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# **matrigram Documentation**

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The bridge between `matrix` and `telegram`.

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# CHAPTER 1

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## Quick start

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After the server is running, switch to your telegram app and add the bot to your contact list.

- First login with your matrix account:

```
/login username password
```

The bot will reply with information.

- Use `/join room_id_or_alias` to join rooms, or `/leave` to leave them.
- Once you have joined rooms, use `/focus` to choose what room you are interested at the moment.

## 1.1 Focus

When communicating with our telegram bot, you only have one conversation windows open while you may have joined many matrix rooms. Showing all messages from all different rooms in one conversation is confusing and a big mess, hence the *focus* feature.

If you send a message, the message will be relayed to your focused room only. When messages are being sent in your focused rooms, they will be relayed to your telegram client. Messages from other rooms you have joined will not be sent to you while not focused.

### 1.1.1 Usage

To set your *focus* room simply write down `/focus`, which will prompt you for the rooms you have joined.

In order to view status regarding the rooms you have joined and focused room use the `/status` command.



# CHAPTER 2

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## Bot commands

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- `/login <username> <password>`

Log in with your matrix username and password.

- `/logout`

Log out of your matrix user.

- `/join <room_name>`

Join to the given room.

- `/leave`

Get a list of the rooms you have joined.

- `/discover_rooms`

Get a list of public rooms on the server.

*This may not work on big servers with many public rooms*

- `/focus`

Interactive command. Prompt the user for the room he wants to “focus” right now.

- `/setname <new_name>`

Sets matrix display name.

- `/status`

Return general information regarding the user status.

- `/create_room <room_alias> [invitees]`

Create a room with *room\_alias* and invite *invitees* to it. Room alias should be provided without the homeserver suffix. Invitees is an optional space seperated list of matrix ids to be invited.

- `/me <text>`

Send an emote to the room.

Every other message (text, photos, videos) which is sent while logged in and focused to a room will be propagated to the room, and vice versa for the room messages being sent from other users.

# CHAPTER 3

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## Matrigram code

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### 3.1 Bot

```
class matrigram.bot.MatrigramBot(*args, **kwargs)
```

```
_get_chat_id(client)
```

Get telegram id associated with client.

**Parameters** `client` (`MatrigramClient`) – The client to be queried.

**Returns** The `chat_id` associated to the client.

**Return type** `str`

```
_get_client(chat_id)
```

Get matrigram client.

**Parameters** `chat_id` – Telegram user id.

**Returns** The client associated to the telegram user with `chat_id`.

**Return type** `MatrigramClient`

```
login(msg, match)
```

Perform login.

**Parameters**

- `msg` – The message object received from telegram user.

- `match` – Match object containing extracted data.

```
on_callback_query(msg)
```

Handle callback queries.

Route queries using `self.callback_query_routes`.

**Parameters** `msg` – The message object received from telegram user.

**on\_chat\_message (msg)**

Main entry point.

This function is our main entry point to the bot. Messages will be routed according to their content type.

**Parameters msg** – The message object received from telegram user.

**on\_text\_message (msg)**

Handle text messages.

Route text messages using `self.routes`.

**Parameters msg** – The message object received from telegram user.

**send\_message (sender, msg, client)**

Send message to telegram user.

**Parameters**

- **sender** (`str`) – Name of the sender.
- **msg** (`str`) – Text message.
- **client** (`MatriogramClient`) – The client the message is originated in.

Returns:

## 3.2 Client

**class matriogram.client.MatriogramClient (server, tb, username)**

**\_get\_rooms\_updated()**

Return rooms dictionary with updated aliases.

Returns (dict): Return rooms dictionary with updated aliases.

**\_room\_alias\_to\_id(alias)**

Convert room alias to id.

**Parameters alias** (`str`) – Room alias.

Returns (str): Room id.

**\_room\_id\_to\_alias(id)**

Convert room id to alias.

**Parameters id** (`str`) – Room id.

Returns (str): Room alias.

**get\_room\_obj(room\_id\_or\_alias)**

Get room object of specific id or alias.

**Parameters room\_id\_or\_alias** (`str`) – Room's id or alias.

Returns (Room): Room object corresponding to room\_id\_or\_alias.

## 3.3 Helper

**matriogram.helper.chunks (l, n)**

Yield successive n-sized chunks from l.

**Parameters**

- **l** (*list*) – List to be split.
- **n** (*int*) – Size of chunk.

`matrigram.helper.config_filled()`

Check if the user filled the config file.

**Returns** True if config is filled, else False.

**Return type** `bool`

`matrigram.helper.download_file(url, path)`

Download a file from the net.

**Parameters**

- **url** (*str*) – Link to the file.
- **path** (*str*) – Where to save.

`matrigram.helper.get_config()`

Query config file.

**Returns** The config dictionary.

**Return type** `dict`

`matrigram.helper.init_config()`

Init `~/.matrigramconfig`.

`matrigram.helper.list_to_nice_lines(l)`

Convert a string list to lines ready to printed.

**Parameters** **l** (*list*) – List of strings to be printed

**Returns** A line separated string that can be printed.

**Return type** `str`

`matrigram.helper.list_to_nice_str(l)`

Convert a string list to a ready to print string.

**Parameters** **l** (*list*) – List of strings to be printed

**Returns** A string that can be printed.

**Return type** `str`

`matrigram.helper pprint_json(to_print)`

Pretty print json.

**Parameters** **to\_print** (*json*) – The json to be printed.

**Returns** Pretty printed json string.

**Return type** `str`



# CHAPTER 4

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## Indices and tables

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