

# Fuji Manual

v1.6.3-dev-8dede52060

sakurawald

September 28, 2024

# Contents

<b>1</b>	<b>Concept</b>	<b>1</b>
1.1	Configuration File . . . . .	1
1.1.1	Definition . . . . .	1
1.1.2	Types . . . . .	1
1.2	Module . . . . .	2
1.2.1	Definition . . . . .	2
1.2.2	Properties . . . . .	2
1.2.3	Module Path . . . . .	2
1.2.4	How to enable/disable a module? . . . . .	2
1.3	Job . . . . .	4
1.3.1	Definition . . . . .	4
1.3.2	Cron Expression as Trigger Rule . . . . .	4
1.4	Regex . . . . .	5
1.4.1	Definition . . . . .	5
1.4.2	Reference . . . . .	5
1.5	Placeholder . . . . .	6
1.5.1	Definition . . . . .	6
1.5.2	Example . . . . .	6
1.5.3	Reference . . . . .	6
<b>2</b>	<b>Permission</b>	<b>7</b>
2.1	Definition . . . . .	7
2.2	Types . . . . .	7
2.3	What is the permission system used by fuji? . . . . .	8
2.3.1	Explanation . . . . .	8
2.3.2	Set a string permission for a command . . . . .	8
2.4	Reference . . . . .	8
<b>3</b>	<b>Meta</b>	<b>9</b>
3.1	Definition . . . . .	9
3.2	Example . . . . .	9
<b>4</b>	<b>Configuration</b>	<b>10</b>
4.1	Main-Control File . . . . .	10
4.1.1	Configuration . . . . .	10
4.2	Module-Control File . . . . .	11

<b>5</b>	<b>Module</b>	<b>12</b>
5.1	afk	13
5.1.1	Purpose	13
5.1.2	Command	13
5.1.2.1	/afk	13
5.1.3	Configuration	13
5.2	anti_build	14
5.2.1	Purpose	14
5.2.2	Anti Types	14
5.2.3	Exapmle	14
5.3	back	15
5.3.1	Purpose	15
5.3.2	Command	15
5.3.2.1	/back	15
5.3.3	Configuration	15
5.4	chat	16
5.4.1	Purpose	16
5.4.2	Sub-Module	16
5.4.2.1	style	16
5.4.2.1.1	Command	16
5.4.2.1.1.1	/chat	16
5.4.2.1.2	Feature	16
5.4.2.1.3	Placeholder	17
5.4.2.1.4	Configuration	17
5.4.2.2	display	18
5.4.2.2.1	Placeholder	18
5.4.2.2.2	Configuration	18
5.4.2.3	history	19
5.4.2.3.1	Configuration	19
5.4.3	Reference	19
5.5	cleaner	20
5.5.1	Purpose	20
5.5.2	Command	20
5.5.2.1	/cleaner clean	20
5.5.3	Configuration	20
5.6	color	22
5.6.1	Purpose	22
5.6.2	Sub-Module	22
5.6.2.1	Sign	22
5.6.2.2	Anvil	22
5.7	command_alias	23
5.7.1	Purpose	23
5.8	command_attachment	24
5.8.1	Purpose	24
5.8.2	Command	24
5.8.2.1	/command-attachment	24
5.8.3	Example	24
5.9	command_cooldown	26

5.9.1	Purpose	26
5.10	command_event	27
5.10.1	Purpose	27
5.10.2	Example	27
5.11	command_interactive	28
5.11.1	Purpose	28
5.11.2	Example	28
5.12	command_meta	29
5.12.1	Purpose	29
5.12.2	Sub-Module	29
5.12.2.1	run	29
5.12.2.1.1	Purpose	29
5.12.2.1.2	Command	29
5.12.2.1.2.1	/run	29
5.12.2.1.3	Example	29
5.12.2.2	for_each	30
5.12.2.2.1	Purpose	30
5.12.2.2.2	Command	30
5.12.2.2.2.1	/for_each	30
5.12.2.2.3	Example	30
5.12.2.3	chain	31
5.12.2.3.1	Purpose	31
5.12.2.3.2	Command	31
5.12.2.3.2.1	/chain	31
5.12.2.3.3	Example	31
5.12.2.4	delay	32
5.12.2.4.1	Purpose	32
5.12.2.4.2	Command	32
5.12.2.4.2.1	/delay	32
5.12.2.4.3	Example	32
5.12.2.5	json	33
5.12.2.5.1	Purpose	33
5.12.2.5.2	Command	33
5.12.2.5.2.1	/json	33
5.12.2.5.3	Exaxmple	33
5.12.2.5.4	Reference	33
5.12.2.6	attachment	34
5.12.2.6.1	Purpose	34
5.12.2.6.2	Command	34
5.12.2.6.2.1	/attachment	34
5.12.2.6.3	Example	34
5.12.2.7	shell	35
5.12.2.7.1	Purpose	35
5.12.2.7.2	Example	35
5.13	command_permission	36
5.13.1	Purpose	36
5.13.2	Command	36
5.13.2.1	/command-permission	36

5.13.3	How it works	36
5.13.4	Example	36
5.14	command_rewrite	37
5.14.1	Purpose	37
5.15	command_scheduler	38
5.15.1	Purpose	38
5.15.2	Command	38
5.15.2.1	/command-scheduler trigger	38
5.16	command_spy	39
5.16.1	Purpose	39
5.17	command_toolbox	40
5.17.1	Purpose	40
5.17.2	Sub-Module	40
5.17.2.1	/bed	40
5.17.2.2	/extinguish	40
5.17.2.3	/feed	40
5.17.2.4	/fly	40
5.17.2.5	/god	40
5.17.2.6	/hat	40
5.17.2.7	/sit	40
5.17.2.8	/heal	40
5.17.2.9	/lore	40
5.17.2.10	/more	41
5.17.2.11	/ping	41
5.17.2.12	/realname	41
5.17.2.13	/nickname	41
5.17.2.14	/repair	41
5.17.2.15	/reply	41
5.17.2.16	/seen	41
5.17.2.17	/suicide	41
5.17.2.18	/top	41
5.17.2.19	/trashcan	41
5.17.2.20	/tppos	41
5.17.2.21	/warp	41
5.17.2.22	/burn	41
5.17.2.23	/help_op	41
5.17.2.24	/near	41
5.17.2.25	/jump	41
5.17.2.26	/compass	41
5.18	command_warmup	42
5.18.1	Purpose	42
5.19	fuji	43
5.19.1	Purpose	43
5.19.2	Command	43
5.19.2.1	/fuji reload	43
5.19.2.2	/fuji about	43
5.20	deathlog	44
5.20.1	Purpose	44

5.20.2	Command	44
5.20.3	Example	44
5.21	disabler	45
5.21.1	Purpose	45
5.21.2	Sub-Module	45
5.21.2.1	chat_speed_disabler	45
5.21.2.2	move_speed_disabler	45
5.21.2.3	move_wronlgy_disabler	45
5.21.2.4	max_player_disabler	45
5.22	echo	46
5.22.1	Sub-Module	46
5.22.1.1	/send-message	46
5.22.1.2	/send-broadcast	46
5.22.1.3	/send-actionbar	46
5.22.1.4	/send-title	46
5.22.1.5	/send-toast	46
5.22.1.6	/send-chat	46
5.23	functional	47
5.23.1	Purpose	47
5.23.2	Sub-Module	47
5.23.2.1	/workbench	47
5.23.2.2	/enchantment	47
5.23.2.3	/grindstone	47
5.23.2.4	/stonecutter	47
5.23.2.5	/anvil	47
5.23.2.6	/cartography	47
5.23.2.7	/enderchest	47
5.23.2.8	/smithing	47
5.23.2.9	/loom	47
5.24	gameplay	48
5.24.1	Sub-Module	48
5.24.1.1	multi_obsidian_platform	48
5.24.1.1.1	Purpose	48
5.24.1.1.2	Configuration	48
5.24.1.2	carpet	49
5.24.1.2.1	Sub-Module	49
5.24.1.2.1.1	fake_player_manager	49
5.24.1.2.1.1.1	Purpose	49
5.24.1.2.1.1.2	Command	49
5.24.1.2.1.1.3	Configuration	49
5.24.1.2.1.2	better_info	50
5.24.1.2.1.2.1	Purpose	50
5.25	head	51
5.25.1	Purpose	51
5.25.2	Command	51
5.25.2.1	/head	51
5.26	home	52
5.26.1	Purpose	52

5.26.2	Command	52
5.26.2.1	/home	52
5.26.3	Meta	52
5.27	kit	53
5.27.1	Purpose	53
5.27.2	Concept	53
5.27.3	Command	53
5.27.3.1	/kit	53
5.28	language	54
5.28.1	Purpose	54
5.28.2	Feature	54
5.28.3	Difference	54
5.29	motd	55
5.29.1	Purpose	55
5.29.2	Reference	55
5.30	multiplier	56
5.30.1	Purpose	56
5.30.2	Supported Numeric Types	56
5.30.3	Example	56
5.31	nametag	57
5.31.1	Purpose	57
5.31.2	Configuration	57
5.31.3	Example	57
5.31.4	Reference	57
5.32	placeholder	58
5.32.1	Purpose	58
5.32.2	Placeholder	58
5.33	profiler	59
5.33.1	Purpose	59
5.33.2	Command	59
5.33.2.1	/profiler	59
5.34	pvp	60
5.34.1	Purpose	60
5.34.2	Command	60
5.34.2.1	/pvp	60
5.35	rtp	61
5.35.1	Purpose	61
5.35.2	Feature	61
5.35.3	Command	61
5.35.3.1	/rtp	61
5.35.3.1.1	Argument	61
5.35.4	Configuration	61
5.36	skin	62
5.36.1	Purpose	62
5.36.2	Command	62
5.36.2.1	/skin	62
5.36.3	Configuration	62
5.37	system_message	63

5.37.1	Purpose	63
5.38	tab_list	65
5.38.1	Purpose	65
5.38.2	Configuration	65
5.38.3	Sub-Module	65
5.38.3.1	sort	66
5.38.3.1.1	Purpose	66
5.38.3.1.2	How it works	66
5.38.3.1.3	Example	66
5.38.3.1.4	Sub-Module	66
5.38.3.1.4.1	sync_game_profile	66
5.38.3.1.4.1.1	Purpose	66
5.38.3.2	faker	67
5.38.3.2.1	Purpose	67
5.39	teleport_warmup	68
5.39.1	Purpose	68
5.39.2	Configuration	68
5.40	temp_ban	69
5.40.1	Purpose	69
5.40.2	Command	69
5.40.2.1	/temp-ban	69
5.40.3	Example	69
5.41	tester	70
5.41.1	Purpose	70
5.41.2	Command	70
5.41.2.1	/tester	70
5.42	top_chunks	71
5.42.1	Purpose	71
5.42.2	Command	71
5.42.2.1	/chunks	71
5.42.3	Configuration	71
5.43	tpa	72
5.43.1	Purpose	72
5.43.2	Command	72
5.43.2.1	/tpa	72
5.43.2.2	/tpahere	72
5.43.2.3	/tpaaccept	72
5.43.2.4	/tpadeny	72
5.43.2.5	/tpacancel	72
5.43.3	Configuration	72
5.44	view	73
5.44.1	Purpose	73
5.44.2	Command	73
5.44.2.1	/view inv	73
5.44.2.2	/view ender	73
5.45	whitelist	74
5.45.1	Purpose	74
5.46	works	75



5.46.1	Purpose . . . . .	75
5.46.2	Concept . . . . .	75
5.46.3	Command . . . . .	75
5.46.4	Configuration . . . . .	75
5.47	world . . . . .	76
5.47.1	Purpose . . . . .	76
5.47.2	Command . . . . .	76
5.47.2.1	/world . . . . .	76
5.47.3	Concept . . . . .	76
5.47.4	Configuration . . . . .	77
5.47.5	Example . . . . .	77
5.48	world_downloader . . . . .	78
5.48.1	Purpose . . . . .	78
5.48.2	Configuration . . . . .	78
<b>6</b>	<b>Q&amp;A</b>	<b>79</b>
6.1	Where is the configuration files? . . . . .	79
6.2	What is .json file? . . . . .	79
6.3	How can I edit a configuration file? . . . . .	79
6.4	What is .dat file? . . . . .	79
6.5	How to update fuji to a new version? . . . . .	80
6.5.1	Backup the data . . . . .	80
6.5.2	Test the new version in your test-environment . . . . .	80
6.5.3	Apply the changes to production-environment . . . . .	80
6.6	Fuji conflicts with one of my mods. . . . .	80
6.7	Can I ask the forge or neoforge support? . . . . .	80
6.8	How can I report bugs or suggest new features? . . . . .	80
<b>7</b>	<b>Transformer</b>	<b>81</b>
7.1	Command Transformer . . . . .	81
7.2	Command Generator . . . . .	83
<b>8</b>	<b>Development</b>	<b>84</b>
8.1	Setup the development environment . . . . .	84
<b>9</b>	<b>Suggestion</b>	<b>85</b>
9.1	Suggestion on server-side mods . . . . .	85
9.1.1	Explanation . . . . .	85
9.1.2	Server-side mode list . . . . .	86

# Chapter 1

## Concept

### 1.1 Configuration File

#### 1.1.1 Definition

All files inside `config/fuji` directory are named `configuration file`

#### 1.1.2 Types

**Note:** The types of configuration files

**1. Control File** A `control file` is used to control behaviours.

**1.1. Main-Control File** The **main-control file** refers to the `config/fuji/config.json` file, which is used to enable/disable a module.

**1.2. Module-Control File** Some modules will have their own control file, which is used to control the behaviour of the module.

**2. User-Data File** User-data files are used to store the data generated by the user.

## 1.2 Module

### 1.2.1 Definition

A module is used to provide a specific purpose.

#### Example: The purpose of modules

1. **ChatModule** provides chat-format customization.
2. **TpaModule** provides `/tpa` command.

### 1.2.2 Properties

The properties of a module are as follows:

1. **Can be disabled** You can disable a module completely in `main-control` file by setting the value of its `enable` key to `false`.
2. **Can work standalone** The code of a module is self-contained, there is no symbol reference to other modules.

### 1.2.3 Module Path

A module is identified by a unique module path.

#### Example: What a module-path looks like?

The module path of the module `tpa` is `tpa`.  
The module path of the module `history` whose parent module is `chat`, is `chat.history`.  
You will see a list of `enabled` modules identified by their `module path` at the server-startup process.

A module can have sub-module.

The relationship between `parent-module` and `sub-module` is relative, and there is nothing special about `sub-module`.

### 1.2.4 How to enable/disable a module?

You can enable/disable a module in `config/fuji/config.json` by setting the value of its `enable` key to `true/false`.

A `module` will be enabled if the following conditions are met:

1. The value of `common.debug.disable_all_modules` is `false`.
2. The required dependency mods are installed.
3. Its `parent-module` is `enabled`.
4. The value of its `enable` key is `true`.

**Example: How to enable a sub-module?**

To make the module `chat.display` enabled, you need to enable `chat` module first.

## 1.3 Job

### 1.3.1 Definition

A job is some things will be done repeatedly.

### 1.3.2 Cron Expression as Trigger Rule

A language named cron language is used to define when a job should be triggered.

**Tip:** Don't write cron expression by hand. Use generator!

A cron expression looks like `0 * * ? * *`, means trigger the job every minute.  
You can use the generator to generate a cron expression: <https://www.freeformatter.com/cron-expression-generator-quartz.html>

## 1.4 Regex

### 1.4.1 Definition

Regex is a language used to define the pattern of strings.

### 1.4.2 Reference

1. <https://regexr.com/>
2. <https://regex101.com/>

## 1.5 Placeholder

### 1.5.1 Definition

A `placeholder` is a string which will be replaced based on context.

**Tip:** What is the placeholder api in fabric platform?

There is a plugin named `PlaceholderAPI` in bukkit platform.  
Also, there is a mod named `Text Placeholder API` in fabric platform.  
They are different projects, but provides the same purpose.

### 1.5.2 Example

**Example:** Replace player name by context

The placeholder `%player:name%` will be replaced by the name of the contextual player.

### 1.5.3 Reference

1. <https://placeholders.pb4.eu/user/default-placeholders/>
2. <https://placeholders.pb4.eu/user/mod-placeholders/>

## Chapter 2

# Permission

### 2.1 Definition

A **permission** is used to decide whether a **player** can do something or not.

### 2.2 Types

To make the discussion clearer, we define the types of **permission** as follows:

1. **level permission** A permission level is a non-negative number used in vanilla minecraft. The higher number means the higher authority.
2. **string permission** Usually, a **string permission** is introduced by a **permission plugin**, such as luckperms.



## 2.3 What is the permission system used by fuji?

### 2.3.1 Explanation

Fuji use the mojang's vanilla permission system, which is based on level permission.

As a convention, most of the commands registered by fuji, requires level permission to be 0 to use. Only a few of the commands require the level permission to be 4 to use.

### 2.3.2 Set a string permission for a command

By default, fuji only use the level permission as the requirement of a command. However, if you want to use string permission for a command, you can use command permission module, which is used to override the requirement of an existing command.

#### Example: Allow players to use /seed command

The command `/seed` provided by mojang requires level permission to be 3 to use. If you want to allow players to use `/seed` command, but you don't want to grant op for them. Then in this situation, you can grant the string permission for them: `/lp group default permission set fuji.permission.seed true`, which means that: set the requirement of command `/seed` to string permission `fuji.permission.seed`.

#### Example: Dis-allow players to use /list command

The command `/list` provided by mojang required level permission to be 0 to use. If you want to dis-allow players to use `/list` command, but because this command requires no string permission to use, so it's impossible to ban it via luckperms. In this situation, you can grant a string permission: `/lp group default permission set fuji.permission.list false` for them, which means that: set the requirement of command `/list` to string permission `fuji.permission.list`.

#### Example: Unset the override of requirement of the command

To undo the operation in the first example, just issue `/lp group default permission unset fuji.permission.seed`

## 2.4 Reference

1. [https://minecraft.fandom.com/wiki/Permission\\_level](https://minecraft.fandom.com/wiki/Permission_level)

## Chapter 3

# Meta

### 3.1 Definition

A `meta` is a `key-value` pair.

#### Note:

Note that `meta` is introduced by `luckperms` mod, there is no `meta` in vanilla minecraft.

### 3.2 Example

Example: Set a meta for a group.

The `home` module supports the meta `fuji.home.home_limit`, which controls how many homes a player can create. To set the max homes limits to 3: `/lp group default meta set fuji.home.home_limit 3`

Example: Query all metas for a group.

```
/lp group default info
```

## Chapter 4

# Configuration

### 4.1 Main-Control File

#### 4.1.1 Configuration

**core** The core options inside `config/fuji/config.json` will influence all modules.

##### debug

**disable\_all\_modules** Used to test the compatibility between fuji and other mods.

**backup** Fuji will back up the `config/fuji` directory automatically before it loads any module.

**max\_slots** How many backup should we keep?

**skip** The list of path resolver to skip in backup.

Insert `modules/head` means skip the folder `config/fuji/modules/head`.

##### language

**default\_language** The default language to use.

**Tip:** Enable multi-language support for fuji

See [language](#)

**quartz** Fuji use quartz library as scheduler, all the [Job](#) are managed by quartz. Quartz library use a language called `cron language` to define when to trigger a job.

**logger\_level** The logger level for quartz. The logger level from high to low are: OFF, FATAL, ERROR, WARN, INFO, DEBUG, TRACE, ALL.

**Example:** Enable all logs for quartz

Set the value to ALL to display all the messages from quartz. It's recommended to set at least WARN level, to avoid console spam.

## 4.2 Module-Control File

You can read more about `module-control` file for each module in [Module](#)

## Chapter 5

## Module

## 5.1 afk

### 5.1.1 Purpose

This module provides afk detection, afk event, afk name customization and afk effects.

### 5.1.2 Command

#### 5.1.2.1 /afk

### 5.1.3 Configuration

**format** The **tab list name** format when a player is afk

**afk\_checker**

**cron** The cron to define how the afk\_checker is triggered.

**afk\_event** Execute commands on afk events.

Example: Kick a player if he enters afk state

```
"on_enter_afk": [  
  "send-broadcast <gold>Player %player:name% is now afk",  
  "kick %player:name% You are kicked beacause of afk."  
]
```

**event** Afk effects are applied if a player enters afk state.

**invulnerable** Immune to all damage?

**targetable** Can be targeted by a hostile entity?

**moveable** Can be moved if in afk state?

## 5.2 anti\_build

### 5.2.1 Purpose

This module allows you to ban the interaction with some item/block/entity.

### 5.2.2 Anti Types

The types supported by this module are as follows:

1. break\_block
2. place\_block
3. interact\_item
4. interact\_block
5. interact\_entity

#### Tip: Query identifiers

To query block identifier, issue `/setblock ~~~...`  
To query entity identifier, issue `/summon ...`  
To query item identifier, issue `/give ...`

### 5.2.3 Exapmle

#### Example: Ban TNT

add minecraft:tnt into place\_block list

#### Example: Ban TNT but allow a specific player to use

```
/lp user <player> permission set fuji.anti_build.place_block.bypass.minecraft:tnt
```

## 5.3 back

### 5.3.1 Purpose

This module allows player to teleport back to **last teleport point** or **death point**.

### 5.3.2 Command

#### 5.3.2.1 /back

### 5.3.3 Configuration

**ignore\_distance** If the player's teleportation destination is close enough, we ignore this teleportation.



## 5.4 chat

### 5.4.1 Purpose

This module provides chat related customization.

### 5.4.2 Sub-Module

#### 5.4.2.1 style

Customize the server chat format and per-player chat format.

##### 5.4.2.1.1 Command

5.4.2.1.1.1 `/chat`

##### 5.4.2.1.2 Feature

1. You can create your own `regex transformer` to replace `chat message` sent by players.
2. You can insert any `placeholder` like `%world:name%`
3. You can insert player's prefix and suffix. Just insert `%fuji:player_prefix%` and `%fuji:player_suffix%`.
4. You can insert `"item"`, `"inv"` and `"ender"` to display your item, inventory and ender-chest.
5. You can insert `"Steve"` to mention another player named Steve.
6. You can insert `"pos"` to show the position.
7. You can use `markdown language` to define simple format.
8. You can use `mini-message language` to define complex format.
9. Besides the `server chat format`, each player can also set their per-player chat format.
10. This module doesn't **cancel** the vanilla chat events, so it can work with other chat related mods.

#### Tip: Write complex style using mini-language

You can use `mini-language` to write complex text.

See more:

1. <https://docs.advntr.dev/minimessage/format.html>
2. <https://placeholders.pb4.eu/user/quicktext>

#### 5.4.2.1.3 Placeholder

1. `%fuji:pos%` player current position
2. `%fuji:player_prefix%` player prefix
3. `%fuji:player_suffix%` player suffix

##### Note: Set prefix and suffix for players

Luckperms is required to set `prefix` and `suffix`.

After you installed `luckperms` mod, just issue `/lp group default meta setprefix <yellow>[awesome]` to assign prefix.

Don't forget to change the format in chat module, and issue `/fuji reload`

#### 5.4.2.1.4 Configuration

**format** The server chat format for all players.

**rewrite** The `regex` language list used to **rewrite** the player chat message.

You can use regex language to transform player's chat input (only chat message, no command usage).

**mention\_player** If you insert **Steve** in chat message, then the player named Steve will get audio mention.

**sound** The type of **sound** used to notify the mentioned player.

##### Tip: Query all identifiers of sound

```
/playsound ...
```

**volume**

**pitch**

**repeat\_count** The sound repeat count.

**interval\_ms** The interval between each repeat.

**spy** Log chat information into server-console.

### 5.4.2.2 display

#### 5.4.2.2.1 Placeholder

1. `%fuji:item%` display player's main-hand item.
2. `%fuji:inv%` display player's inventory.
3. `%fuji:ender%` display player's ender-chest.

#### 5.4.2.2.2 Configuration

**expiration\_duration\_s** For each display data, how long should we save in the memory. Note that if a player shares its inventory items, then fuji will save a copy of his inventory data in the memory.

### 5.4.2.3 history

New joined players can see the historical chat messages.

#### 5.4.2.3.1 Configuration

**buffer\_size** How many chat messages should we save, so that we can send for a new-joined player.

### 5.4.3 Reference

1. [Text Placeholder API - default placeholders](#)
2. [Luckperms - prefix, suffix and meta](#)

## 5.5 cleaner

### 5.5.1 Purpose

This module provides the entity cleaner to remove specified entities automatically.

**Note: Only use this module to clean some edge-case entity**

Since the vanilla minecraft also has a cleaner to remove the item stack in the ground, so it's recommended to only use this module to clean some weak-loading entities, like: the sand item stack ...

### 5.5.2 Command

#### 5.5.2.1 `/cleaner clean`

**Note: The cleaner will keep silent if cleans nothing**

If the cleaner cleans nothing, then it will keep silent. (Which means you will not see any message in console, or in-game chat)

**Tip: See what is cleaned in cleaner broadcast.**

Hover your mouse on the cleaner broadcast, you can see what has been removed.

### 5.5.3 Configuration

**cron** The cron used to define the job to trigger `/cleaner clean`.

**key2age** The key is translatable key, which you can query in `en_us.json` language file in minecraft 1.21.

The translatable key of entity starts with `entity.minecraft`.

The translatable key of item starts with `item.minecraft` and `block.minecraft`.

The age is the existence time of the entity, the unit of age is game tick, which means  $20 \text{ age} = 20 \text{ ticks} = 1 \text{ second}$ .

The cleaner will only remove the entities whose translatable key equals key, and age greater equals the defined age, and the entity must not in the ignore list.

**Example: Clean the sand-block entity lives longer than 60sec**

```
"block.minecraft.sand": 1200
```

**ignore** Entities match the ignore list will not be cleaned.

**ignore\_item\_entity** Should we ignore all item entity.

**ignore\_living\_entity** Should we ignore all living entity?

If you want the cleaner to remove monster or animals, you should enable this option.

**ignore\_named\_entity** Should we ignore named entity. (With name tag, or name changed by anvil.)

**ignore\_entity\_with\_vehicle** Like entity riding in some other entity, e.g. minecraft, pig or spider

**ignore\_entity\_with\_passengers**

**ignore\_glowing\_entity**

**ignore\_leashed\_entity**

**Note: The built-in safety rule**

The cleaner will **always ignore** the following types:

1. player
2. any block attached entity (e.g. leash\_knot)
3. any vehicle entity (e.g. minecart, boat ...)

## **5.6 color**

### **5.6.1 Purpose**

This module provides colorize for things.

### **5.6.2 Sub-Module**

#### **5.6.2.1 Sign**

#### **5.6.2.2 Anvil**

## 5.7 `command_alias`

### 5.7.1 Purpose

This module allows you to define command alias, which redirect to the existing command node.

**Note:** A command node is identified by path

See also: <https://minecraft.fandom.com/wiki/Commands>



## 5.8 `command_attachment`

### 5.8.1 Purpose

This module allows you to attach commands into itemstack.

### 5.8.2 Command

#### 5.8.2.1 `/command-attachment`

**Note: The same item-stack shares the-same instance**

If you hold stick \* 64 in your main-hand, then all the sticks share the same attached commands.

### 5.8.3 Example

Example: Make a magic-stick which heals the player on clicked.

Hold a stick item in your main hand.

```
/command-attachment attach-item-one heal
```

Example: Make a magic-stick which gives one diamond on left clicked with use limit 3 and gives one gold\_ingot on right clicked with use limit 5.

Hold a stick item in your main hand.

```
/command-attachment attach-item-one --maxUseTimes 3 --interactType LEFT give
%player:name% minecraft:diamond 1
/command-attachment attach-item-one --maxUseTimes 5 --interactType RIGHT
give %player:name% minecraft:gold_ingot 1
```

Example: Make a magic-stick which gives one apple on clicked with use limit 3 without destroying the item.

Hold a stick item in your main hand.

```
/command-attachment attach-item-one --maxUseTimes 3 --destroyItem false give
%player:name% minecraft:apple 1
```

Example: Query the attached commands in the mainhand item.

```
/command-attachment query-item
```

Example: Let an entity says hello on right click

```
/command-attachment attach-entity-one <entity-id> say hello %player:name%
```

Example: Say hello if you stepped on a specific block

```
/command-attachment attach-block-one 0 0 0 --interactType STEP_ON say hello  
%player:name%
```

## **5.9 command\_cooldown**

### **5.9.1 Purpose**

This module adds a cooldown after command execution.

## 5.10 command\_event

### 5.10.1 Purpose

Execute commands on specific events.

### 5.10.2 Example

Example: Welcome the new-bie player

```
"on_player_first_joined": {  
  "command_list": [  
    "send-broadcast <light_purple>Welcome new player %player:name% to join  
    ↪ us!",  
    "kit give %player:name% <kit-name>",  
    "run as fake-op %player:name% rtp",  
    "delay 10 spawnpoint %player:name%"  
  ]  
},
```

## 5.11 `command_interactive`

### 5.11.1 Purpose

This module allows you to write commands in **sign block**.

### 5.11.2 Example

#### Example: Basic usage

```
/say hi %player:name%  
line 2 empty  
line 3 empty  
line 4 empty
```

#### Example: Add a prefix description text

```
prefix /say first  
/say the second  
/say hi %player:name%  
/say the last command
```

#### Example: Concat commands between lines

```
prefix /say this is  
the first /say and the  
second  
line 4 empty
```

#### Tip:

1. You need to press shift + right click to edit an interactive sign
2. The command is executed as the player.

## 5.12 `command_meta`

### 5.12.1 Purpose

This module provides commands to operate on commands.

### 5.12.2 Sub-Module

#### 5.12.2.1 `run`

##### 5.12.2.1.1 Purpose

This module provides `/run` command, which can run a command with context.

##### 5.12.2.1.2 Command

###### 5.12.2.1.2.1 `/run`

##### 5.12.2.1.3 Example

Example: Give random diamonds to online players

```
/run as console give @a minecraft:diamond %fuji:random 8 32%
```

Example: Give online players random diamonds

```
/run as console foreach give %fuji:escape player:name% minecraft:diamond  
%fuji:escape fuji:random 8 32 1%
```

Example: Execute a command as a player

```
/run as player Steve back
```

Example: Execute a command as fake-op

```
/run as fake-op Steve give %player:name% minecraft:apple 1
```

### 5.12.2.2 for\_each

#### 5.12.2.2.1 Purpose

This module provides /foreach command.

If a command is only targeted for single player, you can use /foreach to apply it for each player.

#### 5.12.2.2.2 Command

##### 5.12.2.2.2.1 /for\_each

#### 5.12.2.2.3 Example

Example: Say hello to online players

```
/foreach say hello %player:name%
```

#### Tip: Escape the placeholder properly

If you use foreach in scheduler module, then you should escape (Write %fuji:escape player:name% instead of %player:name%) the placeholder.

It's because the command-scheduler module will try to parse the placeholder, and you need to escape the placeholder, so that the placeholder can be parsed by /foreach command.

Here is an example about escape the foreach command in scheduler command list: /foreach give %fuji:escape player:name% minecraft:diamond 16

### 5.12.2.3 chain

#### 5.12.2.3.1 Purpose

A chain command allows you to run another 2 commands, the first is any command, and the second is the chain command.

**Note: The return value of a command**

In vanilla minecraft, the return value of command, is an integer:

1.  $<0$  failed
2.  $=0$  passed
3.  $>0$  success

#### 5.12.2.3.2 Command

##### 5.12.2.3.2.1 /chain

#### 5.12.2.3.3 Example

Example: A nested chain.

```
/chain say 1 chain say 2 chain say 3
```

Example: A breakable chain.

```
/chain bad command here chain say 2
```



#### 5.12.2.4 delay

##### 5.12.2.4.1 Purpose

Delay command allows you to execute a command in specific seconds.

##### 5.12.2.4.2 Command

###### 5.12.2.4.2.1 /delay

##### 5.12.2.4.3 Example

Example: A basic usage

```
/delay 3 say three seconds passed
```

Example: A nested delay

```
/delay 1 delay 2 delay 3 say 6 seconds passed.
```

### 5.12.2.5 json

#### 5.12.2.5.1 Purpose

Provides a unified json editor.

#### 5.12.2.5.2 Command

##### 5.12.2.5.2.1 /json

#### 5.12.2.5.3 Exaxmple

Example: Read a key

```
/json read "config/fuji/config.json" "$.core.quartz.logger_level"
```

Example: List keys

```
/json read "config/fuji/config.json" "$.modules.keys()"
```

Example: Set a key

```
/json write "config/fuji/config.json" "$.core.quartz.logger_level" STRING  
INFO"
```

#### 5.12.2.5.4 Reference

1. <https://goessner.net/articles/JsonPath/>

**5.12.2.6 attachment****5.12.2.6.1 Purpose**

Provides a unified attachment facility, which can attach any data to any object.

**5.12.2.6.2 Command****5.12.2.6.2.1 /attachment****5.12.2.6.3 Example**

Example: Set a attachment

```
/attachment set news today hello world
```

Example: Get a attachment

```
/attachment get news today
```

### 5.12.2.7 shell

#### 5.12.2.7.1 Purpose

This module provides `/shell` command, which executes the command line in the host shell.

**Danger: This is a dangerous module**

This module is a powerful and dangerous module, not recommended to enable it.

#### 5.12.2.7.2 Example

Example: Create a file using placeholder

```
/shell touch %player:name%.dangerous
```

Example: Execute a program in the host os

```
/shell emacs
```

Example: Possible to download a virus from Internet and execute it!

```
/shell ...
```

## 5.13 command\_permission

### 5.13.1 Purpose

This module provides the customization of **the requirement of all commands**.

### 5.13.2 Command

#### 5.13.2.1 /command-permission

### 5.13.3 How it works

The vanilla minecraft use a command system named brigadier.

All the commands are registered, parsed and executed by brigadier.

In this system, all commands are build into **a tree structure**, that is to say, all commands are a direct or in-direct child of the **root command node**.

**Example: What is the path of a specific command node?**

For example, the command `/gamemode creative Steve` is composed by 3 command node:

1. **literal command node** = "gamemode"
2. **argument command node** = a gamemode argument
3. **argument command node** = a player argument

We say that the command path of `/gamemode creative Steve`, is ["gamemode", "gamemode", "target"].

Also, each **command node** has its **requirement**, which is a **predicate** to check if the **command source** can use the command node.

**Tip: Query all the registered command path**

```
/lp group default permission set fuji.permission...
```

### 5.13.4 Example

**Example: Allow everyone to use /op command**

```
/lp group default permission set fuji.permission.op true
```

## 5.14 `command_rewrite`

### 5.14.1 Purpose

This module allows you to use regex language to rewrite the command line a player issued.

## 5.15 `command_scheduler`

### 5.15.1 Purpose

This module allows you to define jobs using cron expression to run commands.

### 5.15.2 Command

#### 5.15.2.1 `/command-scheduler trigger`

Immediately trigger a job.

## **5.16    `command_spy`**

### **5.16.1    Purpose**

Log command issue event into the console.



## 5.17 command\_toolbox

### 5.17.1 Purpose

This module provides some simple commands. (misc commands)

### 5.17.2 Sub-Module

5.17.2.1 /bed

5.17.2.2 /extinguish

5.17.2.3 /feed

5.17.2.4 /fly

5.17.2.5 /god

5.17.2.6 /hat

5.17.2.7 /sit

5.17.2.8 /heal

5.17.2.9 /lore

Example: Set lore for item in mainhand

```
/lore set <rainbow>the first line<newline><bold><green>the second
```

5.17.2.10 /more  
5.17.2.11 /ping  
5.17.2.12 /realname  
5.17.2.13 /nickname  
5.17.2.14 /repair  
5.17.2.15 /reply  
5.17.2.16 /seen  
5.17.2.17 /suicide  
5.17.2.18 /top  
5.17.2.19 /trashcan  
5.17.2.20 /tppos  
5.17.2.21 /warp  
5.17.2.22 /burn  
5.17.2.23 /help\_op  
5.17.2.24 /near  
5.17.2.25 /jump  
5.17.2.26 /compass

## 5.18 `command_warmup`

### 5.18.1 Purpose

This module adds a cooldown before command execution.

**Note:** The difference between `command_warmup` and `command_cooldown`

`command_warmup` is before command execution, while `command_cooldown` is after that.

## 5.19 fuji

### 5.19.1 Purpose

This module provides the command `/fuji`, which includes some operations on fuji itself.

### 5.19.2 Command

#### 5.19.2.1 `/fuji reload`

Reload all configuration files and all modules.

#### 5.19.2.2 `/fuji about`

**Note:** Module itself can't be hot reloaded

After you enable or disable a module, you must **restart** the server.

## 5.20 deathlog

### 5.20.1 Purpose

This module logs the inventory on player death.

### 5.20.2 Command

1. `/deathlog`

### 5.20.3 Example

Example: Query the logs for a player

```
/deathlog view Steve
```

Example: Restore a death log from a player for a player

```
/deathlog restore Steve 0 Steve
```

**Tip:** The death log index number is clickable

You can click the number to quickly restore the logged inventory to your inventory.

## 5.21 disabler

### 5.21.1 Purpose

This module provides **disablers** to disable checkers inside **vanilla minecraft**.

### 5.21.2 Sub-Module

#### 5.21.2.1 chat\_speed\_disabler

Disable **Kicked for spamming**.

#### 5.21.2.2 move\_speed\_disabler

Disable **player moved too quickly** and **vehicle moved too quickly**.

#### 5.21.2.3 move\_wronlgy\_disabler

Disable **player moved wrongly**.

**Warning: The movement anti-cheat inside vanilla minecraft is bad**

Inside the vanilla minecraft server, there is a checker used to check if the player moves correctly. However, this checker usually makes wrong detection, and force setback the player, which makes the client-side gameplay feel lagged.

#### 5.21.2.4 max\_player\_disabler

Disable the max players limit of the server.

## 5.22 echo

This module provides commands to send echo to players.

### 5.22.1 Sub-Module

#### 5.22.1.1 /send-message

#### 5.22.1.2 /send-broadcast

#### 5.22.1.3 /send-actionbar

#### 5.22.1.4 /send-title

Example: Send title to a player

```
/send-title Steve --mainTitle "<rainbow>Hello" --subTitle "<blue>World"  
--fadeInTicks 60 --stayTicks 60 --fadeOutTicks 60
```

Example: Send title to online players

```
/foreach send-title %player:name% --mainTitle "<rainbow>Hello %player:name%"
```

#### 5.22.1.5 /send-toast

Example: Send toast to a player

```
/send-toast Steve --icon minecraft:golden_carrot <rb>eat this carrot
```

#### 5.22.1.6 /send-chat

Example: Send chat as a player

```
/send-chat Steve i am steve.
```

Example: Send chat as a player for online players

```
/foreach send-chat %player:name% i am %player:name%
```

## 5.23 functional

### 5.23.1 Purpose

This module allows players to open a virtual gui of functional-block.

### 5.23.2 Sub-Module

**5.23.2.1** /workbench

**5.23.2.2** /enchantment

**5.23.2.3** /grindstone

**5.23.2.4** /stonecutter

**5.23.2.5** /anvil

**5.23.2.6** /cartography

**5.23.2.7** /enderchest

**5.23.2.8** /smithing

**5.23.2.9** /loom



## 5.24 gameplay

### 5.24.1 Sub-Module

#### 5.24.1.1 multi\_obsidian\_platform

##### 5.24.1.1.1 Purpose

This module makes every **ender portal frame** generates its own **obsidian platform** (Up to 128 in survival-mode).

You can even use creative-mode to build more ender portal frame and more obsidian platform.

**Note: All the obsidian platforms are vanilla-respect**

All the extra obsidian platforms have the same behaviour as the vanilla one which locates in (100,50,0).

##### 5.24.1.1.2 Configuration

**factor** The coordination-conversion factor between overworld and the\_end. In vanilla minecraft, the factor between overworld and the\_nether is 8.

**5.24.1.2 carpet****5.24.1.2.1 Sub-Module****5.24.1.2.1.1 fake\_player\_manager****5.24.1.2.1.1.1 Purpose**

Enable this module requires carpet-fabric mod installed. This module provides some management for fake-player.

**5.24.1.2.1.1.2 Command**

1. `/player who` query the owner of the fake-player
2. `/player renew` renew all of your fake-players

**5.24.1.2.1.1.3 Configuration**

**caps\_limit\_rule** How many fake-player can each player spawn (in different time)?

The tuple means (day\_of\_week, minutes\_of\_the\_day, max\_fake\_player\_per\_player).

The range of day\_of\_week is [1,7].

The range of minutes\_of\_the\_day is [0, 1440].

For example: (1, 0, 2) means if the days\_of\_week  $\geq 1$ , and minutes\_of\_the\_day  $\geq 0$ , then the max\_fake\_player\_per\_player now is 2.

Besides, you can add multi rules, the rules are checked from up to down.

The first rule that matches current time will be used to decide the max\_fake\_player\_per\_player.

You can issue `/player who` to see the owner of the fake-player.

Only the owner can operates the fake-player. (Op can bypass this limit)

**renew\_duration\_ms** How long should we renew when a player issue `/player renew` The command `/player renew` allows the player to manually renew all of his fake-player. If a fake-player don't gets renew, then it will expired and get killed. Use-case: to avoid some long-term alive fake-player.

**transform\_name** The rule to transform the name of fake-player. Use-case: add prefix or suffix for fake-player.

**use\_local\_random\_skins\_for\_fake\_player** Should we use local skin for fake-player? Enable this can prevent fetching skins from mojang official server each time the fake-player is spawned. This is mainly used in some network situation if the network to mojang official server is bad.

**5.24.1.2.1.2 better\_info**

**5.24.1.2.1.2.1 Purpose**

Add nbt query for /info block command. Add the command /info entity.

## **5.25 head**

### **5.25.1 Purpose**

This module allows players to buy decorative heads from a head-database.

### **5.25.2 Command**

#### **5.25.2.1 /head**

## 5.26 home

### 5.26.1 Purpose

This module allows players to set a teleportation point as their home.

### 5.26.2 Command

#### 5.26.2.1 /home

### 5.26.3 Meta

1. **fuji.home.home\_limit** The home number per player limit.

## 5.27 kit

### 5.27.1 Purpose

This module allows you to make kits.

### 5.27.2 Concept

A **kit** is a set of itemstack.

### 5.27.3 Command

#### 5.27.3.1 /kit

## 5.28 language

### 5.28.1 Purpose

This module provides client-side multi-language support.

**Note: What is client-side language?**

When the client joins a server, it will send its client options, including the client-side language value. The server can send messages in language used by the client later.

### 5.28.2 Feature

1. **Client-Side Respect** The client-side language will be respected if possible.
2. **Lazy-load** Only load the necessary language into the memory.

### 5.28.3 Difference

Disabled: All the players use the `default_language`.

Enabled: Fuji will **try** to respect the player's client-side language, if the server-side supports.

## 5.29 motd

### 5.29.1 Purpose

This module provides motd customization.

### 5.29.2 Reference

1. <https://colorize.fun/en/minecraft>



## 5.30 multiplier

### 5.30.1 Purpose

This module provides some **numeric multiplier**.

### 5.30.2 Supported Numeric Types

1. **damage** damage to player
2. **experience** experience a player gained

### 5.30.3 Example

Example: Double the damage from zombie to a player

```
/lp group default meta set fuji.multiplier.damage.minecraft:zombie 2
```

Example: Cancel the fall damage

```
/lp group default meta set fuji.multiplier.damage.minecraft:fall 0
```

Example: Double all damage to a player

```
/lp group default meta set fuji.multiplier.damage.all 2
```

Example: Double all experience a player gained

```
/lp group default meta set fuji.multiplier.experience.all 2
```

Example: Half all damage to a player

```
/lp group default meta set fuji.multiplier.damage.all 0.5
```

## 5.31 nametag

### 5.31.1 Purpose

This module provides nametag customization.

### 5.31.2 Configuration

**update\_cron** The cron used for the job to **update** the properties of **display entity**.

**style** Define the style for the nametag **display entity**.

**render** Define the nametag render behaviour.

**Note:** The explanation of each field in style and render

You can refer to the minecraft wiki about **display entity**: <https://minecraft.wiki/w/Display>

### 5.31.3 Example

Example: Set background to blue color

```
"background": -16776961
```

Example: Set half transparency

```
"text_opacity": 128
```

Example: Scale the size of text into double

```
"scale": {  
  "x": 2.0,  
  "y": 2.0,  
  "z": 2.0  
},
```

### 5.31.4 Reference

1. <https://minecraft.wiki/w/Display>

## 5.32 placeholder

### 5.32.1 Purpose

This module provides more `placeholder` for `Text Placeholder API` mod.

### 5.32.2 Placeholder

1. `%fuji:player_mined%` sum of mined blocks of a player
2. `%fuji:server_mined%` sum of mined blocks of a server
3. `%fuji:player_placed%` sum of placed blocks of a player
4. `%fuji:server_placed%` sum of placed blocks of a server
5. `%fuji:player_killed%` sum of killed entities of a player
6. `%fuji:server_killed%` sum of killed entities of a server
7. `%fuji:player_moved%` sum of moved distance of a player
8. `%fuji:server_moved%` sum of moved distance of a server
9. `%fuji:player_playtime%` sum of playtime of a player
10. `%fuji:server_playtime%` sum of playtime of a server
11. `%fuji:health_bar%` the health bar of a player
12. `%fuji:rotate hello%` rotate the string **hello**
13. `%fuji:has_permission%` check luckperms permission
14. `%fuji:has_meta%` get luckperms meta
15. `%fuji:random_player%` get a random online player
16. `%fuji:random 1 5%` get a random number from 1 to 5
17. `%fuji:escape%` escape a placeholder form the parser.

An optional number argument is used as the levels to escape.

18. `%fuji:date%` get current date.

An optional string argument is used to set the **date formatter**, for example, `%fuji:date HH:MM%`.

See also: <https://docs.oracle.com/javase/8/docs/api/java/text/SimpleDateFormat.html>

#### Tip: Use placeholder in language file

It's allowed to write placeholders in language file.

#### Note: Some other mods that provide more placeholders

<https://placeholders.pb4.eu/user/mod-placeholders/>

## 5.33 profiler

### 5.33.1 Purpose

This module shows server health status, such as os, vm, cpu, ram, tps, mspt and gc.

**Warning:**

Enable this module requires spark mod installed.

### 5.33.2 Command

#### 5.33.2.1 /profiler

## **5.34 pvp**

### **5.34.1 Purpose**

This module provide pvp state toggle.

### **5.34.2 Command**

#### **5.34.2.1 /pvp**

## 5.35 rtp

### 5.35.1 Purpose

Provides random teleportation.

### 5.35.2 Feature

1. Per dimension configurable.
2. Ignore fluid blocks, such as water and lava.
3. Ignore powered snow.

### 5.35.3 Command

#### 5.35.3.1 /rtp

##### 5.35.3.1.1 Argument

1. **--dimension** target dimension

#### Tip: Improve the performance on rtp

It's highly recommended to pre-gen the world chunks. To gen a new chunk during rtp requires about 2 10 seconds. If a chunk is pre-gen, then it will be fast.

### 5.35.4 Configuration

**setup** Teleport setup per dimension. Dimensions that are not in the list will be disabled to rtp.

## 5.36 skin

### 5.36.1 Purpose

This module provides skin management.

### 5.36.2 Command

#### 5.36.2.1 /skin

### 5.36.3 Configuration

**default\_skin** The default skin used for player who has no skin set.

**random\_skins** Random skin for fake-player, if you enable the local skin for fake-player.

## 5.37 system\_message

### 5.37.1 Purpose

This module provides **system message** customization.

#### Note: What is system message?

Here are some messages that are system message:

1. player join and leave server message
2. player advancement message
3. player death message
4. player command feedback
5. player whitelist message

#### Note: Server-side message and Client-side message

It should be noted that, no all messages inside **mojang's official language file** are server-side message. If a message is client-side message, which means that the message is only used in client-side, then the module will have no effects on this message.

#### Warning: Possible conflicting with StyledChat

If you are using this module with **StyledChat** mod installed, you need to remove the conflicting **language keys** in **key2value** configuration.

See also: <https://github.com/sakurawald/fuji/issues/65>

#### Example: Custom the player join and leave message.

```
"system_message": {  
  "enable": true,  
  "key2value": {  
    "multiplayer.player.joined": "<rainbow>+ %s",  
    "multiplayer.player.left": "<dark_gray>%s leeeeeeeft the game"  
  }  
},
```



Example: Custom a specific death message.

```
"system_message": {
  "enable": true,
  "key2value": {
    "death.attack.explosion.player": "<rainbow>%1$s boooooooooom because of
    ↪ %2$s"
  }
},
```

Example: Custom messages used in screen.

```
"system_message": {
  "enable": true,
  "key2value": {
    "multiplayer.disconnect.server_shutdown": "Server closeeeeeeeed",
    "multiplayer.disconnect.not_whitelisted": "<rainbow>Please apply a
    ↪ whitelist first!"
  }
},
```

Example: Custom the vanilla command feedback.

```
"system_message": {
  "enable": true,
  "key2value": {
    "commands.seed.success": "<rainbow> Seeeeeeeeeeeed: %s"
  }
},
```

## 5.38 tab\_list

### 5.38.1 Purpose

This module provides tab list customization.

### 5.38.2 Configuration

**update\_cron** The cron used for the job to update the tab list.

**style** The style for tab list.

### 5.38.3 Sub-Module

### 5.38.3.1 sort

#### 5.38.3.1.1 Purpose

If enable this module, the `player names` in `tab list` will be sorted by `weight`.

The default weight is 0, the range of weight is  $[0, 675]$ , which means you can set at most 676 sort groups.

#### 5.38.3.1.2 How it works

The tab list sort method is client-side decided. So the workaround is to send virtual-player entry to the client-side, and hide the real player in client-side's tablist.

In this case, the client-side will find that, all command target selector will display the virtual-player. And you can see the virtual-player in client-side's Player Reporting UI.

**Note: The virtual player has no performance issue**

The virtual-player is just an entry listed in tab list, when the client ask the server tab list, the server lie with the virtual-player list.

There is not a real player entity in the server side, so no extra performance problem.

The sync method is event-based, and cached, so the performance is good.

#### 5.38.3.1.3 Example

**Example: Set a weight in a group**

Issue the command `/lp group default meta set fuji.tab_list.sort.weight 1`

After you set a new weight, you should issue `/fuji reload` or re-connect to refresh the tab-list.

#### 5.38.3.1.4 Sub-Module

##### 5.38.3.1.4.1 sync\_game\_profile

###### 5.38.3.1.4.1.1 Purpose

Whether to copy the game profile from real-player to virtual-player.

### **5.38.3.2 faker**

#### **5.38.3.2.1 Purpose**

This module is used to send random fake data to client.

## 5.39 teleport\_warmup

### 5.39.1 Purpose

This module adds a warmup cooldown before player-teleportation.

A teleportation will be interrupted if:

1. the player runs too far.
2. the player gets damage.
3. the player is in combat.

### 5.39.2 Configuration

**warmup\_second** The second to wait before the teleportation.

**interrupt\_distance** How far should we cancel the teleportation.

**dimension** Only allowed in the following dimensions.

**Warning: Dimensions that created by other mods may have special behaviour**

Some other mods will add extra dimension (like, the mod the-bumblezone-fabric). Their dimension portal may work in a different way, so this module may not be compatible with these mods.

In the default options, we only allow this module works in the vanilla minecraft dimensions.

## 5.40 temp\_ban

### 5.40.1 Purpose

This module provides temp-ban.

### 5.40.2 Command

#### 5.40.2.1 /temp-ban

### 5.40.3 Example

Example:

```
/temp-ban player Steve 12h30m15s bad boy
```

## 5.41 tester

### 5.41.1 Purpose

This module is only used for development. If you are a developer, you can register new commands into this module for test-purpose.

### 5.41.2 Command

#### 5.41.2.1 /tester

**Warning:**

You should not use this module at the production-environment, because it almost does nothing useful.

## 5.42 top\_chunks

### 5.42.1 Purpose

This module compute a **laggy score** for all loaded chunks, and return the topN lagged chunks. Higher score means more lagged.

### 5.42.2 Command

#### 5.42.2.1 /chunks

### 5.42.3 Configuration

**top** The top chunks to show in **/chunks** command

**nearest\_distance** For a chunk, how much the radius used to search the nearest player around the chunk.

**hide\_location** Should we hide the chunk-position for a lagged-chunk? Hide chunk location to avoid grief or privacy purpose.

**type2score** The dict to define how lagged a type(entity/entity\_block) should be.  
For example:

#### Example: What is the meaning of type2score field?

The configuration means that if there are 15 zombies inside a chunk, then the chunk gets score  $15 * 4 = 60$ . Any other types not specified in type2score will use the score defined for type **default**.

```
"type2score": {  
  "entity.minecraft.zombie": 4,  
  "default": 1  
}
```



## 5.43 tpa

### 5.43.1 Purpose

This module provides teleport request for players.

### 5.43.2 Command

**5.43.2.1** /tpa

**5.43.2.2** /tpahere

**5.43.2.3** /tpaaccept

**5.43.2.4** /tpadeny

**5.43.2.5** /tpacancel

### 5.43.3 Configuration

**timeout** Tpa request expiration duration, unit is second.

**mention\_player** See [5.4.2.1.4](#)

## **5.44 view**

### **5.44.1 Purpose**

This module provides the player slot editor.

### **5.44.2 Command**

**5.44.2.1** `/view inv`

**5.44.2.2** `/view ender`

## 5.45 whitelist

### 5.45.1 Purpose

This module makes the mojang vanilla whitelist system only compares the **username** and **ignore UUID**.

**Warning:** Only enable this module in offline-mode server

If you are hosting a online-mode server, you will never need to enable this module.

## 5.46 works

### 5.46.1 Purpose

This module provides a bill-board gui for players to show their **works**.

### 5.46.2 Concept

A **work** is a **teleporation point**.

The types of work are as follows:

1. **Non-Production-Work** the project don't produce any resource (e.g. bone, string, coal).
2. **Production-Work** the project produce some resource.

**Note: The main difference between non-production work and production-work**

For a production-work, fuji provides the **production sample** to count the **hopper** and **minecart-hopper**

**Tip: About the production counter**

1. You can use the production counter provided by production work to sample the output.
2. This module works with carpet-fabric's hopper counter. You can use both of them at the same time.
3. The hopper counter provided by this module will not destroy the item.

### 5.46.3 Command

1. `/works`

### 5.46.4 Configuration

**sample\_time\_ms** For a production-work, how long should we sample it?

**sample\_distance\_limit** For a production-work, how large the radius should we considered as the work's production.

**sample\_counter\_top\_n** For a production-work, we only display the topN output items.

## 5.47 world

### 5.47.1 Purpose

Provides a unified world management.

### 5.47.2 Command

#### 5.47.2.1 /world

### 5.47.3 Concept

**Example:** What is the difference between world, dimension and dimension type?

Well, in the early stage of minecraft, a **world** only support **single-dimension**, which means 1 world only contains 1 dimension.

But now, 1 world supports multi dimension. Sometimes, you will see **world** and **dimension** means the same thing.

But clearer, we say: 1 world can contain 1 or more dimension, and each dimension has its **dimension type**.

Usually, you can say a mod adds extra dimension type and **creates an extra dimension** with that dimension type instead of **creating extra world**.

See also: [https://minecraft.wiki/w/Dimension\\_definition](https://minecraft.wiki/w/Dimension_definition)

See also: [https://minecraft.wiki/w/Dimension\\_type](https://minecraft.wiki/w/Dimension_type)

**Tip:** The dimension and dimension types in vanilla minecraft

In vanilla minecraft, 1 world contains 3 dimensions:

1. minecraft:overworld
2. minecraft:the\_nether
3. minecraft:the\_end

You can see the dimensions of a world in **world/level.dat** file.

A dimension type is used to create dimensions, the vanilla minecraft has the following dimension type:

1. minecraft:overworld
2. minecraft:overworld\_caves
3. minecraft:the\_nether
4. minecraft:the\_end

The file **server.properties** is used for **the only and default world**.

#### 5.47.4 Configuration

**blacklist** The dimensions in the blacklist will not be operated by this module. Use blacklist to avoid mis-operation.

#### 5.47.5 Example

Example: Create an extra the\_nether dimension

```
/world create my_nether minecraft:the_nether
```

Example: Delete the extra dimension

```
/world delete fuji:my_nether
```

Example: Reset the extra dimension with random seed

```
/world reset fuji:my_nether
```

Example: Specify a seed for an extra dimension.

```
/world create my_nether minecraft:the_nether --seed 1234567890  
/world reset --use-the-same-seed true fuji:my_nether
```

**Tip:** Make a resource-world that automatically reset every day

You can use command-scheduler module to execute `world reset` command automatically.

## 5.48 world\_downloader

### 5.48.1 Purpose

This module allows a player to download nearby chunks.

### 5.48.2 Configuration

**url\_format** The url format used to broadcast.

**port** The port used for downloader http-service.

**bytes\_per\_second\_limit** Max download speed for each connection.

**context\_cache\_size** Max download request saved in the memory.

# Chapter 6

## Q&A

### 6.1 Where is the configuration files?

As a convention, all the files are placed in `config/fuji/` directory.

### 6.2 What is .json file?

A json file is a text file, whose name normally ends with `.json`.

### 6.3 How can I edit a configuration file?

To ensure the `readable` and `transparent`, most of the files are saved as `pure text format`. You can open them with a `text editor`.

**Tip:** Use a modern text editor.

Some files may have a large number of lines, so it's highly recommended to use a `modern` text editor, which can highlight symbols and reveal the structure of the file, such as:

1. `Visual Studio Code`
2. `Visual Studio Code - Web Online Editor`
3. `Vim`
4. `Emacs`
5. `Sublime Text`

### 6.4 What is .dat file?

The file whose name ends with `.dat` are the `vanilla minecraft NBT format file`. To open such a file, you need to use a `NBT Editor`, such as `NBTExplorer`.



## 6.5 How to update fuji to a new version?

### 6.5.1 Backup the data

Back up the `config/fuji` directory.

### 6.5.2 Test the new version in your test-environment

Put the new version of fuji into `mods/` directory, start the server, and adjust the configuration to what you want.

**Warning: Don't test new changes directly in your production-environment**

It's highly recommended to setup a test-environment for a network-maintainer, so that you can test and tweak installed mods into what you want, and avoid un-expected situations.

### 6.5.3 Apply the changes to production-environment

Now, it's ready to apply the changes to your production-environment.

## 6.6 Fuji conflits with one of my mods.

You can disable the conflicting module. If possible, create an issue at [fuji issue page](#), so that we can solve this later.

## 6.7 Can I ask the forge or neoforge support?

We have no plan for forge or neoforge platform. However, you can try running this mod via **sinytra-connector** mod. It's tested the mod works in the following environment:

Loader: NeoForge v21.0.167 **for** Minecraft 1.21

Mods:

- connector-2.0.0-beta.1+1.21-full
- forgified-fabric-api-0.101.2+2.0.10+1.21
- fuji-1.5.5-release-220305a69b

Don't enable the **world** module and **command\_permission** module

## 6.8 How can I report bugs or suggest new features?

You can create an issue at [fuji issue page](#)

## Chapter 7

# Transformer

### 7.1 Command Transformer

The following commands can be transformed:

1. `/blockcycling` = `/give player minecraft:debug_stick`
2. `/blockinfo` = `/data get block`
3. `/blocknbt` = `/data get block`
4. `/entityinfo` = `/data get entity`
5. `/entitynbt` = `/data get entity`
6. `/customrecipe` = **recipe editor**
7. `/exp` = `/experience`
8. `/gm`, `/gms`, `/gms` = `/gamemode`
9. `/findbiome` = `/locate biome`
10. `/tempfly` = `use luckperms temporal permission`
11. `/flyspeed` = `/attribute player minecraft:generic.flying_speed`
12. `/walkspeed` = `/attribute player minecraft:movement_speed`
13. `/maxhealth` = `/attribute player minecraft:generic.max_health`
14. `/groundclean` = `/kill @e[type=...]`
15. `/spawner` = `interact spawner block with spawn egg`
16. `/spawnmob` = `/summon`
17. `/shoot` = `/summon with motion`
18. `/smite`, `/thunder` = `/summon minecraft:lightning_bolt`

19. `/stats, /statsedit` = all stats files are located in `world/stats`
20. `/tree` = use `tree brush` from `world-edit` mod
21. `/unbreakable` = `/enchant player minecraft:unbreaking`
22. `/item_maker` = `/give`
23. `/replaceblock` = `/setblock`
24. `chunks loading/unloading commands` = These commands will not bring performance improvements.
25. `/note` = `/attachment get note`
26. `/...all` = `/foreach ...`
27. `/cuff` = use `anti-build` module with `string` permission
28. `/cheque` = use `command-attachment` module to make magic item

## 7.2 Command Generator

You can generate complex and powerful commands using:

1. <https://www.digminecraft.com/generators/>
2. <https://minecraft.tools/en/public-gallery.php>

## Chapter 8

# Development

### 8.1 Setup the development environment

1. Clone the source:

```
git clone https://github.com/sakurawald/fuji.git
```

2. Change the working-directory:

```
cd fuji
```

3. Compile the source:

```
./gradlew build
```

## Chapter 9

# Suggestion

### 9.1 Suggestion on server-side mods

#### 9.1.1 Explanation

Here is some mods that existing and recommended to use, which can make your life easier in fabric server-side crafting.

Note that fuji doesn't require these mods installed to work, and some of these mods have the same functionality as fuji.

If you want to taste something different, and if some of the mods provides a better experience than fuji, then you can just disable the module in fuji, and go use it.

**Tip: Decide according to your situation**

The suggestion is personal, you should make decision according to your preference.

### 9.1.2 Server-side mode list

1. `anti xray`
2. `armor stand editor`
3. `ban hammer`
4. `sit`
5. `carpet`
6. `essential commands`
7. `goml`
8. `head index`
9. `image2map`
10. `inv view`
11. `krypton`
12. `ledger`
13. `lithium`
14. `luckperms`
15. `mod viewer`
16. `ouch`
17. `skin restorer`
18. `spark`
19. `styled chat`
20. `styled nickname`
21. `styled sidebar`
22. `styled player list`
23. `taterzens`
24. `universal graves`
25. `universal shop`
26. `vanilla permission`
27. `vanish`
28. `blue map`

- 29. chunky
- 30. husk homes
- 31. mini motd
- 32. tab
- 33. sleep warp
- 34. world-edit