PLC Control API Documentation

This API provides endpoints for PLC control, supporting both GET and POST requests. All endpoints return standard JSON responses.

> Default server port: `5001`

Table of Contents

Connect to PLC `/connect_plc`

- **Method**: GET / POST
- **Parameters**:
  - `Host` (string, optional, default: `192.168.1.11`)
  - `Port` (int, optional, default: `502`)
- **Response**:

```
{
"Function": "ConnectPLC",
"Result": true,
"Message": "Connect PLC Successful 192.168.1.11:502",
"timestamp": "2025-01-25 13:41:27_396084"
}
```

- **Example**:

```
curl "http://127.0.0.1:5001/connect_plc?Host=192.168.1.11&Port=502"
```

Disconnect PLC `/disconnect_plc`

- **Method**: GET / POST
- **Parameters**: None
- **Response**:

```
{
"Function": "DisconnectPLC",
"Result": true,
"Message": "Close Successful",
"timestamp": "2025-01-25 13:43:47_847322"
}
```

- **Example**:

```
curl "http://127.0.0.1:5001/disconnect_plc"
```

Execute PLC Command `/execute_command`

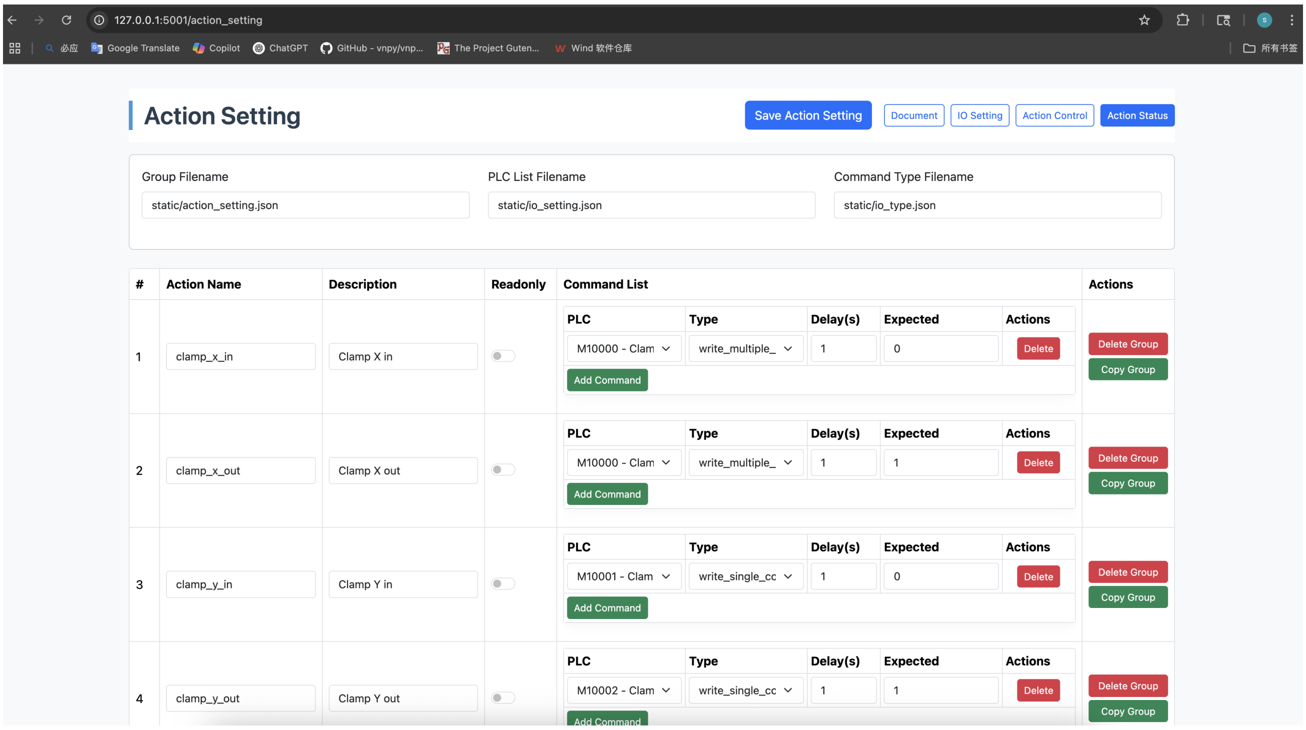
- **Method**: GET / POST
- **Parameters**:
  - `action` (string, required)
- **Response**:

```
{
"Function": "execute_plc_command",
"Result": true,
"Message": "sample_action command successful",
"timestamp": "2025-01-25 13:44:32_943210"
}
```

- **Example**:

```
curl -X POST "http://127.0.0.1:5001/execute_command" -H "Content-Type:
application/json" -d '{"action": "sample_action"}'
```

Note: The available action names can be found on the action configuration page.



Action Setting

Group Filename: static/action_setting.json

PLC List Filename: static/io_setting.json

Command Type Filename: static/io_type.json

#	Action Name	Description	Readonly	PLC	Type	Delay(s)	Expected	Actions	Actions
1	clamp_x_in	Clamp X in	○	M10000 - Clam	write_multiple_	1	0	Delete Add Command	Delete Group Copy Group
2	clamp_x_out	Clamp X out	○	M10000 - Clam	write_multiple_	1	1	Delete Add Command	Delete Group Copy Group
3	clamp_y_in	Clamp Y in	○	M10001 - Clam	write_single_cc	1	0	Delete Add Command	Delete Group Copy Group
4	clamp_y_out	Clamp Y out	○	M10002 - Clam	write_single_cc	1	1	Delete Add Command	Delete Group Copy Group

Get API Version `/get_version`

- **Method**: GET / POST
- **Parameters**: None
- **Response**:

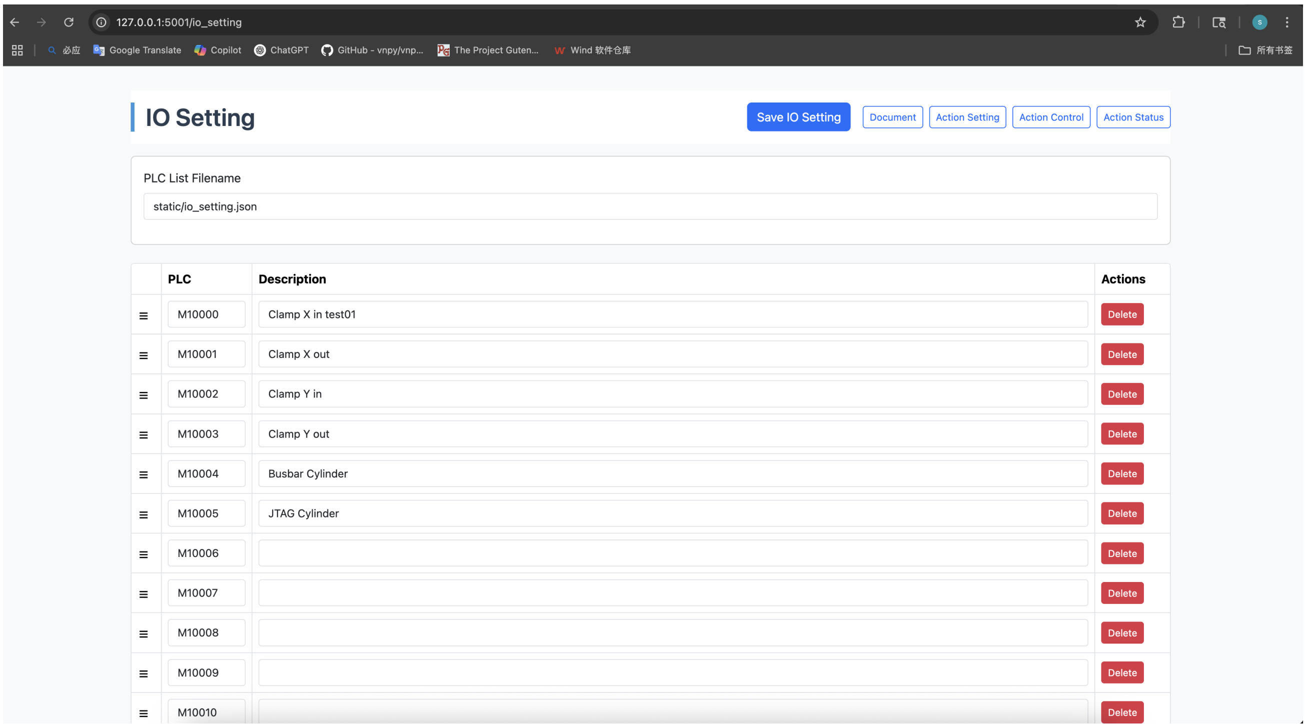
```
{
"Function": "get_api_version",
"Result": true,
"Message": "1.0.0",
"timestamp": "2025-01-25 13:50:00_000000"
}
```

- **Example**:

```
curl "http://127.0.0.1:5001/get_version"
```

Page Endpoints

- `/io_setting` — IO configuration page



IO Setting

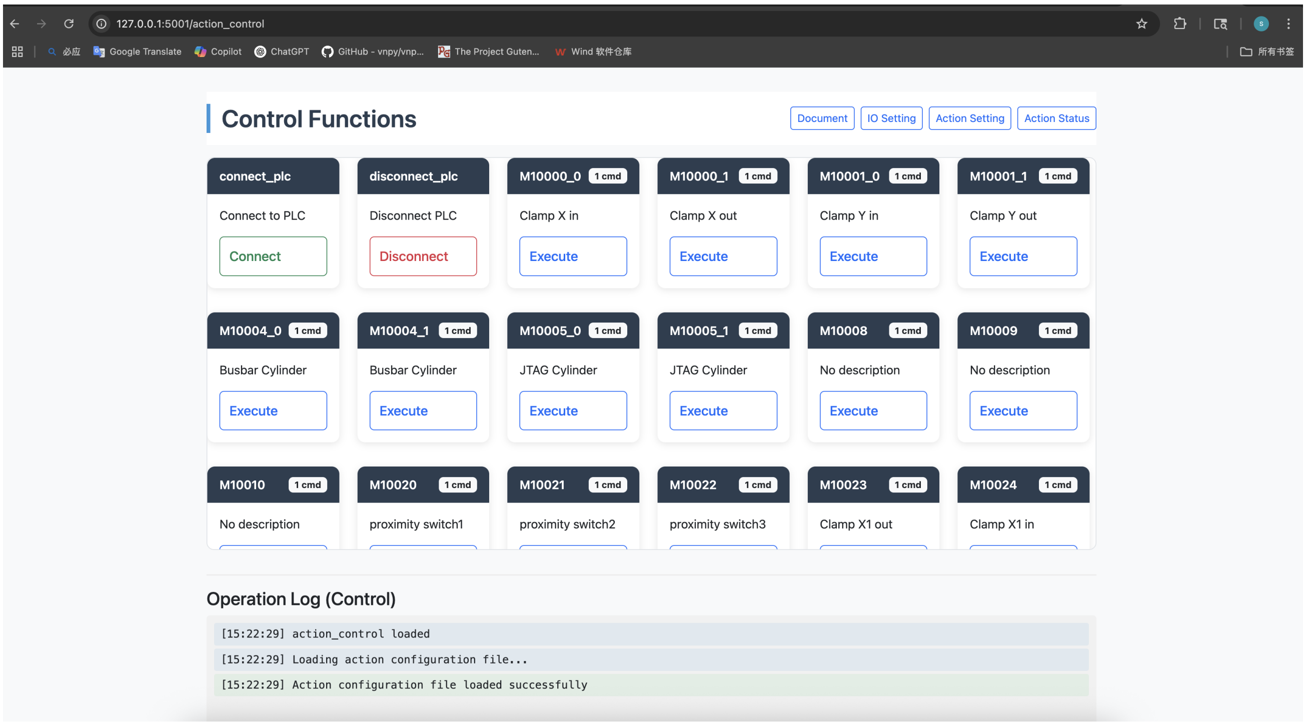
PLC List Filename

static/io_setting.json

	PLC	Description	Actions
≡	M10000	Clamp X in test01	Delete
≡	M10001	Clamp X out	Delete
≡	M10002	Clamp Y in	Delete
≡	M10003	Clamp Y out	Delete
≡	M10004	Busbar Cylinder	Delete
≡	M10005	JTAG Cylinder	Delete
≡	M10006		Delete
≡	M10007		Delete
≡	M10008		Delete
≡	M10009		Delete
≡	M10010		Delete

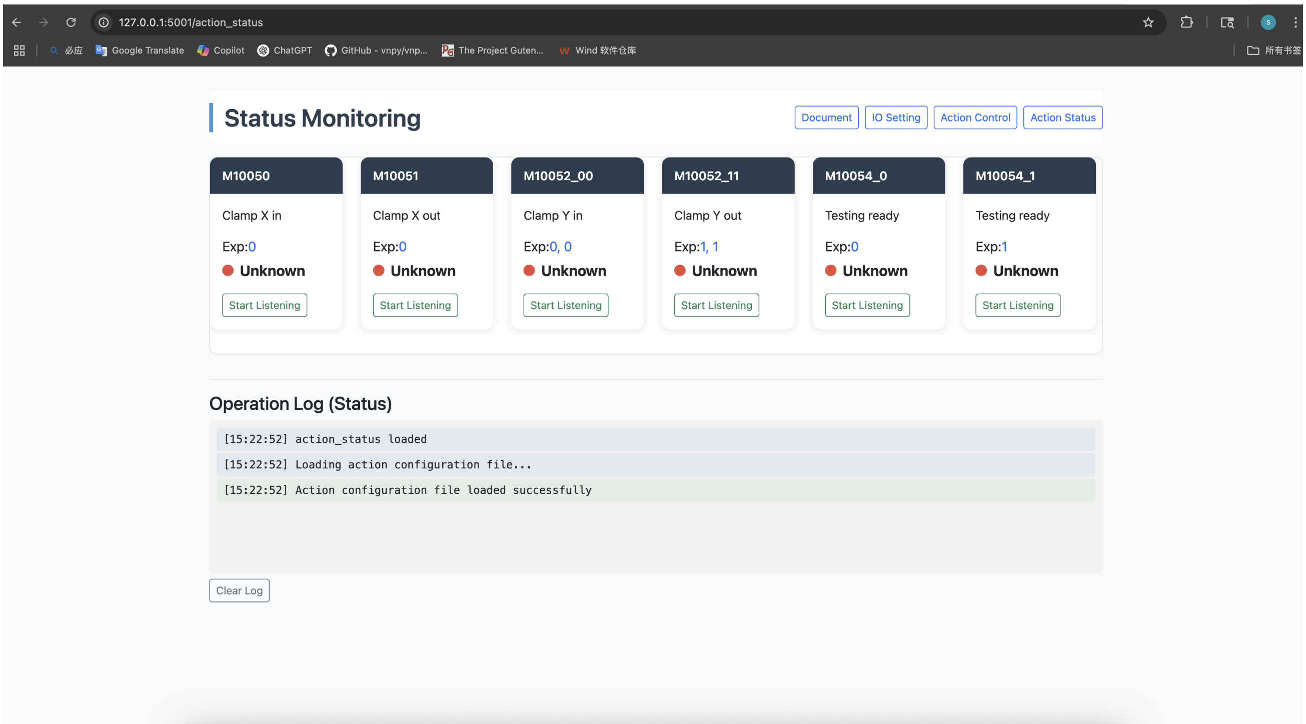
- `/action_setting` — Action configuration page

- `/action_control` — Action control page

- 

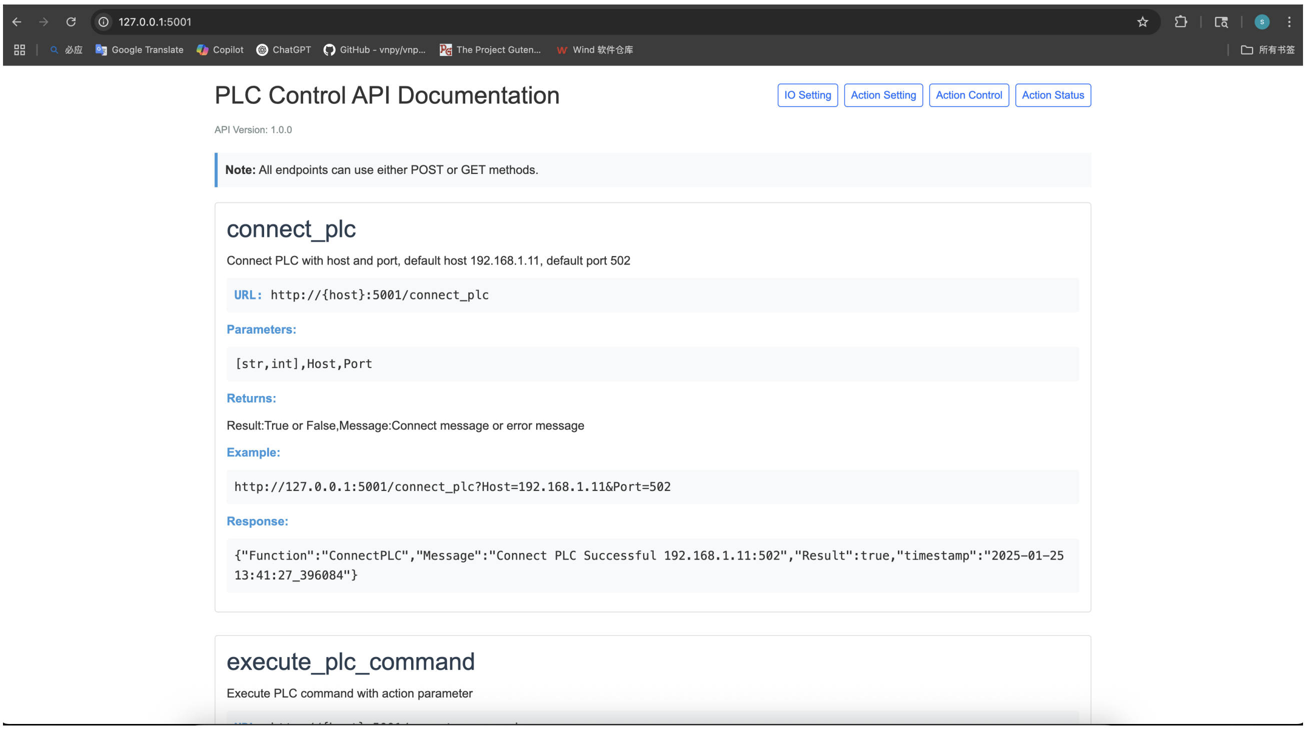
```
[15:22:29] action_control loaded
[15:22:29] Loading action configuration file...
[15:22:29] Action configuration file loaded successfully
```

- `/action_status` — Status monitoring page



```
[15:22:52] action_status loaded
[15:22:52] Loading action configuration file...
[15:22:52] Action configuration file loaded successfully
```

- `/` — API documentation page (supports `?format=json` for JSON format)

- 

PLC Control API Documentation

API Version: 1.0.0

Note: All endpoints can use either POST or GET methods.

connect_plc

Connect PLC with host and port, default host 192.168.1.11, default port 502

URL: `http://{host}:5001/connect_plc`

Parameters:

```
[str,int],Host,Port
```

Returns:

Result:True or False,Message:Connect message or error message

Example:

```
http://127.0.0.1:5001/connect_plc?Host=192.168.1.11&Port=502
```

Response:

```
{"Function":"ConnectPLC","Message":"Connect PLC Successful 192.168.1.11:502","Result":true,"timestamp":"2025-01-25
13:41:27_396084"}
```

execute_plc_command

Execute PLC command with action parameter

Error Response Examples

404:

```
{
  "Function": "Error",
  "Result": false,
  "Message": "Resource not found",
  "timestamp": "..."
}
```

500:

```
{
  "Function": "Error",
  "Result": false,
  "Message": "Internal server error",
  "timestamp": "..."
}
```

For further assistance, please contact the developer.