri']* directive empty. See also *4.7 Authentication window is displayed more than once, why?*.
- Maybe you have a broken PHP installation or you need to upgrade your Zend Optimizer. See <https://bugs.php.net/bug.php?id=31134>.
- If you are using Hardened PHP with the ini directive `varfilter.max_request_variables` set to the default (200) or another low value, you could get this error if your table has a high number of columns. Adjust this setting accordingly. (Thanks to Klaus Dorninger for the hint).
- In the `php.ini` directive `arg_separator.input`, a value of ";" will cause this error. Replace it with "&;".
- If you are using Suhosin, you might want to increase request limits.
- The directory specified in the `php.ini` directive `session.save_path` does not exist or is read-only (this can be caused by bug in the PHP installer).

6.2.9 2.9 Seeing an upload progress bar

To be able to see a progress bar during your uploads, your server must have the uploadprogress extension, and you must be running PHP 5.4.0 or higher. Moreover, the JSON extension has to be enabled in your PHP.

If using PHP 5.4.0 or higher, you must set `session.upload_progress.enabled` to 1 in your `php.ini`. However, starting from phpMyAdmin version 4.0.4, session-based upload progress has been temporarily deactivated due to its problematic behavior.

6.2.10 2.10 How to generate a string of random bytes

One way to generate a string of random bytes suitable for cryptographic use is using the random_bytes *PHP* function. Since this function returns a binary string, the returned value should be converted to printable format before being able to copy it.

For example, the *$cfg['blowfish_secret']* configuration directive requires a 32-bytes long string. The following command can be used to generate a hexadecimal representation of this string.

```
php -r 'echo bin2hex(random_bytes(32)) . PHP_EOL;'
```

The above example will output something similar to:

```
f16ce59f45714194371b48fe362072dc3b019da7861558cd4ad29e4d6fb13851
```

And then this hexadecimal value can be used in the configuration file.

```
$cfg['blowfish_secret'] = sodium_hex2bin(
↪'f16ce59f45714194371b48fe362072dc3b019da7861558cd4ad29e4d6fb13851');
```

The sodium_hex2bin is used here to convert the hexadecimal value back to the binary format.

6.3 Known limitations

6.3.1 3.1 When using HTTP authentication, a user who logged out can not log in again in with the same nick.

This is related to the authentication mechanism (protocol) used by phpMyAdmin. To bypass this problem: just close all the opened browser windows and then go back to phpMyAdmin. You should be able to log in again.

6.3.2 3.2 When dumping a large table in compressed mode, I get a memory limit error or a time limit error.

Compressed dumps are built in memory and because of this are limited to php's memory limit. For gzip/bzip2 exports this can be overcome since 2.5.4 using *$cfg['CompressOnFly']* (enabled by default). zip exports can not be handled this way, so if you need zip files for larger dump, you have to use another way.

6.3.3 3.3 With InnoDB tables, I lose foreign key relationships when I rename a table or a column.

This is an InnoDB bug, see <https://bugs.mysql.com/bug.php?id=21704>.

6.3.4 3.4 I am unable to import dumps I created with the mysqldump tool bundled with the MySQL server distribution.

The problem is that older versions of `mysqldump` created invalid comments like this:

```
-- MySQL dump 8.22
--
-- Host: localhost Database: database
---------------------------------------------------------
-- Server version 3.23.54
```

The invalid part of the code is the horizontal line made of dashes that appears once in every dump created with mysqldump. If you want to run your dump you have to turn it into valid MySQL. This means, you have to add a whitespace after the first two dashes of the line or add a # before it: `-- ----------` or `#----------`

6.3.5 3.5 When using nested folders, multiple hierarchies are displayed in a wrong manner.

Please note that you should not use the separating string multiple times without any characters between them, or at the beginning/end of your table name. If you have to, think about using another TableSeparator or disabling that feature.

See also

$cfg['NavigationTreeTableSeparator']

6.3.6 3.6 (withdrawn).

6.3.7 3.7 I have table with many (100+) columns and when I try to browse table I get series of errors like "Warning: unable to parse url". How can this be fixed?

Your table neither have a *primary key* nor an *unique key*, so we must use a long expression to identify this row. This causes problems to parse_url function. The workaround is to create a *primary key* or *unique key*.

6.3.8 3.8 I cannot use (clickable) HTML-forms in columns where I put a MIME-Transformation onto!

Due to a surrounding form-container (for multi-row delete checkboxes), no nested forms can be put inside the table where phpMyAdmin displays the results. You can, however, use any form inside of a table if keep the parent form-container with the target to tbl_row_delete.php and just put your own input-elements inside. If you use a custom submit input field, the form will submit itself to the displaying page again, where you can validate the $HTTP_POST_VARS in a transformation. For a tutorial on how to effectively use transformations, see our Link section on the official phpMyAdmin-homepage.

6.3.9 3.9 I get error messages when using "–sql_mode=ANSI" for the MySQL server.

When MySQL is running in ANSI-compatibility mode, there are some major differences in how *SQL* is structured (see <https://dev.mysql.com/doc/refman/5.7/en/sql-mode.html>). Most important of all, the quote-character (") is interpreted as an identifier quote character and not as a string quote character, which makes many internal phpMyAdmin operations into invalid *SQL* statements. There is no workaround to this behaviour. News to this item will be posted in issue #7383.

6.3.10 3.10 Homonyms and no primary key: When the results of a SELECT display more that one column with the same value (for example `SELECT lastname from employees where firstname like 'A%'` and two "Smith" values are displayed), if I click Edit I cannot be sure that I am editing the intended row.

Please make sure that your table has a *primary key*, so that phpMyAdmin can use it for the Edit and Delete links.

6.3.11 3.11 The number of rows for InnoDB tables is not correct.

phpMyAdmin uses a quick method to get the row count, and this method only returns an approximate count in the case of InnoDB tables. See *`$cfg['MaxExactCount']`* for a way to modify those results, but this could have a serious impact on performance. However, one can easily replace the approximate row count with exact count by simply clicking on the approximate count. This can also be done for all tables at once by clicking on the rows sum displayed at the bottom.

See also

`$cfg['MaxExactCount']`

6.3.12 3.12 (withdrawn).

6.3.13 3.13 I get an error when entering `USE` followed by a db name containing an hyphen.

The tests I have made with MySQL 5.1.49 shows that the API does not accept this syntax for the USE command.

6.3.14 3.14 I am not able to browse a table when I don't have the right to SELECT one of the columns.

This has been a known limitation of phpMyAdmin since the beginning and it's not likely to be solved in the future.

6.3.15 3.15 (withdrawn).

6.3.16 3.16 (withdrawn).

6.3.17 3.17 (withdrawn).

6.3.18 3.18 When I import a CSV file that contains multiple tables, they are lumped together into a single table.

There is no reliable way to differentiate tables in *CSV* format. For the time being, you will have to break apart *CSV* files containing multiple tables.

6.3.19 3.19 When I import a file and have phpMyAdmin determine the appropriate data structure it only uses int, decimal, and varchar types.

Currently, the import type-detection system can only assign these MySQL types to columns. In future, more will likely be added but for the time being you will have to edit the structure to your liking post-import. Also, you should note the fact that phpMyAdmin will use the size of the largest item in any given column as the column size for the appropriate type. If you know you will be adding larger items to that column then you should manually adjust the column sizes accordingly. This is done for the sake of efficiency.

6.3.20 3.20 After upgrading, some bookmarks are gone or their content cannot be shown.

At some point, the character set used to store bookmark content has changed. It's better to recreate your bookmark from the newer phpMyAdmin version.

6.3.21 3.21 I am unable to log in with a username containing unicode characters such as á.

This can happen if MySQL server is not configured to use utf-8 as default charset. This is a limitation of how PHP and the MySQL server interact; there is no way for PHP to set the charset before authenticating.

See also

phpMyAdmin issue 12232, MySQL documentation note

6.4 ISPs, multi-user installations

6.4.1 4.1 I'm an ISP. Can I setup one central copy of phpMyAdmin or do I need to install it for each customer?

Since version 2.0.3, you can setup a central copy of phpMyAdmin for all your users. The development of this feature was kindly sponsored by NetCologne GmbH. This requires a properly setup MySQL user management and phpMyAdmin *HTTP* or cookie authentication.

See also

Using authentication modes

6.4.2 4.2 What's the preferred way of making phpMyAdmin secure against evil access?

This depends on your system. If you're running a server which cannot be accessed by other people, it's sufficient to use the directory protection bundled with your webserver (with Apache you can use *.htaccess* files, for example). If other people have telnet access to your server, you should use phpMyAdmin's *HTTP* or cookie authentication features.

Suggestions:

- Your `config.inc.php` file should be `chmod 660`.
- All your phpMyAdmin files should be chown -R phpmy.apache, where phpmy is a user whose password is only known to you, and apache is the group under which Apache runs.
- Follow security recommendations for PHP and your webserver.

6.4.3 4.3 I get errors about not being able to include a file in */lang* or in */libraries*.

Check `php.ini`, or ask your sysadmin to check it. The `include_path` must contain "." somewhere in it, and `open_basedir`, if used, must contain "." and "./lang" to allow normal operation of phpMyAdmin.

6.4.4 4.4 phpMyAdmin always gives "Access denied" when using HTTP authentication.

This could happen for several reasons:

- *$cfg['Servers'][$i]['controluser']* and/or *$cfg['Servers'][$i]['controlpass']* are wrong.
- The username/password you specify in the login dialog are invalid.
- You have already setup a security mechanism for the phpMyAdmin- directory, eg. a *.htaccess* file. This would interfere with phpMyAdmin's authentication, so remove it.

6.4.5 4.5 Is it possible to let users create their own databases?

Starting with 2.2.5, in the user management page, you can enter a wildcard database name for a user (for example "joe%"), and put the privileges you want. For example, adding `SELECT, INSERT, UPDATE, DELETE, CREATE, DROP, INDEX, ALTER` would let a user create/manage their database(s).

6.4.6 4.6 How can I use the Host-based authentication additions?

If you have existing rules from an old *.htaccess* file, you can take them and add a username between the `'deny'/'allow'` and `'from'` strings. Using the username wildcard of `'%'` would be a major benefit here if your installation is suited to using it. Then you can just add those updated lines into the *$cfg['Servers'][$i]['AllowDeny']['rules']* array.

If you want a pre-made sample, you can try this fragment. It stops the 'root' user from logging in from any networks other than the private network *IP* blocks.

```
//block root from logging in except from the private networks
$cfg['Servers'][$i]['AllowDeny']['order'] = 'deny,allow';
$cfg['Servers'][$i]['AllowDeny']['rules'] = [
    'deny root from all',
    'allow root from localhost',
    'allow root from 10.0.0.0/8',
    'allow root from 192.168.0.0/16',
    'allow root from 172.16.0.0/12',
];
```

6.4.7 4.7 Authentication window is displayed more than once, why?

This happens if you are using a *URL* to start phpMyAdmin which is different than the one set in your *$cfg['PmaAbsoluteUri']*. For example, a missing "www", or entering with an *IP* address while a domain name is defined in the config file.

6.4.8 4.8 Which parameters can I use in the URL that starts phpMyAdmin?

When starting phpMyAdmin, you can use the `db` and `server` parameters. This last one can contain either the numeric host index (from `$i` of the configuration file) or one of the host names present in the configuration file.

For example, to jump directly to a particular database, a URL can be constructed as `https://example.com/phpmyadmin/?db=sakila`.

See also

1.34 Can I directly access a database or table pages?

Changed in version 4.9.0: Support for using the `pma_username` and `pma_password` parameters was removed in phpMyAdmin 4.9.0 (see PMASA-2019-4).

6.5 Browsers or client OS

6.5.1 5.1 I get an out of memory error, and my controls are non-functional, when trying to create a table with more than 14 columns.

We could reproduce this problem only under Win98/98SE. Testing under WinNT4 or Win2K, we could easily create more than 60 columns. A workaround is to create a smaller number of columns, then come back to your table properties and add the other columns.

6.5.2 5.2 With Xitami 2.5b4, phpMyAdmin won't process form fields.

This is not a phpMyAdmin problem but a Xitami known bug: you'll face it with each script/website that use forms. Upgrade or downgrade your Xitami server.

6.5.3 5.3 I have problems dumping tables with Konqueror (phpMyAdmin 2.2.2).

With Konqueror 2.1.1: plain dumps, zip and gzip dumps work ok, except that the proposed file name for the dump is always 'tbl_dump.php'. The bzip2 dumps don't seem to work. With Konqueror 2.2.1: plain dumps work; zip dumps are placed into the user's temporary directory, so they must be moved before closing Konqueror, or else they disappear. gzip dumps give an error message. Testing needs to be done for Konqueror 2.2.2.

6.5.4 5.4 I can't use the cookie authentication mode because Internet Explorer never stores the cookies.

MS Internet Explorer seems to be really buggy about cookies, at least till version 6.

6.5.5 5.5 (withdrawn).

6.5.6 5.6 (withdrawn).

6.5.7 5.7 I refresh (reload) my browser, and come back to the welcome page.

Some browsers support right-clicking into the frame you want to refresh, just do this in the right frame.

6.5.8 5.8 With Mozilla 0.9.7 I have problems sending a query modified in the query box.

Looks like a Mozilla bug: 0.9.6 was OK. We will keep an eye on future Mozilla versions.

6.5.9 5.9 With Mozilla 0.9.? to 1.0 and Netscape 7.0-PR1 I can't type a whitespace in the SQL-Query edit area: the page scrolls down.

This is a Mozilla bug (see bug #26882 at BugZilla).

6.5.10 5.10 (withdrawn).

6.5.11 5.11 Extended-ASCII characters like German umlauts are displayed wrong.

Please ensure that you have set your browser's character set to the one of the language file you have selected on phpMyAdmin's start page. Alternatively, you can try the auto detection mode that is supported by the recent versions of the most browsers.

6.5.12 5.12 Mac OS X Safari browser changes special characters to "?".

This issue has been reported by a *macOS* user, who adds that Chimera, Netscape and Mozilla do not have this problem.

6.5.13 5.13 (withdrawn)

6.5.14 5.14 (withdrawn)

6.5.15 5.15 (withdrawn)

6.5.16 5.16 With Internet Explorer, I get "Access is denied" Javascript errors. Or I cannot make phpMyAdmin work under Windows.

Please check the following points:

- Maybe you have defined your *$cfg['PmaAbsoluteUri']* setting in `config.inc.php` to an *IP* address and you are starting phpMyAdmin with a *URL* containing a domain name, or the reverse situation.
- Security settings in IE and/or Microsoft Security Center are too high, thus blocking scripts execution.
- The Windows Firewall is blocking Apache and MySQL. You must allow *HTTP* ports (80 or 443) and MySQL port (usually 3306) in the "in" and "out" directions.

6.5.17 5.17 With Firefox, I cannot delete rows of data or drop a database.

Many users have confirmed that the Tabbrowser Extensions plugin they installed in their Firefox is causing the problem.

6.5.18 5.18 (withdrawn)

6.5.19 5.19 I get JavaScript errors in my browser.

Issues have been reported with some combinations of browser extensions. To troubleshoot, disable all extensions then clear your browser cache to see if the problem goes away.

6.5.20 5.20 I get errors about violating Content Security Policy.

If you see errors like:

```
Refused to apply inline style because it violates the following Content Security Policy␣
↪directive
```

This is usually caused by some software, which wrongly rewrites *Content Security Policy* headers. Usually this is caused by antivirus proxy or browser addons which are causing such errors.

If you see these errors, try disabling the HTTP proxy in antivirus or disable the *Content Security Policy* rewriting in it. If that doesn't help, try disabling browser extensions.

Alternatively it can be also server configuration issue (if the webserver is configured to emit *Content Security Policy* headers, they can override the ones from phpMyAdmin).

Programs known to cause these kind of errors:

- Kaspersky Internet Security

6.5.21 5.21 I get errors about potentially unsafe operation when browsing table or executing SQL query.

If you see errors like:

```
A potentially unsafe operation has been detected in your request to this site.
```

This is usually caused by web application firewall doing requests filtering. It tries to prevent SQL injection, however phpMyAdmin is tool designed to execute SQL queries, thus it makes it unusable.

Please allow phpMyAdmin scripts from the web application firewall settings or disable it completely for phpMyAdmin path.

Programs known to cause these kind of errors:

- Wordfence Web Application Firewall

6.6 Using phpMyAdmin

6.6.1 6.1 I can't insert new rows into a table / I can't create a table - MySQL brings up a SQL error.

Examine the *SQL* error with care. Often the problem is caused by specifying a wrong column-type. Common errors include:

- Using `VARCHAR` without a size argument
- Using `TEXT` or `BLOB` with a size argument

Also, look at the syntax chapter in the MySQL manual to confirm that your syntax is correct.

6.6.2 6.2 When I create a table, I set an index for two columns and phpMyAdmin generates only one index with those two columns.

This is the way to create a multi-columns index. If you want two indexes, create the first one when creating the table, save, then display the table properties and click the Index link to create the other index.

6.6.3 6.3 How can I insert a null value into my table?

Since version 2.2.3, you have a checkbox for each column that can be null. Before 2.2.3, you had to enter "null", without the quotes, as the column's value. Since version 2.5.5, you have to use the checkbox to get a real NULL value, so if you enter "NULL" this means you want a literal NULL in the column, and not a NULL value (this works in PHP4).

6.6.4 6.4 How can I backup my database or table?

Click on a database or table name in the navigation panel, the properties will be displayed. Then on the menu, click "Export", you can dump the structure, the data, or both. This will generate standard *SQL* statements that can be used to recreate your database/table. You will need to choose "Save as file", so that phpMyAdmin can transmit the resulting dump to your station. Depending on your PHP configuration, you will see options to compress the dump. See also the *`$cfg['ExecTimeLimit']`* configuration variable. For additional help on this subject, look for the word "dump" in this document.

6.6.5 6.5 How can I restore (upload) my database or table using a dump? How can I run a ".sql" file?

Click on a database name in the navigation panel, the properties will be displayed. Select "Import" from the list of tabs in the right–hand frame (or "*SQL*" if your phpMyAdmin version is previous to 2.7.0). In the "Location of the text file" section, type in the path to your dump filename, or use the Browse button. Then click Go. With version 2.7.0, the import engine has been re–written, if possible it is suggested that you upgrade to take advantage of the new features. For additional help on this subject, look for the word "upload" in this document.

Note: For errors while importing of dumps exported from older MySQL versions to newer MySQL versions, please check *6.41 I get import errors while importing the dumps exported from older MySQL versions (pre-5.7.6) into newer MySQL versions (5.7.7+), but they work fine when imported back on same older versions ?*.

6.6.6 6.6 How can I use the relation table in Query-by-example?

Here is an example with the tables persons, towns and countries, all located in the database "mydb". If you don't have a `pma__relation` table, create it as explained in the configuration section. Then create the example tables:

```
CREATE TABLE REL_countries (
country_code char(1) NOT NULL default '',
description varchar(10) NOT NULL default '',
PRIMARY KEY (country_code)
) ENGINE=MyISAM;

INSERT INTO REL_countries VALUES ('C', 'Canada');

CREATE TABLE REL_persons (
id tinyint(4) NOT NULL auto_increment,
person_name varchar(32) NOT NULL default '',
town_code varchar(5) default '0',
country_code char(1) NOT NULL default '',
PRIMARY KEY (id)
) ENGINE=MyISAM;

INSERT INTO REL_persons VALUES (11, 'Marc', 'S', 'C');
INSERT INTO REL_persons VALUES (15, 'Paul', 'S', 'C');

CREATE TABLE REL_towns (
town_code varchar(5) NOT NULL default '0',
description varchar(30) NOT NULL default '',
PRIMARY KEY (town_code)
) ENGINE=MyISAM;

INSERT INTO REL_towns VALUES ('S', 'Sherbrooke');
INSERT INTO REL_towns VALUES ('M', 'Montréal');
```

To setup appropriate links and display information:

- on table "REL_persons" click Structure, then Relation view
- for "town_code", choose from dropdowns, "mydb", "REL_towns", "town_code" for foreign database, table and column respectively
- for "country_code", choose from dropdowns, "mydb", "REL_countries", "country_code" for foreign database, table and column respectively
- on table "REL_towns" click Structure, then Relation view

- in “Choose column to display”, choose “description”
- repeat the two previous steps for table “REL_countries”

Then test like this:

- Click on your db name in the navigation panel
- Choose “Query”
- Use tables: persons, towns, countries
- Click “Update query”
- In the columns row, choose persons.person_name and click the “Show” tickbox
- Do the same for towns.description and countries.descriptions in the other 2 columns
- Click “Update query” and you will see in the query box that the correct joins have been generated
- Click “Submit query”

6.6.7 6.7 How can I use the “display column” feature?

Starting from the previous example, create the `pma__table_info` as explained in the configuration section, then browse your persons table, and move the mouse over a town code or country code. See also *6.21 In edit/insert mode, how can I see a list of possible values for a column, based on some foreign table?* for an additional feature that “display column” enables: drop-down list of possible values.

6.6.8 6.8 How can I produce a PDF schema of my database?

First the configuration variables “relation”, “table_coords” and “pdf_pages” have to be filled in.

- Select your database in the navigation panel.
- Choose “*Designer*” in the navigation bar at the top.
- Move the tables the way you want them.
- Choose “*Export schema*” in the left menu.
- The export modal will open.
- Select the type of export to *PDF*, you may adjust the other settings.
- Submit the form and the file will start downloading.

See also

Relations

6.6.9 6.9 phpMyAdmin is changing the type of one of my columns!

No, it’s MySQL that is doing silent column type changing.

6.6.10 6.10 When creating a privilege, what happens with underscores in the database name?

If you do not put a backslash before the underscore, this is a wildcard grant, and the underscore means “any character”. So, if the database name is “john_db”, the user would get rights to john1db, john2db … If you put a backslash before the underscore, it means that the database name will have a real underscore.

6.6.11 6.11 What is the curious symbol ø in the statistics pages?

It means "average".

6.6.12 6.12 I want to understand some Export options.

Structure:

- "Add DROP TABLE" will add a line telling MySQL to drop the table, if it already exists during the import. It does NOT drop the table after your export, it only affects the import file.
- "If Not Exists" will only create the table if it doesn't exist. Otherwise, you may get an error if the table name exists but has a different structure.
- "Add AUTO_INCREMENT value" ensures that AUTO_INCREMENT value (if any) will be included in backup.
- "Enclose table and column names with backquotes" ensures that column and table names formed with special characters are protected.
- "Add into comments" includes column comments, relations, and media types set in the pmadb in the dump as *SQL* comments (*/* xxx */*).

Data:

- "Complete inserts" adds the column names on every INSERT command, for better documentation (but resulting file is bigger).
- "Extended inserts" provides a shorter dump file by using only once the INSERT verb and the table name.
- "Delayed inserts" are best explained in the MySQL manual - INSERT DELAYED Syntax.
- "Ignore inserts" treats errors as a warning instead. Again, more info is provided in the MySQL manual - INSERT Syntax, but basically with this selected, invalid values are adjusted and inserted rather than causing the entire statement to fail.

6.6.13 6.13 I would like to create a database with a dot in its name.

This is a bad idea, because in MySQL the syntax "database.table" is the normal way to reference a database and table name. Worse, MySQL will usually let you create a database with a dot, but then you cannot work with it, nor delete it.

6.6.14 6.14 (withdrawn).

6.6.15 6.15 I want to add a BLOB column and put an index on it, but MySQL says "BLOB column '...' used in key specification without a key length".

The right way to do this, is to create the column without any indexes, then display the table structure and use the "Create an index" dialog. On this page, you will be able to choose your BLOB column, and set a size to the index, which is the condition to create an index on a BLOB column.

6.6.16 6.16 How can I simply move in page with plenty editing fields?

You can use `Ctrl+arrows` (`Option+Arrows` in Safari) for moving on most pages with many editing fields (table structure changes, row editing, etc.).

6.6.17 6.17 Transformations: I can't enter my own mimetype! What is this feature then useful for?

Defining mimetypes is of no use if you can't put transformations on them. Otherwise you could just put a comment on the column. Because entering your own mimetype will cause serious syntax checking issues and validation, this

introduces a high-risk false- user-input situation. Instead you have to initialize mimetypes using functions or empty mimetype definitions.

Plus, you have a whole overview of available mimetypes. Who knows all those mimetypes by heart so they can enter it at will?

6.6.18 6.18 Bookmarks: Where can I store bookmarks? Why can't I see any bookmarks below the query box? What are these variables for?

You need to have configured the *phpMyAdmin configuration storage* for using bookmarks feature. Once you have done that, you can use bookmarks in the *SQL* tab.

See also

Bookmarks

6.6.19 6.19 How can I create simple LATEX document to include exported table?

You can simply include table in your LATEX documents, minimal sample document should look like following one (assuming you have table exported in file `table.tex`):

```
\documentclass{article} % or any class you want
\usepackage{longtable}  % for displaying table
\begin{document}        % start of document
\include{table}         % including exported table
\end{document}          % end of document
```

6.6.20 6.20 I see a lot of databases which are not mine, and cannot access them.

You have one of these global privileges: CREATE TEMPORARY TABLES, SHOW DATABASES, LOCK TABLES. Those privileges also enable users to see all the database names. So if your users do not need those privileges, you can remove them and their databases list will shorten.

See also

<https://bugs.mysql.com/bug.php?id=179>

6.6.21 6.21 In edit/insert mode, how can I see a list of possible values for a column, based on some foreign table?

You have to setup appropriate links between the tables, and also setup the "display column" in the foreign table. See *6.6 How can I use the relation table in Query-by-example?* for an example. Then, if there are 100 values or less in the foreign table, a drop-down list of values will be available. You will see two lists of values, the first list containing the key and the display column, the second list containing the display column and the key. The reason for this is to be able to type the first letter of either the key or the display column. For 100 values or more, a distinct window will appear, to browse foreign key values and choose one. To change the default limit of 100, see *`$cfg['ForeignKeyMaxLimit']`*.

6.6.22 6.22 Bookmarks: Can I execute a default bookmark automatically when entering Browse mode for a table?

Yes. If a bookmark has the same label as a table name and it's not a public bookmark, it will be executed.

See also

Bookmarks

6.6.23 6.23 Export: I heard phpMyAdmin can export Microsoft Excel files?

You can use *CSV* for Microsoft Excel, which works out of the box.

Changed in version 3.4.5: Since phpMyAdmin 3.4.5 support for direct export to Microsoft Excel version 97 and newer was dropped.

6.6.24 6.24 Now that phpMyAdmin supports native MySQL 4.1.x column comments, what happens to my column comments stored in pmadb?

Automatic migration of a table's pmadb-style column comments to the native ones is done whenever you enter Structure page for this table.

6.6.25 6.25 (withdrawn).

6.6.26 6.26 How can I select a range of rows?

Click the first row of the range, hold the shift key and click the last row of the range. This works everywhere you see rows, for example in Browse mode or on the Structure page.

6.6.27 6.27 What format strings can I use?

In all places where phpMyAdmin accepts format strings, you can use `@VARIABLE@` expansion and strftime format strings. The expanded variables depend on a context (for example, if you haven't chosen a table, you can not get the table name), but the following variables can be used:

`@HTTP_HOST@`
: HTTP host that runs phpMyAdmin

`@SERVER@`
: MySQL server name

`@VERBOSE@`
: Verbose MySQL server name as defined in *`$cfg['Servers'][$i]['verbose']`*

`@VSERVER@`
: Verbose MySQL server name if set, otherwise normal

`@DATABASE@`
: Currently opened database

`@TABLE@`
: Currently opened table

`@COLUMNS@`
: Columns of the currently opened table

`@PHPMYADMIN@`
: phpMyAdmin with version

6.6.28 6.28 (withdrawn).

6.6.29 6.29 Why can't I get a chart from my query result table?

Not every table can be put to the chart. Only tables with one, two or three columns can be visualised as a chart. Moreover the table must be in a special format for chart script to understand it. Currently supported formats can be found in *Charts*.

6.6.30 6.30 Import: How can I import ESRI Shapefiles?

An ESRI Shapefile is actually a set of several files, where .shp file contains geometry data and .dbf file contains data related to those geometry data. To read data from .dbf file you need to have PHP compiled with the dBase extension (–enable-dbase). Otherwise only geometry data will be imported.

To upload these set of files you can use either of the following methods:

Configure upload directory with *$cfg['UploadDir']*, upload both .shp and .dbf files with the same filename and chose the .shp file from the import page.

Create a zip archive with .shp and .dbf files and import it. For this to work, you need to set *$cfg['TempDir']* to a place where the web server user can write (for example `'./tmp'`).

To create the temporary directory on a UNIX-based system, you can do:

```
cd phpMyAdmin
mkdir tmp
chmod o+rwx tmp
```

6.6.31 6.31 How do I create a relation in designer?

To select relation, click: The display column is shown in pink. To set/unset a column as the display column, click the "Choose column to display" icon, then click on the appropriate column name.

6.6.32 6.32 How can I use the zoom search feature?

The Zoom search feature is an alternative to table search feature. It allows you to explore a table by representing its data in a scatter plot. You can locate this feature by selecting a table and clicking the *Search* tab. One of the sub-tabs in the *Table Search* page is *Zoom Search*.

Consider the table REL_persons in *6.6 How can I use the relation table in Query-by-example?* for an example. To use zoom search, two columns need to be selected, for example, id and town_code. The id values will be represented on one axis and town_code values on the other axis. Each row will be represented as a point in a scatter plot based on its id and town_code. You can include two additional search criteria apart from the two fields to display.

You can choose which field should be displayed as label for each point. If a display column has been set for the table (see *6.7 How can I use the "display column" feature?*), it is taken as the label unless you specify otherwise. You can also select the maximum number of rows you want to be displayed in the plot by specifing it in the 'Max rows to plot' field. Once you have decided over your criteria, click 'Go' to display the plot.

After the plot is generated, you can use the mouse wheel to zoom in and out of the plot. In addition, panning feature is enabled to navigate through the plot. You can zoom-in to a certain level of detail and use panning to locate your area of interest. Clicking on a point opens a dialogue box, displaying field values of the data row represented by the point. You can edit the values if required and click on submit to issue an update query. Basic instructions on how to use can be viewed by clicking the 'How to use?' link located just above the plot.

6.6.33 6.33 When browsing a table, how can I copy a column name?

Selecting the name of the column within the browse table header cell for copying is difficult, as the columns support reordering by dragging the header cells as well as sorting by clicking on the linked column name. To copy a column name, double-click on the empty area next to the column name, when the tooltip tells you to do so. This will show you an input box with the column name. You may right-click the column name within this input box to copy it to your clipboard.

6.6.34 6.34 How can I use the Favorite Tables feature?

Favorite Tables feature is very much similar to Recent Tables feature. It allows you to add a shortcut for the frequently used tables of any database in the navigation panel . You can easily navigate to any table in the list by simply choosing it from the list. These tables are stored in your browser's local storage if you have not configured your *phpMyAdmin Configuration Storage*. Otherwise these entries are stored in *phpMyAdmin Configuration Storage*.

IMPORTANT: In absence of *phpMyAdmin Configuration Storage*, your Favorite tables may be different in different browsers based on your different selections in them.

To add a table to Favorite list simply click on the *Gray* star in front of a table name in the list of tables of a Database and wait until it turns to *Yellow*. To remove a table from list, simply click on the *Yellow* star and wait until it turns *Gray* again.

Using *$cfg['NumFavoriteTables']* in your `config.inc.php` file, you can define the maximum number of favorite tables shown in the navigation panel. Its default value is *10*.

6.6.35 6.35 How can I use the Range search feature?

With the help of range search feature, one can specify a range of values for particular column(s) while performing search operation on a table from the *Search* tab.

To use this feature simply click on the *BETWEEN* or *NOT BETWEEN* operators from the operator select list in front of the column name. On choosing one of the above options, a dialog box will show up asking for the *Minimum* and *Maximum* value for that column. Only the specified range of values will be included in case of *BETWEEN* and excluded in case of *NOT BETWEEN* from the final results.

Note: The Range search feature will work only *Numeric* and *Date* data type columns.

6.6.36 6.36 What is Central columns and how can I use this feature?

As the name suggests, the Central columns feature enables to maintain a central list of columns per database to avoid similar name for the same data element and bring consistency of data type for the same data element. You can use the central list of columns to add an element to any table structure in that database which will save from writing similar column name and column definition.

To add a column to central list, go to table structure page, check the columns you want to include and then simply click on "Add to central columns". If you want to add all unique columns from more than one table from a database then go to database structure page, check the tables you want to include and then select "Add columns to central list".

To remove a column from central list, go to Table structure page, check the columns you want to remove and then simply click on "Remove from central columns". If you want to remove all columns from more than one tables from a database then go to database structure page, check the tables you want to include and then select "Remove columns from central list".

To view and manage the central list, select the database you want to manage central columns for then from the top menu click on "Central columns". You will be taken to a page where you will have options to edit, delete or add new columns to central list.

6.6.37 6.37 How can I use Improve Table structure feature?

Improve table structure feature helps to bring the table structure upto Third Normal Form. A wizard is presented to user which asks questions about the elements during the various steps for normalization and a new structure is proposed accordingly to bring the table into the First/Second/Third Normal form. On startup of the wizard, user gets to select upto what normal form they want to normalize the table structure.

Here is an example table which you can use to test all of the three First, Second and Third Normal Form.

```
CREATE TABLE `VetOffice` (
 `petName` varchar(64) NOT NULL,
 `petBreed` varchar(64) NOT NULL,
 `petType` varchar(64) NOT NULL,
 `petDOB` date NOT NULL,
 `ownerLastName` varchar(64) NOT NULL,
 `ownerFirstName` varchar(64) NOT NULL,
 `ownerPhone1` int(12) NOT NULL,
 `ownerPhone2` int(12) NOT NULL,
 `ownerEmail` varchar(64) NOT NULL,
);
```

The above table is not in First normal Form as no *primary key* exists. Primary key is supposed to be (*petName*,`ownerLastName`,`ownerFirstName`) . If the *primary key* is chosen as suggested the resultant table won't be in Second as well as Third Normal form as the following dependencies exists.

```
(OwnerLastName, OwnerFirstName) -> OwnerEmail
(OwnerLastName, OwnerFirstName) -> OwnerPhone
PetBreed -> PetType
```

Which says, OwnerEmail depends on OwnerLastName and OwnerFirstName. OwnerPhone depends on OwnerLastName and OwnerFirstName. PetType depends on PetBreed.

6.6.38 6.38 How can I reassign auto-incremented values?

Some users prefer their AUTO_INCREMENT values to be consecutive; this is not always the case after row deletion.

Here are the steps to accomplish this. These are manual steps because they involve a manual verification at one point.

- Ensure that you have exclusive access to the table to rearrange
- On your *primary key* column (i.e. id), remove the AUTO_INCREMENT setting
- Delete your primary key in Structure > indexes
- Create a new column future_id as primary key, AUTO_INCREMENT
- Browse your table and verify that the new increments correspond to what you're expecting
- Drop your old id column
- Rename the future_id column to id
- Move the new id column via Structure > Move columns

6.6.39 6.39 What is the "Adjust privileges" option when renaming, copying, or moving a database, table, column, or procedure?

When renaming/copying/moving a database/table/column/procedure, MySQL does not adjust the original privileges relating to these objects on its own. By selecting this option, phpMyAdmin will adjust the privilege table so that users have the same privileges on the new items.

For example: A user 'bob'@'localhost' has a 'SELECT' privilege on a column named 'id'. Now, if this column is renamed to 'id_new', MySQL, on its own, would **not** adjust the column privileges to the new column name. phpMyAdmin can make this adjustment for you automatically.

Notes:

- While adjusting privileges for a database, the privileges of all database-related elements (tables, columns and procedures) are also adjusted to the database's new name.
- Similarly, while adjusting privileges for a table, the privileges of all the columns inside the new table are also adjusted.
- While adjusting privileges, the user performing the operation **must** have the following privileges:
  - SELECT, INSERT, UPDATE, DELETE privileges on following tables: *mysql*.`db`, *mysql*.`columns_priv`, *mysql*.`tables_priv`, *mysql*.`procs_priv`
  - FLUSH privilege (GLOBAL)

Thus, if you want to replicate the database/table/column/procedure as it is while renaming/copying/moving these objects, make sure you have checked this option.

6.6.40 6.40 I see "Bind parameters" checkbox in the "SQL" page. How do I write parameterized SQL queries?

From version 4.5, phpMyAdmin allows users to execute parameterized queries in the "SQL" page. Parameters should be prefixed with a colon(:) and when the "Bind parameters" checkbox is checked these parameters will be identified and input fields for these parameters will be presented. Values entered in these field will be substituted in the query before being executed.

6.6.41 6.41 I get import errors while importing the dumps exported from older MySQL versions (pre-5.7.6) into newer MySQL versions (5.7.7+), but they work fine when imported back on same older versions ?

If you get errors like *#1031 - Table storage engine for 'table_name' doesn't have this option* while importing the dumps exported from pre-5.7.7 MySQL servers into new MySQL server versions 5.7.7+, it might be because ROW_FORMAT=FIXED is not supported with InnoDB tables. Moreover, the value of innodb_strict_mode would define if this would be reported as a warning or as an error.

Since MySQL version 5.7.9, the default value for *innodb_strict_mode* is *ON* and thus would generate an error when such a CREATE TABLE or ALTER TABLE statement is encountered.

There are two ways of preventing such errors while importing:

- Change the value of *innodb_strict_mode* to *OFF* before starting the import and turn it *ON* after the import is successfully completed.
- This can be achieved in two ways:
  - Go to 'Variables' page and edit the value of *innodb_strict_mode*
  - Run the query : *SET GLOBAL `innodb_strict_mode* = '[value]'`

After the import is done, it is suggested that the value of *innodb_strict_mode* should be reset to the original value.

6.7 phpMyAdmin project

6.7.1 7.1 I have found a bug. How do I inform developers?

Our issues tracker is located at <https://github.com/phpmyadmin/phpmyadmin/issues>. For security issues, please refer to the instructions at <https://www.phpmyadmin.net/security> to email the developers directly.

6.7.2 7.2 I want to translate the messages to a new language or upgrade an existing language, where do I start?

Translations are very welcome and all you need to have are the language skills. The easiest way is to use our online translation service. You can check out all the possibilities to translate in the translate section on our website.

6.7.3 7.3 I would like to help out with the development of phpMyAdmin. How should I proceed?

We welcome every contribution to the development of phpMyAdmin. You can check out all the possibilities to contribute in the contribute section on our website.

See also

Developers Information

6.8 Security

6.8.1 8.1 Where can I get information about the security alerts issued for phpMyAdmin?

Please refer to <https://www.phpmyadmin.net/security/>.

6.8.2 8.2 How can I protect phpMyAdmin against brute force attacks?

If you use Apache web server, phpMyAdmin exports information about authentication to the Apache environment and it can be used in Apache logs. Currently there are two variables available:

`userID`
: User name of currently active user (they do not have to be logged in).

`userStatus`
: Status of currently active user, one of `ok` (user is logged in), `mysql-denied` (MySQL denied user login), `allow-denied` (user denied by allow/deny rules), `root-denied` (root is denied in configuration), `empty-denied` (empty password is denied).

`LogFormat` directive for Apache can look like following:

```
LogFormat "%h %l %u %t \"%r\" %>s %b \"%{Referer}i\" \"%{User-Agent}i\" %{userID}n %
↪{userStatus}n"   pma_combined
```

You can then use any log analyzing tools to detect possible break-in attempts.

6.8.3 8.3 Why are there path disclosures when directly loading certain files?

This is a server configuration problem. Never enable `display_errors` on a production site.

6.8.4 8.4 CSV files exported from phpMyAdmin could allow a formula injection attack.

It is possible to generate a *CSV* file that, when imported to a spreadsheet program such as Microsoft Excel, could potentially allow the execution of arbitrary commands.

The CSV files generated by phpMyAdmin could potentially contain text that would be interpreted by a spreadsheet program as a formula, but we do not believe escaping those fields is the proper behavior. There is no means to properly escape and differentiate between a desired text output and a formula that should be escaped, and CSV is a text format where function definitions should not be interpreted anyway. We have discussed this at length and feel it is the responsibility of the spreadsheet program to properly parse and sanitize such data on input instead.

Google also has a similar view.

6.9 Synchronization

6.9.1 9.1 (withdrawn).

6.9.2 9.2 (withdrawn).

CHAPTER

SEVEN

DEVELOPERS INFORMATION

phpMyAdmin is Open Source, so you're invited to contribute to it. Many great features have been written by other people and you too can help to make phpMyAdmin a useful tool.

You can check out all the possibilities to contribute in the contribute section on our website.

CHAPTER

EIGHT

SECURITY POLICY

The phpMyAdmin developer team is putting lot of effort to make phpMyAdmin as secure as possible. But still web application like phpMyAdmin can be vulnerable to a number of attacks and new ways to exploit are still being explored.

For every reported vulnerability we issue a phpMyAdmin Security Announcement (PMASA) and it get's assigned a CVE ID as well. We might group similar vulnerabilities to one PMASA (eg. multiple XSS vulnerabilities can be announced under one PMASA).

If you think you've found a vulnerability, please see *Reporting security issues*.

8.1 Typical vulnerabilities

In this section, we will describe typical vulnerabilities, which can appear in our code base. This list is by no means complete, it is intended to show typical attack surface.

8.1.1 Cross-site scripting (XSS)

When phpMyAdmin shows a piece of user data, e.g. something inside a user's database, all html special chars have to be escaped. When this escaping is missing somewhere a malicious user might fill a database with specially crafted content to trick an other user of that database into executing something. This could for example be a piece of JavaScript code that would do any number of nasty things.

phpMyAdmin tries to escape all userdata before it is rendered into html for the browser.

See also

Cross-site scripting on Wikipedia

8.1.2 Cross-site request forgery (CSRF)

An attacker would trick a phpMyAdmin user into clicking on a link to provoke some action in phpMyAdmin. This link could either be sent via email or some random website. If successful this the attacker would be able to perform some action with the users privileges.

To mitigate this phpMyAdmin requires a token to be sent on sensitive requests. The idea is that an attacker does not poses the currently valid token to include in the presented link.

The token is regenerated for every login, so it's generally valid only for limited time, what makes it harder for attacker to obtain valid one.

See also

Cross-site request forgery on Wikipedia

8.1.3 SQL injection

As the whole purpose of phpMyAdmin is to preform sql queries, this is not our first concern. SQL injection is sensitive to us though when it concerns the mysql control connection. This controlconnection can have additional privileges which the logged in user does not poses. E.g. access the *phpMyAdmin configuration storage*.

User data that is included in (administrative) queries should always be run through DatabaseInterface::escapeString().

See also

SQL injection on Wikipedia

8.1.4 Brute force attack

phpMyAdmin on its own does not rate limit authentication attempts in any way. This is caused by need to work in stateless environment, where there is no way to protect against such kind of things.

To mitigate this, you can use Captcha or utilize external tools such as fail2ban, this is more details described in *Securing your phpMyAdmin installation*.

See also

Brute force attack on Wikipedia

8.2 Reporting security issues

Should you find a security issue in the phpMyAdmin programming code, please contact the phpMyAdmin security team in advance before publishing it. This way we can prepare a fix and release the fix together with your announcement. You will be also given credit in our security announcement. You can optionally encrypt your report with PGP key ID `DA68AB39218AB947` with following fingerprint:

```
pub   4096R/DA68AB39218AB947 2016-08-02
      Key fingerprint = 5BAD 38CF B980 50B9 4BD7  FB5B DA68 AB39 218A B947
uid                          phpMyAdmin Security Team <security@phpmyadmin.net>
sub   4096R/5E4176FB497A31F7 2016-08-02
```

The key can be either obtained from the keyserver or is available in phpMyAdmin keyring available on our download server or using Keybase.

Should you have suggestion on improving phpMyAdmin to make it more secure, please report that to our issue tracker. Existing improvement suggestions can be found by hardening label.

CHAPTER

NINE

DISTRIBUTING AND PACKAGING PHPMYADMIN

This document is intended to give pieces of advice to people who want to redistribute phpMyAdmin inside other software packages such as Linux distribution or some all in one package including web server and MySQL server.

Generally, you can customize some basic aspects (paths to some files and behavior) in `libraries/vendor_config.php`.

For example, if you want setup script to generate a config file in var, change `SETUP_CONFIG_FILE` to `/var/lib/phpmyadmin/config.inc.php` and you will also probably want to skip directory writable check, so set `SETUP_DIR_WRITABLE` to false.

9.1 External libraries

phpMyAdmin includes several external libraries, you might want to replace them with system ones if they are available, but please note that you should test whether the version you provide is compatible with the one we ship.

Currently known list of external libraries:

js/vendor
: jQuery js framework libraries and various js libraries.

vendor/
: The download kit includes various Composer packages as dependencies.

9.2 Specific files LICENSES

phpMyAdmin distributed themes contain some content that is under licenses.

- The icons of the *Original* and *pmahomme* themes are from the Silk Icons.
- Some icons of the *Metro* theme are from the Silk Icons.
- *themes/*/img/b_rename.svg* Is a Icons8, icon from the Android L Icon Pack Collection. The icon rename.
- *themes/metro/img/user.svg* Is a IcoMoon the user

CC BY 4.0 or GPL

9.3 Licenses for vendors

- Silk Icons are under the CC BY 2.5 or CC BY 3.0 licenses.
- *rename* from *Icons8* is under the "public domain" (CC0 1.0) license.
- IcoMoon Free is under "CC BY 4.0 or GPL".

CHAPTER

TEN

COPYRIGHT

```
Copyright (C) 1998-2000 Tobias Ratschiller <tobias_at_ratschiller.com>
Copyright (C) 2001-2018 Marc Delisle <marc_at_infomarc.info>
    Olivier Müller <om_at_omnis.ch>
    Robin Johnson <robbat2_at_users.sourceforge.net>
    Alexander M. Turek <me_at_derrabus.de>
    Michal Čihař <michal_at_cihar.com>
    Garvin Hicking <me_at_supergarv.de>
    Michael Keck <mkkeck_at_users.sourceforge.net>
    Sebastian Mendel <cybot_tm_at_users.sourceforge.net>
    [check credits for more details]
```

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You should have received a copy of the GNU General Public License along with this program. If not, see <https://www.gnu.org/licenses/>.

10.1 Third party licenses

phpMyAdmin includes several third-party libraries which come under their respective licenses.

jQuery's license, which is where we got the files under js/vendor/jquery/ is (MIT|GPL), a copy of each license is available in this repository (GPL is available as LICENSE, MIT as js/vendor/jquery/MIT-LICENSE.txt).

The download kit additionally includes several composer libraries. See their licensing information in the vendor/ directory.

CHAPTER

ELEVEN

CREDITS

11.1 Credits, in chronological order

- Tobias Ratschiller <tobias_at_ratschiller.com>
  - creator of the phpMyAdmin project
  - maintainer from 1998 to summer 2000
- Marc Delisle <marc_at_infomarc.info>
  - multi-language version in December 1998
  - various fixes and improvements
  - first version of the *SQL* analyser (most of it)
  - maintainer from 2001 to 2015
- Olivier Müller <om_at_omnis.ch>
  - started SourceForge phpMyAdmin project in March 2001
  - sync'ed different existing CVS trees with new features and bugfixes
  - multi-language improvements, dynamic language selection
  - many bugfixes and improvements
- Loïc Chapeaux <lolo_at_phpheaven.net>
  - rewrote and optimized JavaScript, DHTML and DOM stuff
  - rewrote the scripts so they fit the *PEAR* coding standards and generate XHTML1.0 and CSS2 compliant codes
  - improved the language detection system
  - many bugfixes and improvements
- Robin Johnson <robbat2_at_users.sourceforge.net>
  - database maintenance controls
  - table type code
  - Host authentication *IP* Allow/Deny
  - DB-based configuration (Not completed)
  - *SQL* parser and pretty-printer
  - *SQL* validator

  - many bugfixes and improvements
- Armel Fauveau <armel.fauveau_at_globalis-ms.com>
  - bookmarks feature
  - multiple dump feature
  - gzip dump feature
  - zip dump feature
- Geert Lund <glund_at_silversoft.dk>
  - various fixes
  - moderator of the phpMyAdmin former users forum at phpwizard.net
- Korakot Chaovavanich <korakot_at_iname.com>
  - "insert as new row" feature
- Pete Kelly <webmaster_at_trafficg.com>
  - rewrote and fix dump code
  - bugfixes
- Steve Alberty <alberty_at_neptunlabs.de>
  - rewrote dump code for PHP4
  - mySQL table statistics
  - bugfixes
- Benjamin Gandon <gandon_at_isia.cma.fr>
  - main author of the version 2.1.0.1
  - bugfixes
- Alexander M. Turek <me_at_derrabus.de>
  - MySQL 4.0 / 4.1 / 5.0 compatibility
  - abstract database interface (PMA_DBI) with MySQLi support
  - privileges administration
  - *XML* exports
  - various features and fixes
  - German language file updates
- Mike Beck <mike.beck_at_web.de>
  - automatic joins in QBE
  - links column in printview
  - Relation view
- Michal Čihař <michal_at_cihar.com>
  - enhanced index creation/display feature
  - feature to use a different charset for HTML than for MySQL
  - improvements of export feature

  - various features and fixes
  - Czech language file updates
  - created current website for phpMyAdmin
- Christophe Gesché from the "MySQL Form Generator for PHPMyAdmin" (https://sourceforge.net/projects/phpmysqlformgen/)
  - suggested the patch for multiple table printviews
- Garvin Hicking <me_at_supergarv.de>
  - built the patch for vertical display of table rows
  - built the Javascript based Query window + *SQL* history
  - Improvement of column/db comments
  - (MIME)-Transformations for columns
  - Use custom alias names for Databases in left frame
  - hierarchical/nested table display
  - *PDF*-scratchboard for WYSIWYG- distribution of *PDF* relations
  - new icon sets
  - vertical display of column properties page
  - some bugfixes, features, support, German language additions
- Yukihiro Kawada <kawada_at_den.fujifilm.co.jp>
  - japanese kanji encoding conversion feature
- Piotr Roszatycki <d3xter_at_users.sourceforge.net> and Dan Wilson
  - the Cookie authentication mode
- Axel Sander <n8falke_at_users.sourceforge.net>
  - table relation-links feature
- Maxime Delorme <delorme.maxime_at_free.fr>
  - *PDF* schema output, thanks also to Olivier Plathey for the "FPDF" library (see <https://www.fpdf.org/>), Steven Wittens for the "UFPDF" library and Nicola Asuni for the "TCPDF" library (see <https://tcpdf.org/>).
- Olof Edlund <olof.edlund_at_upright.se>
  - *SQL* validator server
- Ivan R. Lanin <ivanlanin_at_users.sourceforge.net>
  - phpMyAdmin logo (until June 2004)
- Mike Cochrane <mike_at_graftonhall.co.nz>
  - blowfish library from the Horde project (withdrawn in release 4.0)
- Marcel Tschopp <ne0x_at_users.sourceforge.net>
  - mysqli support
  - many bugfixes and improvements
- Nicola Asuni (Tecnick.com)

  - TCPDF library (<https://tcpdf.org>)
- Michael Keck <mkkeck_at_users.sourceforge.net>
  - redesign for 2.6.0
  - phpMyAdmin sailboat logo (June 2004)
- Mathias Landhäußer
  - Representation at conferences
- Sebastian Mendel <cybot_tm_at_users.sourceforge.net>
  - interface improvements
  - various bugfixes
- Ivan A Kirillov
  - new relations Designer
- Raj Kissu Rajandran (Google Summer of Code 2008)
  - BLOBstreaming support (withdrawn in release 4.0)
- Piotr Przybylski (Google Summer of Code 2008, 2010 and 2011)
  - improved setup script
  - user preferences
  - Drizzle support
- Derek Schaefer (Google Summer of Code 2009)
  - Improved the import system
- Alexander Rutkowski (Google Summer of Code 2009)
  - Tracking mechanism
- Zahra Naeem (Google Summer of Code 2009)
  - Synchronization feature (removed in release 4.0)
- Tomáš Srnka (Google Summer of Code 2009)
  - Replication support
- Muhammad Adnan (Google Summer of Code 2010)
  - Relation schema export to multiple formats
- Lori Lee (Google Summer of Code 2010)
  - User interface improvements
  - ENUM/SET editor
  - Simplified interface for export/import
- Ninad Pundalik (Google Summer of Code 2010)
  - AJAXifying the interface
- Martynas Mickevičius (Google Summer of Code 2010)
  - Charts
- Barrie Leslie

  - BLOBstreaming support with PBMS PHP extension (withdrawn in release 4.0)
- Ankit Gupta (Google Summer of Code 2010)
  - Visual query builder
- Madhura Jayaratne (Google Summer of Code 2011)
  - OpenGIS support
- Ammar Yasir (Google Summer of Code 2011)
  - Zoom search
- Aris Feryanto (Google Summer of Code 2011)
  - Browse-mode improvements
- Thilanka Kaushalya (Google Summer of Code 2011)
  - AJAXification
- Tyron Madlener (Google Summer of Code 2011)
  - Query statistics and charts for the status page
- Zarubin Stas (Google Summer of Code 2011)
  - Automated testing
- Rouslan Placella (Google Summer of Code 2011 and 2012)
  - Improved support for Stored Routines, Triggers and Events
  - Italian translation updates
  - Removal of frames, new navigation
- Dieter Adriaenssens
  - Various bugfixes
  - Dutch translation updates
- Alex Marin (Google Summer of Code 2012)
  - New plugins and properties system
- Thilina Buddika Abeyrathna (Google Summer of Code 2012)
  - Refactoring
- Atul Pratap Singh (Google Summer of Code 2012)
  - Refactoring
- Chanaka Indrajith (Google Summer of Code 2012)
  - Refactoring
- Yasitha Pandithawatta (Google Summer of Code 2012)
  - Automated testing
- Jim Wigginton (phpseclib.sourceforge.net)
  - phpseclib
- Bin Zu (Google Summer of Code 2013)
  - Refactoring

- Supun Nakandala (Google Summer of Code 2013)
  - Refactoring
- Mohamed Ashraf (Google Summer of Code 2013)
  - AJAX error reporting
- Adam Kang (Google Summer of Code 2013)
  - Automated testing
- Ayush Chaudhary (Google Summer of Code 2013)
  - Automated testing
- Kasun Chathuranga (Google Summer of Code 2013)
  - Interface improvements
- Hugues Peccatte
  - Load/save query by example (database search bookmarks)
- Smita Kumari (Google Summer of Code 2014)
  - Central list of columns
  - Improve table structure (normalization)
- Ashutosh Dhundhara (Google Summer of Code 2014)
  - Interface improvements
- Dhananjay Nakrani (Google Summer of Code 2014)
  - PHP error reporting
- Edward Cheng (Google Summer of Code 2014)
  - SQL Query Console
- Kankanamge Bimal Yashodha (Google Summer of Code 2014)
  - Refactoring: Designer/schema integration
- Chirayu Chiripal (Google Summer of Code 2014)
  - Custom field handlers (Input based MIME transformations)
  - Export with table/column name changes
- Dan Ungureanu (Google Summer of Code 2015)
  - New parser and analyzer
- Nisarg Jhaveri (Google Summer of Code 2015)
  - Page-related settings
  - SQL debugging integration to the Console
  - Other UI improvements
- Deven Bansod (Google Summer of Code 2015)
  - Print view using CSS
  - Other UI improvements and new features
- Deven Bansod (Google Summer of Code 2017)

  - Improvements to the Error Reporting Server
  - Improved Selenium testing
- Manish Bisht (Google Summer of Code 2017)
  - Mobile user interface
  - Remove inline JavaScript code
  - Other UI improvements
- Raghuram Vadapalli (Google Summer of Code 2017)
  - Multi-table query interface
  - Allow Designer to work with tables from other databases
  - Other UI improvements
- Maurício Meneghini Fauth
  - Major improvements and upgrades to the JavaScript core
  - Modernize JavaScript library functionality
  - Modernize templating and introduce Twig
- William Desportes
  - Coding style improvements based on PHPStan
  - Improve links to external MySQL and MariaDB documentation
  - Numerous other bug fixes
- Emanuel Bronshtein
  - Comprehensive security assessment and suggestions
- Lakshya Arora (Google Summer of Code 2018)
  - Various improvements including:
    * Integrate user preferences with local storage
    * Use a modal login after session expiration
    * Add support for CHECK CONSTRAINTS
    * and more!
- Saksham Gupta (Google Summer of Code 2018)
  - Automated theme generator tool
- Leonardo Strozzi (Google Summer of Code 2018)
  - Refactoring Twig templates and other internal code improvements
- Piyush Vijay (Google Summer of Code 2018)
  - Modernize the JavaScript code including introducing Webpack, Babel, and Yarn as well as eslint and Jsdoc

And also to the following people who have contributed minor changes, enhancements, bugfixes or support for a new language since version 2.1.0:

Bora Alioglu, Ricardo ?, Sven-Erik Andersen, Alessandro Astarita, Péter Bakondy, Borges Botelho, Olivier Bussier, Neil Darlow, Mats Engstrom, Ian Davidson, Laurent Dhima, Kristof Hamann, Thomas Kläger, Lubos Klokner, Martin Marconcini, Girish Nair, David Nordenberg, Andreas Pauley, Bernard M. Piller, Laurent Haas, “Sakamoto”, Yuval

Sarna, www.securereality.com.au, Alexis Soulard, Alvar Soome, Siu Sun, Peter Svec, Michael Tacelosky, Rachim Tamsjadi, Kositer Uros, Luís V., Martijn W. van der Lee, Algis Vainauskas, Daniel Villanueva, Vinay, Ignacio Vazquez-Abrams, Chee Wai, Jakub Wilk, Thomas Michael Winningham, Vilius Zigmantas, "Manuzhai".

11.2 Translators

Following people have contributed to translation of phpMyAdmin:

- Afrikaans
  - Michal Čihař <michal_at_cihar.com>
  - William Desportes <williamdes_at_wdes.fr>
  - Maurício Meneghini Fauth <mauricio_at_fauth.dev>
  - Isaac Bennetch <bennetch_at_gmail.com>
  - J.M <me_at_mynetx.net>
  - Liviu-Mihail Concioiu <liviu.concioiu_at_gmail.com>
  - Rouslan Placella <rouslan_at_placella.com>
- Albanian
  - Arben Çokaj <acokaj_at_shkoder.net>
  - Laurent Dhima <laurenti_at_alblinux.net>
  - Porta Shqipe <info_at_portashqipe.com>
  - Genti Ereqi <gereqi_at_gmail.com>
  - Adalen Vladi <adalenvladi_at_gmail.com>
  - Pavel Rochnyack <pavel2000_at_ngs.ru>
- Amharic
  - Eyob Shiferaw <eeyyoobb_at_gmail.com>
- Arabic
  - Ahmed Saleh Abd El-Raouf Ismae <a.saleh.ismael_at_gmail.com>
  - Ahmed Saad <egbrave_at_hotmail.com>
  - hassan mokhtari <persiste1_at_gmail.com>
  - Abdullah Al-Saedi <abdullah.10_at_windowslive.com>
  - Ahmed El-Mahdawy <aa.mahdawy.10_at_gmail.com>
  - yagoub fadel <yagoub76_at_gmail.com>
  - u4504712 <u4504712_at_anu.edu.au>
  - Meno25 <meno25mail_at_gmail.com>
  - <metehyi_at_gmail.com>
  - Atef Ben Ali <atef.bettaib_at_gmail.com>
  - Boussaid Mustafa <bousali_at_gmail.com>
  - Hassan San <san_at_sintoria.com>
  - Ihab Mardoud <ihab.mardoud_at_gmail.com>

  - Waleed Abdeen <waleed.totti_at_gmail.com>
  - phlyper <phlyper_at_live.fr>
  - Shadi Gaafar <shadialaghbari_at_gmail.com>
  - <darhost56_at_gmail.com>
  - Ayoub Rejal <ayoubrejal_at_gmail.com>
- Armenian
  - Andrey Aleksanyants <aaleksanyants_at_yahoo.com>
  - Hamlet Muradyan <contact_at_hamletmuradyan.com>
- Asturian
- Azerbaijani
  - Mirclal <01youknowme_at_gmail.com>
  - Huseyn <huseyn_esgerov_at_mail.ru>
  - Sevdimali İsa <sevdimaliisayev_at_mail.ru>
  - Jafar <sharifov_at_programmer.net>
  - ButterflyOfFire <ButterflyOfFire_at_protonmail.com>
  - Orkhan Guliyev <orkhan_at_our.az>
  - Yusif Mmmdov <yusifmv_at_gmail.com>
- Basque
  - karrikas <karrikas_at_gmail.com>
  - hey_neken <hey_neken_at_mundurat.net>
  - iF <info_at_if-matxikote.eus>
  - aitzol berasategi <aitzol76_at_gmail.com>
- Belarusian
  - Viktar Palstsiuk <vipals_at_gmail.com>
  - Viktar Vauchkevich <victorenator_at_gmail.com>
  - cmdr.by <matusevich_at_abiatec.com>
- Bengali
  - Firoj Jaman <firojbd_at_ovi.com>
  - Nobin <nobin_at_cyberbogra.com>
  - Syed Mahbub ul Alam <syedmahbubulalam_at_gmail.com>
- Berber
- Bodo
- Bosnian
  - Bilal Ćatić <bilal.the.best_at_hotmail.com>
- Breton
  - fulup.jakez <fulup.jakez_at_ofis-bzh.org>

  - Moha684 <nahil82466_at_gmail.com>
  - Nils Van Zuijlen <nilsdu29_at_gmail.com>
- Bulgarian
  - Boyan Kehayov <bkehayov_at_gmail.com>
  - Valter Georgiev <blagynchy_at_gmail.com>
  - Valentin Mladenov <hudsonvsm_at_gmail.com>
  - P <plamen_mbx_at_yahoo.com>
  - krasimir <vip_at_krasio-valia.com>
  - stoyanster <stoyanster_at_gmail.com>
  - stanprog <stanprog_at_stanprog.com>
  - 109247019824 <stoyan_at_gmx.com>
  - Yordan Nedelchev <yordan.nedelchev_at_hotmail.com>
  - Filip Obretenov <filip.obretenovbg_at_gmail.com>
  - Ivo Peev <igpeev_at_yahoo.com>
  - <svetliok26_at_gmail.com>
- Burmese
- Catalan
  - josep constanti <jconstanti_at_yahoo.es>
  - Xavier Navarro <xvnavarro_at_gmail.com>
  - Robert Antoni Buj Gelonch <robert.buj_at_gmail.com>
  - Carles Mata <info_at_appsinet.com>
  - Omar Macías Molina <omar.maciasmolina_at_gmail.com>
  - monicagrau <monicagrau_at_gmail.com>
- Chinese (China)
  - Vincent Lau <3092849_at_qq.com>
  - Zheng Dan <clanboy_at_163.com>
  - disorderman <disorderman_at_qq.com>
  - Rex Lee <duguying2008_at_gmail.com>
  - <fundawang_at_gmail.com>
  - popcorner <memoword_at_163.com>
  - Yizhou Qiang <qyz.yswy_at_hotmail.com>
  - zz <tczzjin_at_gmail.com>
  - Terry Weng <wengshiyu_at_gmail.com>
  - whh <whhlcj_at_126.com>
  - shanyan baishui <Siramizu_at_gmail.com>
  - Vian Zhao <brovian_at_gmail.com>

  - Huang Zhiyi <hzy980512_at_126.com>
  - yangyangdaji <1504305527_at_qq.com>
  - H Zeng <zhx_at_cnzhx.net>
  - ctyzxx <ctyzxx_at_126.com>
  - doocoo <doocoo_at_163.com>
  - greensea g <gs_at_bbxy.net>
  - Lasm Gratel <lasm_gratel_at_gmail.com>
  - likyh <likyh_at_qq.com>
  - xmujay xmujay <xmujay_at_gmail.com>
  - Charles Kane <kaneawk_at_gmail.com>
  - Edward Cheng <c4150221_at_gmail.com>
  - Edward FANG <fangyd1997_at_outlook.com>
  - Ganlv <ganlvtech_at_qq.com>
  - Joseph Lee <cn.airsoftware_at_gmail.com>
  - San <zhujunsan_at_gmail.com>
  - YF <yfdyh000_at_gmail.com>
  - an wei <justregonly1_at_gmail.com>
  - jin123456bat <326550324_at_qq.com>
  - uncle_cat <jdhao_at_hotmail.com>
  - zhangmiao <myzhm_at_163.com>
- Chinese (Taiwan)
  - Albert Song <albb0920_at_gmail.com>
  - Chien Wei Lin <cwlin0416_at_gmail.com>
  - Peter Dave Hello <xs910203_at_gmail.com>
  - star <star_at_origin.club.tw>
  - joehorn <joehorn_at_gmail.com>
  - thsiao <thsiao_at_yahoo.com>
  - terrytsai123 <terrytsai123_at_hotmail.com>
  - Tony Chen <tonychen_at_finenet.com.tw>
  - xuan311 <xuan311_at_gmail.com>
  - Walter Cheuk <wwycheuk_at_gmail.com>
  - MoA Chung <honomoa_at_gmail.com>
  - kiange <kiange_at_gmail.com>
  - Ricky From Hong Kong <lamricky11_at_hotmail.com>
  - u1104003 <u1104003_at_gmail.com>
  - Chunmin Tai <taichunmin_at_gmail.com>

  - Kelvin Lee <leekalok804_at_gmail.com>
  - ncwgf <hd_at_cgsword.com>
  - ChihChnug Ma <mcc1_at_livemail.tw>
  - Chung-Lun Chiang <benck_at_benck.tw>
  - Eotones <eotones_at_gmail.com>
  - Louies <louies0623_at_gmail.com>
  - Ming Tsay <mt_at_moztw.org>
  - Nathan Wu <uuuyyttu_at_gmail.com>
  - Peter Chen <petercpg_at_gmail.com>
  - Wolf Chou <wolf168_at_gmail.com>
  - mao <mao_at_lins.fju.edu.tw>
- Colognian
  - Purodha <publi_at_web.de>
- Croatian
  - Marino <mrabach_at_gmail.com>
  - <ebe37302_at_tqosi.com>
  - Milo Ivir <mail_at_milotype.de>
  - Roby Clai <icyphoenixx_at_gmail.com>
  - Pootle server <pootle_at_cihar.com>
- Czech
  - Aleš Hakl <ales_at_hakl.net>
  - Dalibor Straka <dalibor.straka3_at_gmail.com>
  - Martin Vidner <martin_at_vidner.net>
  - Ondra Šimeček <ondrasek.simecek_at_gmail.com>
  - Jan Palider <palider_at_seznam.cz>
  - Petr Kateřiňák <petr.katerinak_at_gmail.com>
  - Petr Duda <petrduda_at_seznam.cz>
  - mixeros <mixer_at_mixercz.cz>
  - Adam Havránek <adamhavra_at_seznam.cz>
  - David Hrbáč <david_at_hrbac.cz>
  - Liška <nicefox1_at_gmail.com>
  - David Kindl <mtwango_at_gmail.com>
  - Lucie Procházková <lucieaprochazkova_at_gmail.com>
  - Martin Šich <sich.martin64_at_gmail.com>
  - Oldřich Strachota <oldrich.strachota_at_gmail.com>
  - Petr Kadlec <mormegil_at_centrum.cz>

  - ratajs <simonrataj_at_seznam.cz>
- Danish
  - Aputsia Niels Janussen <aj_at_isit.gl>
  - Dennis Jakobsen <dennis.jakobsen_at_gmail.com>
  - Jonas <jonas.den.smarte_at_gmail.com>
  - Claus Svalekjaer <just.my.smtp.server_at_gmail.com>
  - opensource <opensource_at_jth.net>
  - jacobkamphansen <jacobkamphansen_at_gmail.com>
  - Martin <Martin_at_maboni.dk>
  - thomas <thomas_at_dyhr.com>
  - hjortholm <hjortholm_at_gmail.com>
  - Morten Henrichsen <github_at_mhex.dk>
  - Peter Sone Koldkjær <rapelling_at_gmail.com>
- Dutch
  - A. Voogt <a.voogt_at_hccnet.nl>
  - dingo thirteen <dingo13_at_gmail.com>
  - Robin van der Vliet <info_at_robinvandervliet.nl>
  - Dieter Adriaenssens <ruleant_at_users.sourceforge.net>
  - Niko Strijbol <strijbol.niko_at_gmail.com>
  - Herman van Rink <rink_at_initfour.nl>
  - Bjorn Roesbeke <inbox_at_bjornroesbeke.be>
  - Arjen Brouwer <arjenjb_at_gmail.com>
  - Steven WdV <stevenwdv_at_gmail.com>
  - Robin Pepermans <robinp.1273_at_gmail.com>
  - Han Velthuis <han.velthuis_at_home.nl>
  - Herman Peeren <herman_at_yepr.nl>
  - dannybeckett <daniel.beckett_at_gmail.com>
  - theking2 <theking2_at_king.ma>
- English (United Kingdom)
  - Dries Verschuere <dries.verschuere_at_outlook.com>
  - Francisco Rocha <j.francisco.o.rocha_at_zoho.com>
  - Marc Delisle <marc_at_infomarc.info>
  - Marek Tomaštík <tomastik.m_at_gmail.com>
  - Robert Readman <robert_readman_at_hotmail.com>
  - Andi Chandler <andi_at_gowling.com>
  - M1ckm <mmmickmason2_at_gmail.com>

- Esperanto
  - Eliovir <eliovir_at_gmail.com>
  - Robin van der Vliet <info_at_robinvandervliet.nl>
- Estonian
  - Kristjan Räts <kristjanrats_at_gmail.com>
  - LiivaneLord <liivane.lord_at_mail.ee>
  - Jouni Kähkönen <asdfsdf_at_asdfasdfasdf.com>
- Filipino
- Finnish
  - Juha Remes <jremes_at_outlook.com>
  - Lari Oesch <lari_at_oesch.me>
  - Macrotus <rokkeri_at_hotmail.com>
  - Henry Heinänen <h.heinanen_at_gmail.com>
  - Ricky Tigg <ricky.tigg_at_gmail.com>
  - Jukka Penttinen <tikkakalja_at_hotmail.com>
  - Pyscowicz <janne.ertman_at_gmail.com>
  - Daniel Linjama <daniel_at_linjama.com>
  - Elias Kosunen <elias.kosunen_at_gmail.com>
  - Petri Salo <petri.salo_at_gmail.com>
  - Valtteri Laitinen <valtteri.laitinen_at_gmail.com>
  - kajouni <kajouni_at_gmail.com>
- French
  - Marc Delisle <marc_at_infomarc.info>
  - Olivier Humbert <trebmuh_at_tuxfamily.org>
  - tmtisfree <tmtisfree_at_free.fr>
  - guilhem.h <guilhem.h_at_free.fr>
  - Mathieu Terroba <mathieu.terroba_at_gmail.com>
  - Simon Picot <simonpicot06_at_gmail.com>
  - Adam Magnier <adam_at_magnier.io>
  - Jean-Noël AVILA <jn.avila_at_free.fr>
  - olivier.tetard <olivier.tetard_at_miskin.fr>
  - Jocelyn Flament <jocelyn.flament_at_gmail.com>
  - Marc-Antoine Thevenet <mat_at_idimweb.com>
  - Carlos Ferreira <c.ferreira_at_acsiiweb.com>
  - Cindy Dallaire <c.dallaire93_at_gmail.com>
  - CÃ©dric Corazza <cedric.corazza_at_wanadoo.fr>

  - Raphaël Barman <raphdu57_at_gmail.com>
  - kjo-sdds <kjo_at_domo-supply.com>
  - Hugues Peccatte <hugues.peccatte_at_gmail.com>
  - Julien ITARD <julienitard_at_gmail.com>
  - Nathan <bonnemainsnathan_at_gmail.com>
  - Rajekevin DOUREPOULLE <rajekevin_at_hotmail.fr>
- Frisian
  - Robin van der Vliet <info_at_robinvandervliet.nl>
- Galician
  - Xosé Calvo <xosecalvo_at_gmail.com>
  - frandieguez <fran.dieguez_at_mabishu.com>
  - Julio Guerra <xullo123_at_hotmail.com>
  - inter981 <inter981_at_gmail.com>
- Georgian
  - Sulkhani Ninidze <sulxani.ninidze_at_hotmail.com>
  - Temuri Doghonadze <temuri.doghonadze_at_gmail.com>
- German
  - Julian Ladisch <github.com-t3if_at_ladisch.de>
  - Jan Erik Zassenhaus <jan.zassenhaus_at_jgerman.de>
  - Lasse Goericke <lasse_at_mydom.de>
  - Matthias Bluthardt <matthias_at_bluthardt.org>
  - Michael Koch <michael.koch_at_enough.de>
  - Ann + J.M. <phpMyAdmin_at_ZweiSteinSoft.de>
  - <pma_at_sebastianmendel.de>
  - Phillip Rohmberger <rohmberger_at_hotmail.de>
  - Hauke Henningsen <sqrt_at_entless.org>
  - mrbendig <mrbendig_at_mrbendig.com>
  - torsten.funck <torsten.funck_at_googlemail.com>
  - Sven Strickroth <email_at_cs-ware.de>
  - typo3 <typo3_at_dirk-weise.de>
  - mynetx <mynetx_at_gmx.de>
  - osw <osw_at_ldism.de>
  - minichip <holger_at_ronecker.com>
  - Frank TheRabbit <frank.the.rabbit_at_gmx.net>
  - sven-cihar.com <sven-cihar.com_at_incase.de>
  - ssantos <ssantos_at_web.de>

  - Philip Blatter <cihar_at_jamit.de>
  - ch <ch_at_rech.co>
  - Patrik Kernstock <patschimail_at_gmail.com>
  - me <me_at_michaelkeck.de>
  - Microgamer <microgamer.developer_at_gmail.com>
  - franz.georg <franz.georg_at_neurieser.eu>
  - Elvio Petillo <elvio.petillo_at_nanowaris.com>
  - canin <canin_at_in.com>
  - Alpix <contact_at_alpix.eu>
  - Christian Nagelmeier <cnagelmeier_at_gmail.com>
  - Florian Knodt <git_at_adlerweb.info>
  - Justin Nogossek <justmegaliga10000_at_gmail.com>
  - M393 <maximilian.kroeg_at_geocept.com>
  - BO41 <lukasw41_at_gmail.com>
  - Luc <some_physics_at_live.com>
  - Markus Staab <maggus.staab_at_googlemail.com>
  - MoonE <maxi_kroeg_at_web.de>
  - Albrecht Köhnlein <weblate_at_bestof1983.de>
  - Axel Rindle <axel.rindle_at_gmx.de>
  - Dominik Geyer <dominik.geyer_at_gmx.de>
  - Hendrik Michaelsen <weblate_at_cryck.me>
  - J.M. Rütter <jm_at_jublo.net>
  - Jörn Gorres <joern_at_gorres.com>
  - M. F <mfwarburg_at_googlemail.com>
  - Marc <marc.brodt+weblate_at_frueher-war-alles-besser.com>
  - Niemand Jedermann <predatorix_at_web.de>
  - Ramona Hapke <ramona.hapke_at_gmail.com>
  - Tobias Bannert <tobannert_at_gmail.com>
  - Tobias Groza <tooobi14_at_gmail.com>
- Greek
  - <papaz_p_at_yahoo.com>
  - Michalis <michalisntovas_at_yahoo.gr>
- Gujarati
- Hebrew
  - Moshe Harush <mmh15_at_windowslive.com>
  - Yaron Shahrabani <sh.yaron_at_gmail.com>

  - Eyal Visoker <visokereyal_at_gmail.com>
  - Natanel <natanelgemert_at_gmail.com>
  - zippoxer <zippoxer_at_gmail.com>
  - Efraim Flashner <efraim.flashner_at_gmail.com>
  - Yuri German <yuri198_at_gmail.com>
- Hindi
  - Atul Pratap Singh <atulpratapsingh05_at_gmail.com>
  - Yogeshwar <charanyogeshwar_at_gmail.com>
  - Deven Bansod <devenbansod.bits_at_gmail.com>
  - Kushagra Pandey <kushagra4296_at_gmail.com>
  - Nisarg Jhaveri <nisargjhaveri_at_gmail.com>
  - Roohan Kazi <roohan_cena_at_yahoo.co.in>
  - Yugal Pantola <yug.scorpio_at_gmail.com>
  - u4663530 <u4663530_at_anu.edu.au>
  - rsedwardian <rsedwardian_at_gmail.com>
  - deadefy <deadefy_at_nepalimail.com>
  - Yogendra Singh Shekhawat <dynamicarea_at_gmail.com>
  - Ghanshyam Bagul <ghanshyambagul_at_gmail.com>
  - Siddhesh Rane <kingsid911_at_gmail.com>
  - rajnikant sharma <rajtrivedi2001_at_gmail.com>
  - Rajat Sharma <rajatsharmaaero_at_gmail.com>
  - Yash Kothari <yashkothari1000_at_gmail.com>
- Hungarian
  - Akos Eros <erosakos02_at_gmail.com>
  - Dániel Tóth <leedermeister_at_gmail.com>
  - Szász Attila <undernetangel_at_gmail.com>
  - Balázs Úr <urbalazs_at_gmail.com>
  - gergo314 <gergo314_at_gmail.com>
  - slygyor <slygyor_at_gmail.com>
  - Róbert Nagy <vrnagy_at_gmail.com>
  - G. S <somogyig_at_gmail.com>
  - KAMI <kami911_at_gmail.com>
  - Ádám Papp-Kuster <pkadam_at_kuster.hu>
  - Dr. Nagy Elemér Károly <eknagy_at_omikk.bme.hu>
  - Krisztián Patai <pataikrisztian_at_gmail.com>
  - Marczis István <marczisi_at_yahoo.com>

- Igbo
  - CHINONSO <chinonso_patrick_at_yahoo.com>
- Indonesian
  - Deky Arifianto <Deky40_at_gmail.com>
  - Andika Triwidada <andika_at_gmail.com>
  - Dadan Setia <da2n_s_at_yahoo.co.id>
  - Dadan Setia <dadan.setia_at_gmail.com>
  - Yohanes Edwin <edwin_at_yohanesedwin.com>
  - Fadhiil Rachman <fadhiilrachman_at_gmail.com>
  - Benny <tarzq28_at_gmail.com>
  - Tommy Surbakti <tommy_at_surbakti.net>
  - Zufar Fathi Suhardi <zufar.bogor_at_gmail.com>
  - Azhari Harahap <azhari.harahap_at_yahoo.com>
  - aris_feryanto <aris_feryanto_at_yahoo.com>
  - udienz <udienz_at_ubuntu.com>
  - haze_skw <julungpujut_at_ymail.com>
  - udin.mx <udin.mx_at_gmail.com>
  - Zahid Rizky Fakhri <zahidrizkyfakhri_at_gmail.com>
  - aburamesino <aburamesino_at_gmail.com>
  - uringinteristi <uringinteristi_at_gmail.com>
  - jack.hakim <jack.hakim_at_yahoo.com>
  - Chandra Chou <developerchan1_at_gmail.com>
  - Imam Ilham Khawarizma <khrzm_at_tuta.io>
  - Sukma Budi <kanjengdemank_at_yahoo.com>
  - Eurecode <jason.yonathan.h_at_gmail.com>
  - Ivan Lanin <ivan_at_lanin.org>
  - Muhammad Rifqi Priyo Susanto <muhammadrifqipriyosusanto_at_gmail.com>
  - Theodore Fabian Rudy <dorerudy_at_gmail.com>
  - Hizkia Felix <hizkifw_at_gmail.com>
  - SacredWKnight <yudhis.sumardiono_at_gmail.com>
  - Andreas Lukita <ffvaand_at_gmail.com>
  - Ellianto Sarono Putro <elliantosarono.p_at_gmail.com>
  - Mochammad Nur Afandi <localanu_at_gmail.com>
  - Muhammad Athallah <mhd.athallah_at_gmail.com>
  - Neoubs <corneliuscheka_at_gmail.com>
  - Phillips Zhu <phizzarfernos_at_gmail.com>

  - Prajna Prasetya <prajnapras19_at_gmail.com>
  - Steven Rachman <steven.rachman_at_gmail.com>
  - eisenhaus335 <greenzone332_at_outlook.com>
  - fidella <fidellawi_at_gmail.com>
  - Ahnaf Hadi Fathulloh <ahnafhadi_at_gmail.com>
  - Arie Kurniawan <hubungi.aja_at_gmail.com>
  - Holiq Ibrahim <holiq.ibrahim376_at_gmail.com>
  - Maharaj Fawwaz A. Yusran <faww4zintelgent4_at_gmail.com>
  - Muhammad Rafly Andrianza <luphieanza_at_gmail.com>
  - Prasna Lukito <prasnakuxing_at_gmail.com>
  - Reksa Suhud Tri Atmojo <reksasuhud_at_yahoo.co.id>
  - Surya Widi <neversleepman_at_tfwno.gf>
  - Yogi Erka Julyansa Putra <erka.j.p_at_gmail.com>
  - Zoisom <p.nestiawan_at_gmail.com>
  - Zulfikar <zulfikar97_at_gmail.com>
  - anakcoding <m.hafizh.bayhaqi_at_gmail.com>
  - ekickx <mujahidmasadepan_at_gmail.com>
- Interlingua
  - Giovanni Sora <g.sora_at_tiscali.it>
- Italian
  - Francesco Saverio Giacobazzi <francesco.giacobazzi_at_ferrania.it>
  - Marco Pozzato <ironpotts_at_gmail.com>
  - Stefano Martinelli <stefano.ste.martinelli_at_gmail.com>
  - Fabio Fantoni <fantonifabio_at_tiscali.it>
  - Giovanni Uccio <giovanni.uccio_at_gmail.com>
  - rebeluca <rebeluca_at_gmail.com>
  - Manuel Dalla Lana <endelwar_at_aregar.it>
  - Matteo Regazzi <mregazzi_at_tiscali.it>
  - Massimiliano Caniparoli <massic80_at_gmail.com>
  - Claudio Maradonna <claudio_at_unitoo.pw>
  - gliporace <gliporace_at_gmail.com>
  - Benito Alessandrino <bennygames.yt_at_gmail.com>
  - J. Lavoie <j.lavoie_at_net-c.ca>
  - Matteo Gheza <matteo.gheza07_at_gmail.com>
- Japanese
  - k725 <alexalex.kobayashi_at_gmail.com>

  - Hiroshi Chiyokawa <hiroshi.chiyokawa_at_gmail.com>
  - Masahiko HISAKAWA <orzkun_at_ageage.jp>
  - worldwideskier <worldwideskier_at_yahoo.co.jp>
  - Yuichiro <yuichiro_at_pop07.odn.ne.jp>
  - Joshua PowellNishiyama <nzjpnboy_at_outlook.com>
  - Masahiro Fujimoto <mfujimot_at_gmail.com>
  - Masahiro Nishi <grooversmail_at_gmail.com>
  - Daigo Hamasaki <daigo.hamasaki.16_at_gmail.com>
  - Kyotaro Iijima <kyotaro.eyes_at_gmail.com>
  - pralin <itgo1004_at_gmail.com>
  - yanagimoto <yanagimoto_at_klink.co.jp>
  - Eshin Kunishima <ek_at_esh.ink>
  - Sandra Swift <nolamiller1203+weblate_at_gmail.com>
  - Fujiwara Software <fujisoft_at_gmail.com>
  - yutk <ekr48ktq_at_gmail.com>
  - Yuki Shira <shirayuking_at_gmail.com>
- Kabyle
  - Belkacem Mohammed <belkacem77_at_gmail.com>
- Kannada
  - Robin van der Vliet <info_at_robinvandervliet.nl>
  - Shameem Ahmed A Mulla <shameem.sam_at_gmail.com>
- Kazakh
  - Berikbol Zharylkassyn <berikbolbeko_at_gmail.com>
  - WWWesten <wwwesten_at_gmail.com>
  - Abdurahman Taskibaev <tas362_at_mail.ru>
  - Bauyrzhan <bauyrzhan.maksot_at_mail.ru>
- Khmer
  - Sovichet Tep <sovichet.tep_at_gmail.com>
  - <royalpokno68_at_gmail.com>
  - SeyhaLite <sok123230_at_gmail.com>
- Korean
  - Bumsoo Kim <bskim45_at_gmail.com>
  - Kyeong Su Shin <cdac1234_at_gmail.com>
  - Dongyoung Kim <dckyoung_at_gmail.com>
  - Myung-han Yu <greatymh_at_gmail.com>
  - JongDeok <human.zion_at_gmail.com>

- Yong Kim <kim_at_nhn.com>
- <kyungjun2_at_gmail.com>
- Seongki Shin <skshin_at_gmail.com>
- Yoon Bum-Jong <virusyoon_at_gmail.com>
- Koo Youngmin <youngminz.kr_at_gmail.com>
- manyfun <manyfun7_at_gmail.com>
- cihar <cihar_at_nvyu.net>
- Deminoth Runo <deminoth_at_naver.com>
- Chung-Ook Lee <hantip_at_gmail.com>
- Yungu Kim <crimsonpi_at_gmail.com>
- joungkyun <joungkyun_at_yahoo.com>
- SDSkyKlouD <koongchi135_at_gmail.com>
- Dong-bum Kim <dongbum_at_me.com>
- riumi <auddlk_at_qq.com>
- Gihun Ham <progh2_at_gmail.com>
- Tae-rok Hwang <hwangti_at_hwangti.kr>
- Lee Joon Haeng <calmnoia_at_gmail.com>
- Gyeongsu Han <hansim_at_gmail.com>
- Yong Kim (Neatnet) <neatnet_at_gmail.com>
- han goo Kang <kgcrom_at_hotmail.com>
- kim8ccf3a4116ec4691 <kim_at_yong.biz>
- Deokyun Yu <i_at_saintjr.com>
- Gyu-sun Youm <omniavinco_at_gmail.com>
- Hyun-Sung Yun <bemax38_at_gmail.com>
- <junwon1994_at_gmail.com>
- <weblate_at_waitfor.net>
- Bob <doodoori2_at_gmail.com>
- Chan Je Park <ejnahc_at_gmail.com>
- Hanson String <miss30kr55_at_gmail.com>
- Jin-oh Kang <jinoh67_at_gmail.com>
- Paul Polidoro <leedshs_at_gmail.com>
- dong heonhui <spamhunhee_at_gmail.com>
- s.c. yoo <dryoo_at_live.com>
- suhyuk kim <kimsuhyuk_at_gmail.com>
- <shga89_at_naver.com>
- <rctq_at_paran.com>

  - <9992551_at_xfp.kr>
  - <bayleys_at_naver.com>
- Kurdish
- Kurdish (Central)
  - renwar kurd <renwarkurd_at_yahoo.com>
  - Haval Abdulkarim <haval.abdulkarim_at_gmail.com>
  - Jwtiyar Nariman <jwtiyar_at_gmail.com>
  - Kamyar Sec <kamofanar_at_gmail.com>
  - Ranja Hseen <ranjahseen2_at_gmail.com>
  - Spider Linux <hacker.kurda_at_gmail.com>
  - dilan kurdistani <dilan.gilli_at_gmail.com>
- Kurdish Sorani
  - Alan Hilal <alan.hilal94_at_gmail.com>
  - Aso Naderi <aso.naderi_at_gmail.com>
  - muhammad <esy_vb_at_yahoo.com>
  - Zrng Abdulla <zhyarabdulla94_at_gmail.com>
- Kyrgyz
  - Kylychbek Turdakunov <kylychbek_tk_at_yahoo.com>
  - Bahoriddin Dushabayev <bahoriddin_at_gmail.com>
  - Daniyar Matraimov <danmaz_at_mail.ru>
- Lao
  - BoneNI <bounkirdni_at_gmail.com>
- Latvian
  - Latvian TV <dnighttv_at_gmail.com>
  - Edgars Neimanis <edgarsneims5092_at_inbox.lv>
  - Ukko <perkontevs_at_gmail.com>
  - (./) <coool_at_mail.lv>
  - Māris <weblate_at_netparks.lv>
  - Janis Reinsons <fixed2009_at_gmail.com>
- Limburgish
  - Robin van der Vliet <info_at_robinvandervliet.nl>
- Lithuanian
  - Vytautas Motuzas <v.motuzas_at_gmail.com>
  - Kęstutis <forkik_at_gmail.com>
  - edgaras.janusauskas <edgaras.janusauskas_at_gmail.com>
  - Rytis SlatkeviÄius <rytis.s_at_gmail.com>

  - Dovydas <dovy.buz_at_gmail.com>
  - Justas Vilimas <justas_at_vilimas.eu>
  - Kornelijus Tvarijanavičius <kornelitvari_at_protonmail.com>
- Macedonian
  - Kristijan Fremen Velkovski <me_at_krisfremen.com>
  - sjanevski <sjanevski_at_gmail.com>
  - Daniel Dimitrov <dimitrov.daniel_at_hotmail.com>
  - Dragan Zlatkovski <dragan_natalia_at_yahoo.com>
  - Nebojsa Tausanov <n.tausanov_at_gmail.com>
- Malay
  - Amir Hamzah <amir.overlord666_at_gmail.com>
  - diprofinfiniti <anonynuine-999_at_yahoo.com>
  - Ahmad Zulhilmi Idris <ahmadzulhilmiidris_at_gmail.com>
- Malayalam
  - sadik.khalid <sadik.khalid_at_gmail.com>
  - GIMMY <thozhalay_at_gmail.com>
- Mongolian
  - yondonjamts rentsendorj <yontkoo_at_yahoo.com>
  - Turtuvshin Byambaa <toroo.byamba_at_gmail.com>
- Nepali
  - Nabin Ghimire <nnabinn_at_hotmail.com>
- Norwegian Bokmål
  - Børge Holm-Wennberg <borge947_at_gmail.com>
  - Tor Stokkan <danorse_at_gmail.com>
  - Espen Frøyshov <efroys_at_gmail.com>
  - Kurt Eilertsen <kurt_at_kheds.com>
  - Christoffer Haugom <ph3n1x.nobody_at_gmail.com>
  - Sebastian <sebastian_at_sgundersen.com>
  - Tomas <tomas_at_tomasruud.com>
  - sven.erik.andersen <sven.erik.andersen_at_gmail.com>
  - Allan Nordhøy <epost_at_anotheragency.no>
  - Stian Berg <mail.to.stian_at_gmail.com>
  - Nicholas Arnesen <baretester_at_live.no>
  - Asle Ommundsen <aommundsen_at_gmail.com>
  - Axel Magnus Gaasø <axel.gaaso_at_gmail.com>
  - Master3395 <kimskorgenes_at_hotmail.com>

  - Erik Hepsø <hepso_at_hoved.org>
  - Kai-Ove Finvold <translate_at_okai.no>
  - Magnus Vinsjevik <odevinsj_at_gmail.com>
  - Ronny André Løkken <rlo012_at_post.uit.no>
  - jasasa <jarlesa_at_gmail.com>
  - paalfe <paalfe_at_gmail.com>
- Norwegian Nynorsk
  - Christoffer Hjeltnes Støle <cst029_at_uib.no>
- Persian
  - ashkan shirian <ashkan.shirian_at_gmail.com>
  - HM <goodlinuxuser_at_chmail.ir>
  - Ashiyane Digital Security Team <HeXa.ashiyane_at_gmail.com>
  - ahmad_usa2007 <ahmad_usa2007_at_yahoo.com>
- Polish
  - Andrzej <andrzej_at_kynu.pl>
  - Przemo <info_at_opsbielany.waw.pl>
  - Krystian Biesaga <krystian4842_at_gmail.com>
  - Maciej Gryniuk <maciejka45_at_gmail.com>
  - Michał VonFlynee <vonflynee_at_gmail.com>
  - Stanisław Krukowski <stankruk_at_neostrada.pl>
  - Marcin Kozioł <lord_dark_at_wp.pl>
  - fungms <fungms_at_o2.pl>
  - Bartosz Feński <fenio_at_debian.org>
  - tauruss85 <tauruss85_at_gmail.com>
  - blizni <blizni_at_konto.pl>
  - Piotr Przybylski <piotrprz_at_gmail.com>
  - Kozioł Marcin <koziol.martin_at_gmail.com>
  - Szymon Burnejko <onufry7_at_gmail.com>
  - piecu <piecu_at_go2.pl>
  - sebastians17 <sebastians117.ss_at_gmail.com>
  - Bartosz Pazoła <mmmalfc_at_gmail.com>
  - Michal Biesiada <blade-14_at_o2.pl>
  - Sebastian Weremczuk <weremczuksebastian_at_gmail.com>
  - Adrian Wanic <adrianwanic_at_gmail.com>
  - Andrzej Pauli <andrzej.pauli_at_gmail.com>
  - Chaos <haos.engine_at_gmail.com>

  - Jarosław Głowacki <glowacki_at_europa.pl>
  - Kuba Niewiarowski <jakub_at_niewiarowski.it>
  - Marta moja <marta.mojapoczta1_at_onet.pl>
  - Plajer <worthplay.pt_at_onet.pl>
  - Lisek (Damian Bartyś) <damianbart22_at_gmail.com>
  - Marek Skiba <github_at_pjona.net>
  - Piotr Kasprzyk <ciri_at_ciri.pl>
  - Tomasz Nowiński <spamgrinder_at_o2.pl>
  - bladerunn3r <tkrzywonos_at_gmail.com>
  - johnny1029 <jkste07_at_gmail.com>
- Portuguese
  - Alexandre Badalo <alexandre.badalo_at_sapo.pt>
  - João Rodrigues <geral_at_jonilive.com>
  - Pedro Ribeiro <p.m42.ribeiro_at_gmail.com>
  - Sandro Amaral <sandro123iv_at_gmail.com>
  - JoaoTMDias <contacto_at_joaodias.me>
  - dobreira <dobreira_at_gmail.com>
  - morsa.h <morsa.h_at_gmail.com>
  - Filipe Batista <geral_at_filipebatista.pt>
  - Salvador Domingues <salvadordomingues_at_gmail.com>
  - Júlio Sebastião <j38600_at_gmail.com>
  - Nuno Ferreira <numagf_at_gmail.com>
  - NunoCruz <ncruzdesign_at_gmail.com>
  - Vítor Martins <vjmartins_at_sapo.pt>
  - efgpinto <efgpinto_at_gmail.com>
  - Jonadabe PT <jonadabe_at_hotmail.com>
  - SC <lalocas_at_protonmail.com>
  - ldplopes <ldplopes_at_hotmail.com>
  - Diogo Santos <djsantost_at_gmail.com>
  - Eduardo Abreu <eduardextreme_at_hotmail.com>
  - Rui Simoes <ruisimoes.ouca_at_gmail.com>
  - Tony Nascimento <gtonynasc_at_gmail.com>
  - Beatriz Magalhães <mbeatrizmagalhaes_at_gmail.com>
  - Edgar Pereira <artifex_at_sapo.pt>
  - Edu Rib PT <edurib.pt_at_gmail.com>
  - José Camilo Fernandes Coelho <camilocoelho93_at_gmail.com>

  - Luis Esteves <gigapoint_at_netcabo.pt>
  - Marco Filipe Ferreira Fidalgo <mardalgo_at_gmail.com>
  - Paulo Lopes Duarte <paulolduarte_at_hotmail.com>
  - Renan Souza do Nascimento <renan.sn_at_icloud.com>
  - Rodrigo Felix <cuca.baratas_at_hotmail.com>
  - Tiago Gameiro <tyhaguh_at_hotmail.com>
  - Tiago Rozeira <tiagorozeira_at_outlook.pt>
- Portuguese (Brazil)
  - Alex Rohleder <alexrohleder96_at_outlook.com>
  - bruno mendax <brunomendax_at_gmail.com>
  - Danilo GUia <danilo.eng_at_globomail.com>
  - Douglas Rafael Morais Kollar <douglas.kollar_at_pg.df.gov.br>
  - Douglas Eccker <douglaseccker_at_hotmail.com>
  - Ed Jr <edjacobjunior_at_gmail.com>
  - Guilherme Souza Silva <g.szsilva_at_gmail.com>
  - Guilherme Seibt <gui_at_webseibt.net>
  - Helder Santana <helder.bs.santana_at_gmail.com>
  - Junior Zancan <jrzancan_at_hotmail.com>
  - Luis <luis.eduardo.braschi_at_outlook.com>
  - Marcos Algeri <malgeri_at_gmail.com>
  - Marc Delisle <marc_at_infomarc.info>
  - Renato Rodrigues de Lima Júnio <renatomdd_at_yahoo.com.br>
  - Thiago Casotti <thiago.casotti_at_uol.com.br>
  - Victor Laureano <victor.laureano_at_gmail.com>
  - Vinícius Araújo <vinipitta_at_gmail.com>
  - Washington Bruno Rodrigues Cav <washingtonbruno_at_msn.com>
  - Yan Gabriel <yansilvagabriel_at_gmail.com>
  - wiltave <wiltave_at_gmail.com>
  - emerson4br <emerson4br_at_gmail.com>
  - erickdeoliveiraleal <erickdeoliveiraleal_at_gmail.com>
  - mariemidias <mariemidias_at_yahoo.com.br>
  - gilberto dos santos alves <gsavix_at_gmail.com>
  - rds_ralison <rds_ralison_at_yahoo.com.br>
  - vitorpc.18 <vitorpc.18_at_gmail.com>
  - Roberto Mathias <betorsm_at_gmail.com>
  - fabiobucior <fabiobucior_at_gmail.com>

- Julio Cesar Zuppa <juliozuppa_at_gmail.com>
- eloizio <eloisalgado_at_gmail.com>
- teunome <teunome_at_gmail.com>
- johnnyseabra <johnnyseabra_at_gmail.com>
- V4g_Br4Ck3r <vag_bracker_at_hotmail.com>
- Rodrigo Souza <rodrigo.chrome_at_live.com>
- Flavio Lisboa <flavio.lisboa_at_fgsl.eti.br>
- Jose Ivan Bezerra Vilarouca Filho <joseivan_at_lavid.ufpb.br>
- George Bezerra <georgelione_at_gmail.com>
- WillBa <widelan10_at_gmail.com>
- Alexsandro Preis Dubinski <alexsandroeco_at_gmail.com>
- André Luiz Girol <andregirol_at_yahoo.com.br>
- Anderson Diego Kulpa Fachini <anderson.dkfachini_at_gmail.com>
- William Bachion <william_at_bachiondesign.com>
- Everton R <everton_at_tconibo.org>
- Guilherme Rocha <guilherme_at_candiba.net>
- Rafael Ferreira <rafael.f.f1_at_gmail.com>
- Daniel Miloca <danielmiloca_at_gmail.com>
- Mauricio Bastos <msbmail_at_gmail.com>
- Airton Torres <airton.torres_at_gmail.com>
- Gustavo de Oliveira Silva <diguser_at_gmail.com>
- Lucas David <lucasolivdavid_at_gmail.com>
- Luis Eduardo Braschi <herrcasper_at_gmail.com>
- RD WebDesign <weblate_at_rdwebdesign.com.br>
- cadusk <cadusk_at_yahoo.com.br>
- Alfredo Oliveira <freddobr_at_gmail.com>
- Daniel Palmeira Huanca <daniel46758_at_hotmail.com>
- Douglas dreginatto <douglas_at_reginatto.com>
- Edie Johnny <edie.eu_at_gmail.com>
- Marcelo Altmann <altmannmarcelo_at_gmail.com>
- Pedro Moreira <ikkinet_at_gmail.com>
- Ray Santos <ray.smgl_at_gmail.com>
- Renato dos Santos <shazaum_at_gmail.com>
- Rodrigo Moreira <digaumsmile_at_gmail.com>
- Rogerio Marques <rogerio_at_algoincomum.com.br>
- mateusfbi <mateusfbi_at_gmail.com>

  - popinha13 <apolonio.serafim_at_hotmail.com>
  - Alexander Luiz Marinho <apaetmk_at_allva.com.br>
  - Bruno Henrique <bruno.henrique_at_ceepcascavel.com.br>
  - Bruno Rafael <brunorafael_at_oi.com.br>
  - Diego Bemquerer Castro <dbc_5_at_yahoo.com.br>
  - Guilherme <guilherme_at_rigon.info>
  - Guilherme Schmidt <skymidt_at_gmail.com>
  - Guto Rocha <grgutorocha_at_gmail.com>
  - Hizer Cache <cache_at_aol.com.br>
  - Israel Torres <israeltorres29_at_hotmail.com>
  - JCJesus Lima <jcjlima_at_gmail.com>
  - João Carlos Barsan <joao_barsan_at_hotmail.com>
  - Kenzo Martins Matuzawa <kenzo.matuzawa_at_gmail.com>
  - Keven do Nascimento Carneiro <kevennascimento_at_ovi.com>
  - Lucius Gaitán <luciuspgc_at_gmail.com>
  - Miro Baía <adm_at_pescweb.com>
  - Pedro Travassos <ptravassos_at_gmail.com>
  - Ricardo Crivelli <ricardocrivelli_at_gmail.com>
  - Saulo Castro <saulocastrolp_at_gmail.com>
  - Sebastiao Rocha <rocha_at_abracops.info>
  - Sergio Martins <inove_at_live.com.pt>
  - Thales Carpi <thales.carpi_at_gmail.com>
  - Tiago França EJessica <tiago_pvo_at_hotmail.com>
  - Vinicius Moreira (Vm Creative) <vinnisao13_at_gmail.com>
  - Yury Vidal <yuryvidal_at_gmail.com>
  - ronniery borges <thenewodre_at_gmail.com>
- Punjabi
  - Robin van der Vliet <info_at_robinvandervliet.nl>
  - Satnam S Virdi <pika10singh_at_gmail.com>
  - gurjit dhillon <dhillon616_at_gmail.com>
  - Hidev Corp <hidevcorp_at_gmail.com>
- Romanian
  - Alex <amihaita_at_yahoo.com>
  - Costel Cocerhan <costa1988sv_at_gmail.com>
  - Ion Adrian-Ionut <john_at_panevo.ro>
  - Raul Molnar <molnar.raul_at_wservices.eu>

  - Stefan Murariu <stefan.murariu_at_yahoo.com>
  - alexukf <alex.ukf_at_gmail.com>
  - ssuceveanu <ssuceveanu_at_yahoo.com>
  - Dan Caragea <dan_caragea_at_yahoo.com>
  - ronaldinia <ronaldinia_at_yahoo.com>
  - Alecsandru Prună <alecsandrucpruna_at_gmail.com>
  - Nicu Plai <nicu.plai_at_gmail.com>
  - S.C. MEGAHOST S.R.L <admin_at_megahost.md>
  - Pham Andrei <pham.andrei4_at_gmail.com>
  - Bogdan Ciobaca <ciobaca190_at_hotmail.com>
  - Emanuel <emanuel12m_at_gmail.com>
  - Internationalization Ro <i18nro_at_yahoo.com>
  - tatuci <tatuci_at_gmail.com>
  - Flavius Nopcea <domnulnopcea_at_gmail.com>
  - Oasisone Doe <oasisontherun_at_gmail.com>
  - Sergiu Bivol <sergiu_at_ase.md>
  - Vlăduț Ilie <vladilie94_at_gmail.com>
- Russian
  - Andrey Aleksanyants <aaleksanyants_at_yahoo.com>
  - <ddrmoscow_at_gmail.com>
  - Robin van der Vliet <info_at_robinvandervliet.nl>
  - <khomutov.ivan_at_mail.ru>
  - Alexey Rubinov <orion1979_at_yandex.ru>
  - <salvadoporjc_at_gmail.com>
  - Egorov Artyom <unlucky_at_inbox.ru>
  - Victor Volkov <hanut_at_php-myadmin.ru>
  - Andrei Stepanov <adem4ik_at_gmail.com>
  - Alex Smirnov <alex-smirnov_at_mail.ru>
  - subo <subo098_at_gmail.com>
  - <genkaok_at_yandex.ru>
  - pitchblack <pitchblack_at_mail.ru>
  - Andrey Prokopenko <aprk_at_ukr.net>
  - Artem <KovalevArtem.ru_at_gmail.com>
  - AHOHNMYC <lqwh2h2cwa_at_protonmail.com>
  - Alex Vega <semtiko_at_gmail.com>
  - Val Bancer <valerij.bancer_at_gmail.com>

  - Vladimir Belozyorov <vladimir.belozyorov_at_gmail.com>
  - Vladimir Travkin <travkinvladimir_at_gmail.com>
  - Wolterhon <hotmottot.1_at_gmail.com>
  - klin.enot <klin.enot_at_gmail.com>
  - <artem_ibatullin_at_mail.ru>
- Réunion Creole
- Serbian
  - Smart Kid <kidsmart33_at_gmail.com>
  - Vojislav Pavić <vpavic_at_gmail.com>
  - Sasa Kostic <sasha.kostic_at_gmail.com>
  - Vladimir Tošić <vtosic_at_gmail.com>
- Sinhala
  - Madhura Jayaratne <madhura.cj_at_gmail.com>
  - modz <modisha.jay_at_gmail.com>
  - HelaBasa <R45XvezA_at_protonmail.ch>
- Slovak
  - Martin Lacina <martin_at_whistler.sk>
  - Patrik Kollmann <parkourpotex_at_gmail.com>
  - Jozef Pistej <pistej2_at_gmail.com>
  - ViktorJezek <ViktorJezek_at_email.cz>
  - Peter Rosa <peter.rosa_at_pro.sk>
  - Michal Dobsovic <michal_at_dobsovic.eu>
  - Ajo van Opeain <ajo.opeain_at_gmail.com>
  - worm6666 <worm6666_at_gmail.com>
- Slovenian
  - Domen <mitenem_at_outlook.com>
  - dbc334 <dbc334_at_gmail.com>
- Spanish
  - Daniel Hinostroza, MD <phpmyadmin_at_cerebroperiferico.com>
  - Luis García Sevillano <floss.dev_at_gmail.com>
  - Franco <fulanodetal.github1_at_openaliasbox.org>
  - Luis Ruiz <luisan00_at_hotmail.com>
  - Macofe <macofe.languagetool_at_gmail.com>
  - Matías Bellone <matiasbellone+weblate_at_gmail.com>
  - Rodrigo A. <ra4_at_openmailbox.org>
  - FAMMA TV NOTICIAS MEDIOS DE CO <revistafammatvmusic.oficial_at_gmail.com>

  - Ronnie Simon <ronniesimonf_at_gmail.com>
  - davidbl06 <davidbl06_at_gmail.com>
  - gaspy <gaspy_at_totaki.com>
  - javipas <javipas_at_gmail.com>
  - Adolfo Jayme Barrientos <fitoschido_at_gmail.com>
  - Alvaro Enrique Ruano <alvaro.ruano90_at_outlook.com>
  - Salvador Peña <salvadorp74_at_hotmail.com>
  - Cristian Alexander Avila González <ag089222_at_gmail.com>
  - Guillermo Lisotti <guillermo.lisotti_at_gmail.com>
  - Laura Arjona Reina <larjona_at_larjona.net>
  - jorge jansen abreu <condecalifornia_at_hotmail.com>
  - Gabriela Solis <gaby_ta_sol_at_hotmail.com>
  - Luis Méndez Alejo <gnumax_at_gmail.com>
  - Luis45ccs <luis45ccs_at_hotmail.com>
- Swedish
  - Anders Jonsson <anders.jonsson_at_norsjovallen.se>
  - stefan <stefan_at_inkopsforum.se>
  - Daniel Nylander <yeagersthlm_at_gmail.com>
  - Jerry Gullstrand <gullstrand.jerry_at_gmail.com>
  - Erik Sundin <esundin_at_miman.biz>
- Tamazight (Central Atlas)
  - Hakim Oubouali <hakim.oubouali.skr_at_gmail.com>
- Tamil
  - <GANESHTHEONE_at_gmail.com>
  - Achchuthan Yogarajah <achch1990_at_gmail.com>
  - Rifthy Ahmed <rifthy456_at_gmail.com>
  - <anishprabu.t_at_gmail.com>
  - ysajeepan <ysajeepan_at_live.com>
  - sutharshan02 <sutharshan02_at_gmail.com>
  - <saskumar_at_hotmail.com>
  - jsgrrc <jsgrrc_at_gmail.com>
  - Lakshmanan M <send2lakshman_at_gmail.com>
  - <tamilneram247_at_gmail.com>
  - Gladson Samuel Stephen <samuels.gladson_at_hotmail.com>
  - Rajkumar Ramadoss <lionrajkumar_at_gmail.com>
- Tatar

- Telugu
  - veeven <veeven_at_gmail.com>
  - <varthy_at_gmail.com>
  - Praveen Illa <mail2ipn_at_gmail.com>
- Thai
  - <nontawat39_at_gmail.com>
  - Somthanat W. <somthanat_at_gmail.com>
  - kanitchet <kanichet_at_hotmail.com>
  - jaideejung007 <jaideejung007_at_gmail.com>
  - dsiwarsza <dsiwarsza_at_hotmail.com>
  - Waitaya Krongapiradee <wyte_sk133_at_hotmail.com>
  - Jiraroj Leelarattanawong <legendarybuilder_at_gmail.com>
  - Kongfa Warorot <gongpha_at_hotmail.com>
  - LovEZaCluB <admin_at_lzc-cyberpg.net>
  - Thanapon Namjittrong <Thanapon-1994_at_hotmail.com>
  - Anawin Wongsadit <imonmac_at_hotmail.com>
  - AefghThreenine <aefgh39622_at_gmail.com>
  - Phongphan A Bunlom <phongphan117_at_hotmail.co.th>
  - Setthawut Sawaengkit <defpico2_at_hotmail.com>
- Turkish
  - Burak Yavuz <hitowerdigit_at_hotmail.com>
  - dellpardus <dellpardus_at_hotmail.com>
  - Oğuz Ersen <oguzersen_at_protonmail.com>
- Turkmen
- Ukrainian
  - <nitrotoll_at_gmail.com>
  - Igor <vmta_at_yahoo.com>
  - Vitaliy Perekupka <vperekupka_at_gmail.com>
  - typim <duke3d_at_ukr.net>
  - oleg-ilnytskyi <ukraine.oleg_at_gmail.com>
  - Olexiy Zagorskyi <zalex_ua_at_i.ua>
  - vovka2008 <vovka2008_at_gmail.com>
  - <bardvv_at_gmail.com>
  - Rostyslav Gaitkulov <nightfly_at_kvant.if.ua>
  - Petro Lesiuk <lesyukpetro_at_ukr.net>
  - Hotripak <hotr1pak_at_gmail.com>

  - Andriy Bandura <andriykopanytsia_at_gmail.com>
  - Bohdan S <tpsolodkov_at_gmail.com>
  - Ivan <ivan47044704_at_gmail.com>
  - Kip <yankirill_at_icloud.com>
  - Myroslav Kosinskyi <km_at_ub.ua>
  - Oleksandr <chesterroy_at_gmail.com>
  - Yevhen Bronza <zhenya.bronza_at_gmail.com>
- Urdu
  - Mehbooob Khan <mehboobbugti_at_gmail.com>
  - danish_satti2002 <danish_satti2002_at_yahoo.com>
  - monymirza <monymirza_at_gmail.com>
  - <mj.atari_at_gmail.com>
- Uyghur
  - gheni <gheni_at_yahoo.cn>
  - ablat7ihlim <ablat7ihlim_at_yahoo.com.cn>
  - Abduqadir Abliz <sahranbay_at_gmail.com>
- Uzbek
  - Murodjon Abduvohidov <maueraa_at_mail.ru>
- Uzbek (latin)
- Vietnamese
  - Bao Phan <baophan94_at_icloud.com>
  - Xuan Hung <mr.hungdx_at_gmail.com>
  - Bao trinh minh <trinhminhbao_at_gmail.com>
  - hoanghuy309 <hoanghuy309_at_gmail.com>
  - Dao Nguyen <quynh.d.nguyen_at_student.fh-kiel.de>
  - Trn Ngc Quân <vnwildman_at_gmail.com>
  - Đinh Tùng Duy <dtduy2k1_at_gmail.com>
- Welsh
  - ardavies <ardavies_at_tiscali.co.uk>
- West Flemish
  - Robin van der Vliet <info_at_robinvandervliet.nl>
  - saurabh chikate <chikate.saurabh_at_gmail.com>

11.3 Documentation translators

Following people have contributed to translation of phpMyAdmin documentation:

- Albanian
  - Arben Çokaj <acokaj_at_shkoder.net>
- Arabic
  - Ahmed El Azzabi <ahmedtek1993_at_gmail.com>
  - Omar Essam <omar_2412_at_live.com>
- Armenian
  - Andrey Aleksanyants <aaleksanyants_at_yahoo.com>
- Azerbaijani
  - Mirclal <01youknowme_at_gmail.com>
  - Sevdimali İsa <sevdimaliisayev_at_mail.ru>
- Catalan
  - josep constanti <jconstanti_at_yahoo.es>
  - Joan Montané <joan_at_montane.cat>
  - Xavier Navarro <xvnavarro_at_gmail.com>
- Chinese (China)
  - Vincent Lau <3092849_at_qq.com>
  - <6375lpd_at_gmail.com>
  - disorderman <disorderman_at_qq.com>
  - ITXiaoPang <djh1017555_at_126.com>
  - tunnel213 <tunnel213_at_aliyun.com>
  - Terry Weng <wengshiyu_at_gmail.com>
  - whh <whhlcj_at_126.com>
- Chinese (Taiwan)
  - Chien Wei Lin <cwlin0416_at_gmail.com>
  - Peter Dave Hello <xs910203_at_gmail.com>
- Czech
  - Aleš Hakl <ales_at_hakl.net>
  - Michal Čihař <michal_at_cihar.com>
  - Jan Palider <palider_at_seznam.cz>
  - Petr Kateřiňák <petr.katerinak_at_gmail.com>
- Danish
  - Aputsia Niels Janussen <aj_at_isit.gl>
  - Claus Svalekjaer <just.my.smtp.server_at_gmail.com>
- Dutch

  - A. Voogt <a.voogt_at_hccnet.nl>
  - dingo thirteen <dingo13_at_gmail.com>
  - Dries Verschuere <dries.verschuere_at_outlook.com>
  - Robin van der Vliet <info_at_robinvandervliet.nl>
  - Stefan Koolen <nast3zz_at_gmail.com>
  - Ray Borggreve <ray_at_datahuis.net>
  - Dieter Adriaenssens <ruleant_at_users.sourceforge.net>
  - Tom Hofman <tom.hofman_at_gmail.com>
- Estonian
  - Kristjan Räts <kristjanrats_at_gmail.com>
- Finnish
  - Juha <jremes_at_outlook.com>
- French
  - Cédric Corazza <cedric.corazza_at_wanadoo.fr>
  - Étienne Gilli <etienne.gilli_at_gmail.com>
  - Marc Delisle <marc_at_infomarc.info>
  - Donavan_Martin <mart.donavan_at_hotmail.com>
- Frisian
  - Robin van der Vliet <info_at_robinvandervliet.nl>
- Galician
  - Xosé Calvo <xosecalvo_at_gmail.com>
- German
  - Daniel <d.gnauk89_at_googlemail.com>
  - JH M <janhenrikm_at_yahoo.de>
  - Lasse Goericke <lasse_at_mydom.de>
  - Michael Koch <michael.koch_at_enough.de>
  - Ann + J.M. <phpMyAdmin_at_ZweiSteinSoft.de>
  - Niemand Jedermann <predatorix_at_web.de>
  - Phillip Rohmberger <rohmberger_at_hotmail.de>
  - Hauke Henningsen <sqrt_at_entless.org>
- Greek
  - <papaz_p_at_yahoo.com>
- Hungarian
  - Balázs Úr <urbalazs_at_gmail.com>
- Italian
  - Francesco Saverio Giacobazzi <francesco.giacobazzi_at_ferrania.it>

  - Marco Pozzato <ironpotts_at_gmail.com>
  - Stefano Martinelli <stefano.ste.martinelli_at_gmail.com>
  - TWS <tablettws_at_gmail.com>
- Japanese
  - Eshin Kunishima <ek_at_luna.miko.im>
  - Hiroshi Chiyokawa <hiroshi.chiyokawa_at_gmail.com>
- Lithuanian
  - Jur Kis <atvejis_at_gmail.com>
  - Dovydas <dovy.buz_at_gmail.com>
- Norwegian Bokmål
  - Tor Stokkan <danorse_at_gmail.com>
  - Kurt Eilertsen <kurt_at_kheds.com>
- Portuguese (Brazil)
  - Alexandre Moretti <alemoretti2010_at_hotmail.com>
  - Douglas Rafael Morais Kollar <douglas.kollar_at_pg.df.gov.br>
  - Guilherme Seibt <gui_at_webseibt.net>
  - Helder Santana <helder.bs.santana_at_gmail.com>
  - Michal Čihař <michal_at_cihar.com>
  - Michel Souza <michel.ekio_at_gmail.com>
  - Danilo Azevedo <mrdaniloazevedo_at_gmail.com>
  - Thiago Casotti <thiago.casotti_at_uol.com.br>
  - Vinícius Araújo <vinipitta_at_gmail.com>
  - Yan Gabriel <yansilvagabriel_at_gmail.com>
- Slovak
  - Martin Lacina <martin_at_whistler.sk>
  - Michal Čihař <michal_at_cihar.com>
  - Jozef Pistej <pistej2_at_gmail.com>
- Slovenian
  - Domen <mitenem_at_outlook.com>
- Spanish
  - Luis García Sevillano <floss.dev_at_gmail.com>
  - Franco <fulanodetal.github1_at_openaliasbox.org>
  - Matías Bellone <matiasbellone+weblate_at_gmail.com>
  - Ronnie Simon <ronniesimonf_at_gmail.com>
- Turkish
  - Burak Yavuz <hitowerdigit_at_hotmail.com>

11.4 Original Credits of Version 2.1.0

This work is based on Peter Kuppelwieser's MySQL-Webadmin. It was his idea to create a web-based interface to MySQL using PHP3. Although I have not used any of his source-code, there are some concepts I've borrowed from him. phpMyAdmin was created because Peter told me he wasn't going to further develop his (great) tool.

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- Chris Jackson <chrisj_at_ctel.net> added support for MySQL functions in tbl_change.php3. He also added the "Query by Example" feature in 2.0.
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CHAPTER

TWELVE

GLOSSARY

From Wikipedia, the free encyclopedia

.htaccess
the default name of Apache's directory-level configuration file.

> **See also**
>
> <https://en.wikipedia.org/wiki/.htaccess>

ACL
Access Control List

Blowfish
a keyed, symmetric block cipher, designed in 1993 by Bruce Schneier.

> **See also**
>
> <https://en.wikipedia.org/wiki/Blowfish_(cipher)>

Browser
a software application that enables a user to display and interact with text, images, and other information typically located on a web page at a website on the World Wide Web.

> **See also**
>
> <https://en.wikipedia.org/wiki/Web_browser>

bzip2
a free software/open-source data compression algorithm and program developed by Julian Seward.

> **See also**
>
> <https://en.wikipedia.org/wiki/Bzip2>

CGI
Common Gateway Interface is an important World Wide Web technology that enables a client web browser to request data from a program executed on the web server.

> **See also**
>
> <https://en.wikipedia.org/wiki/Common_Gateway_Interface>

Changelog
a log or record of changes made to a project.

> **See also**
>
> <https://en.wikipedia.org/wiki/Changelog>

Client
a computer system that accesses a (remote) service on another computer by some kind of network.

> **See also**
>
> <https://en.wikipedia.org/wiki/Client_(computing)>

column
a set of data values of a particularly simple type, one for each row of the table.

> **See also**
>
> <https://en.wikipedia.org/wiki/Column_(database)>

Cookie
a packet of information sent by a server to a World Wide Web browser and then sent back by the browser each time it accesses that server.

> **See also**
>
> <https://en.wikipedia.org/wiki/HTTP_cookie>

CSV
Comma-separated values

> **See also**
>
> <https://en.wikipedia.org/wiki/Comma-separated_values>

DB
look at *Database*

Database
an organized collection of data.

> **See also**
>
> <https://en.wikipedia.org/wiki/Database>

Engine
look at *Storage Engines*

PHP extension
a PHP module that extends PHP with additional functionality.

> **See also**
>
> <https://en.wikipedia.org/wiki/Software_extension>

FAQ
Frequently Asked Questions is a list of commonly asked question and their answers.

> **See also**
>
> <https://en.wikipedia.org/wiki/FAQ>

Field
one part of divided data/columns.

> **See also**
>
> <https://en.wikipedia.org/wiki/Field_(computer_science)>

Foreign key
a column or group of columns in a database row that points to a key column or group of columns forming a key of another database row in some (usually different) table.

> **See also**
>
> <https://en.wikipedia.org/wiki/Foreign_key>

GD
Graphics Library by Thomas Boutell and others for dynamically manipulating images.

> **See also**
>
> <https://en.wikipedia.org/wiki/GD_Graphics_Library>

GD2
look at *GD*

GZip
GZip is short for GNU zip, a GNU free software file compression program.

> **See also**
>
> <https://en.wikipedia.org/wiki/Gzip>

host
: any machine connected to a computer network, a node that has a hostname.

> **See also**
>
> <https://en.wikipedia.org/wiki/Host_(network)>

hostname
: the unique name by which a network-attached device is known on a network.

> **See also**
>
> <https://en.wikipedia.org/wiki/Hostname>

HTTP
: Hypertext Transfer Protocol is the primary method used to transfer or convey information on the World Wide Web.

> **See also**
>
> <https://en.wikipedia.org/wiki/HyperText_Transfer_Protocol>

HTTPS
: a *HTTP*-connection with additional security measures.

> **See also**
>
> <https://en.wikipedia.org/wiki/HTTPS>

IEC
: International Electrotechnical Commission

IIS
: Internet Information Services is a set of internet-based services for servers using Microsoft Windows.

> **See also**
>
> <https://en.wikipedia.org/wiki/Internet_Information_Services>

Index
: a feature that allows quick access to the rows in a table.

> **See also**
>
> <https://en.wikipedia.org/wiki/Database_index>

IP
: "Internet Protocol" is a data-oriented protocol used by source and destination hosts for communicating data across a packet-switched internetwork.

> **See also**
>
> <https://en.wikipedia.org/wiki/Internet_Protocol>

IP Address
: a unique number that devices use in order to identify and communicate with each other on a network utilizing the Internet Protocol standard.

> **See also**
>
> <https://en.wikipedia.org/wiki/IP_Address>

IPv6
: IPv6 (Internet Protocol version 6) is the latest revision of the Internet Protocol (*IP*), designed to deal with the long-anticipated problem of its predecessor IPv4 running out of addresses.

> **See also**
>
> <https://en.wikipedia.org/wiki/IPv6>

ISAPI
: Internet Server Application Programming Interface is the API of Internet Information Services (IIS).

> **See also**
>
> <https://en.wikipedia.org/wiki/Internet_Server_Application_Programming_Interface>

ISP
: An Internet service provider is a business or organization that offers users access to the Internet and related services.

> **See also**
>
> <https://en.wikipedia.org/wiki/Internet_service_provider>

ISO
: International Standards Organization

> **See also**
>
> ISO organization website

> **See also**
>
> <https://en.wikipedia.org/wiki/International_Organization_for_Standardization>

JPEG
a most commonly used standard method of lossy compression for photographic images.

> **See also**
>
> <https://en.wikipedia.org/wiki/JPEG>

JPG
look at *JPEG*

Key
look at *Index*

LATEX
a document preparation system for the TeX typesetting program.

> **See also**
>
> <https://en.wikipedia.org/wiki/LaTeX>

Mac
Apple Macintosh is a line of personal computers designed, developed, manufactured, and marketed by Apple Inc.

> **See also**
>
> <https://en.wikipedia.org/wiki/Macintosh>

macOS
the operating system which is included with all currently shipping Apple Macintosh computers in the consumer and professional markets.

> **See also**
>
> <https://en.wikipedia.org/wiki/MacOS>

mbstring
The PHP *mbstring* functions provide support for languages represented by multi-byte character sets, most notably UTF-8.

If you have troubles installing this extension, please follow *1.20 I receive an error about missing mysqli and mysql extensions.*, it provides useful hints.

See also

<https://www.php.net/manual/en/book.mbstring.php>

Media type
A media type (formerly known as MIME type) is a two-part identifier for file formats and format contents transmitted on the Internet.

See also

<https://en.wikipedia.org/wiki/Media_type>

MIME
Multipurpose Internet Mail Extensions is an Internet Standard for the format of e-mail.

See also

<https://en.wikipedia.org/wiki/MIME>

module
modular extension for the Apache HTTP Server httpd.

See also

<https://en.wikipedia.org/wiki/Apache_HTTP_Server>

mod_proxy_fcgi
an Apache module implementing a Fast CGI interface; PHP can be run as a CGI module, FastCGI, or directly as an Apache module.

See also

<https://en.wikipedia.org/wiki/Mod_proxy>

MySQL
a multithreaded, multi-user, SQL (Structured Query Language) Database Management System (DBMS).

See also

<https://en.wikipedia.org/wiki/MySQL>

MySQLi
the improved MySQL client PHP extension.

> **See also**
>
> PHP manual for MySQL Improved Extension

> **See also**
>
> <https://en.wikipedia.org/wiki/MySQLi>

mysql
: the MySQL client PHP extension.

> **See also**
>
> <https://www.php.net/manual/en/book.mysql.php>

OpenDocument
: an open standard for office documents.

> **See also**
>
> <https://en.wikipedia.org/wiki/OpenDocument>

OS X
: look at *macOS*.

> **See also**
>
> <https://en.wikipedia.org/wiki/MacOS>

PDF
: Portable Document Format is a file format developed by Adobe Systems for representing two-dimensional documents in a device-independent and resolution-independent format.

> **See also**
>
> <https://en.wikipedia.org/wiki/PDF>

PEAR
: the PHP Extension and Application Repository.

> **See also**
>
> PEAR website

> **See also**
>
> Wikipedia page for PEAR

PCRE
Perl-Compatible Regular Expressions is the Perl-compatible regular expression functions for PHP

> **See also**
>
> <https://www.php.net/pcre>

> **See also**
>
> PHP manual for Perl-Compatible Regular Expressions

> **See also**
>
> <https://en.wikipedia.org/wiki/Perl_Compatible_Regular_Expressions>

PHP
short for "PHP: Hypertext Preprocessor", is an open-source, reflective programming language used mainly for developing server-side applications and dynamic web content, and more recently, a broader range of software applications.

> **See also**
>
> <https://en.wikipedia.org/wiki/PHP>

port
a connection through which data is sent and received.

> **See also**
>
> <https://en.wikipedia.org/wiki/Port_(computer_networking)>

primary key
A primary key is an index over one or more fields in a table with unique values for every single row in this table. Every table should have a primary key for easier accessing/identifying data in this table. There can only be one primary key per table and it is named always **PRIMARY**. In fact, a primary key is just an *unique key* with the name **PRIMARY**. If no primary key is defined MySQL will use first *unique key* as primary key if there is one.

You can create the primary key when creating the table (in phpMyAdmin just check the primary key radio buttons for each field you wish to be part of the primary key).

You can also add a primary key to an existing table with *ALTER TABLE* or *CREATE INDEX* (in phpMyAdmin you can just click on 'add index' on the table structure page below the listed fields).

RFC
Request for Comments (RFC) documents are a series of memoranda encompassing new research, innovations,

and methodologies applicable to Internet technologies.

> **See also**
>
> <https://en.wikipedia.org/wiki/Request_for_Comments>

RFC 1952
GZIP file format specification version 4.3

> **See also**
>
> **RFC 1952**

Row (record, tuple)
represents a single, implicitly structured data item in a table.

> **See also**
>
> <https://en.wikipedia.org/wiki/Row_(database)>

Server
a computer system that provides services to other computing systems over a network.

> **See also**
>
> <https://en.wikipedia.org/wiki/Server_(computing)>

Sodium
The Sodium PHP extension.

> **See also**
>
> PHP manual for Sodium extension

Storage Engines
MySQL can use several different formats for storing data on disk, these are called storage engines or table types. phpMyAdmin allows a user to change their storage engine for a particular table through the operations tab.

Common table types are InnoDB and MyISAM, though many others exist and may be desirable in some situations.

> **See also**
>
> MySQL doc chapter about Alternative Storage Engines

See also

<https://en.wikipedia.org/wiki/Database_engine>

socket
a form of inter-process communication.

See also

<https://en.wikipedia.org/wiki/Unix_domain_socket>

SSL
Secure Sockets Layer, (now superseded by TLS) is a cryptographic protocol which provides secure communication on the Internet.

See also

<https://en.wikipedia.org/wiki/Transport_Layer_Security>

Stored procedure
a subroutine available to applications accessing a relational database system

See also

<https://en.wikipedia.org/wiki/Stored_procedure>

SQL
Structured Query Language

See also

<https://en.wikipedia.org/wiki/SQL>

table
a set of data elements (cells) that is organized, defined and stored as horizontal rows and vertical columns where each item can be uniquely identified by a label or key or by its position in relation to other items.

See also

<https://en.wikipedia.org/wiki/Table_(database)>

tar
a type of archive file format, from “Tape Archive”.

> **See also**
>
> <https://en.wikipedia.org/wiki/Tar_(computing)>

TCP
Transmission Control Protocol is one of the core protocols of the Internet protocol suite.

> **See also**
>
> <https://en.wikipedia.org/wiki/Internet_protocol_suite>

TCPDF
PHP library to generate PDF files.

> **See also**
>
> <https://tcpdf.org/>

> **See also**
>
> <https://en.wikipedia.org/wiki/TCPDF>

trigger
a procedural code that is automatically executed in response to certain events on a particular table or view in a database

> **See also**
>
> <https://en.wikipedia.org/wiki/Database_trigger>

unique key
A unique key is an index over one or more fields in a table which has a unique value for each row. The first unique key will be treated as *primary key* if there is no *primary key* defined.

URL
Uniform Resource Locator is a sequence of characters, conforming to a standardized format, that is used for referring to resources, such as documents and images on the Internet, by their location.

> **See also**
>
> <https://en.wikipedia.org/wiki/URL>

Web server
A computer (program) that is responsible for accepting HTTP requests from clients and serving them web pages.

See also

<https://en.wikipedia.org/wiki/Web_server>

XML

Extensible Markup Language is a W3C-recommended general-purpose markup language for creating special-purpose markup languages, capable of describing many different kinds of data.

See also

<https://en.wikipedia.org/wiki/XML>

ZIP

a popular data compression and archival format.

See also

<https://en.wikipedia.org/wiki/Zip_(file_format)>

Zlib

an open-source, cross-platform data compression library by Jean-loup Gailly and Mark Adler.

See also

<https://en.wikipedia.org/wiki/Zlib>

Content Security Policy

The HTTP *Content-Security-Policy* response header allows web site administrators to control resources the user agent is allowed to load for a given page.

See also

<https://en.wikipedia.org/wiki/Content_Security_Policy>

See also

<https://developer.mozilla.org/en/docs/Web/HTTP/CSP>

CHAPTER

THIRTEEN

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- genindex
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