RestrictIO

Banning blocks and items with ease

RestrictIO

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Ban Entry Structure

Every ban entry has a structure consisting of Criterias, Actions and Triggers

Criterias

A ban entry may have multiple criterias that will be matched against when checking a block or item. Every criteria has to match for a ban entry to fit.

Name	Parameters	Description
ID	String itemID	Match the item id (e.g. `minecraft:stone`). Blocks without a corresponding item can't be matched
Meta	int meta	Match the item meta or damage.
Dimension	String dimName	the world name where the entry should apply. The id is also allowed
Nbt	String nbtJson	Matches the item's NBT tag. For blocks it matches to the tile entity's NBT. For blocks without tile entity this criteria will be ignored.
Player	String name	The playername of the player for which the the entry should be valid
Mod	String modid	The modID the item will be matched against. The modID is the first part of the item's resource location (e.g. `minecraft` for `minecraft:stone`)
Not	Criteria crit	Negates a given criteria (e.g. `Not(Dimension(0))` will be any dimension exept 0)
And	Criteria c1, Criteria c2	Combines two criterias with a logical AND. This is not very useful in the ban entry itself because the criterias in the ban entry are already linked to each other with AND
Or	Criteria c1, Criteria c2	Combines two criterias with a logical OR

Actions

A ban entry may have multiple actions that will be executed when an item or block matches its criterias.

Name	Parameters	Description
Remove	-	Removes the item or block from the world. By default the player can keep the block or item that is banned (this is useful when an item is only banned in some dimensions).
Message	String message	Prints a message to the player.
Log	-	Logs the incident to the console
Kick	String kickMessage	Kicks the player from the server with the given message
Ban	String kickMessage, String banMessage	Bans a player from the server
ServerCommand	String command	Executes a command in a console point of view
PlayerCommand	String command	Executes a command in a player point of view

The command of ServerCommand and PlayerCommand has some patterns for the execution environment:

%p	The player name
%uuid	The player's UUID with hypens
%id	The item id
%meta	The item meta / damage
%size	The item stack size
%dim	The dimension id of the incident

Triggers

There are different incidents where RestrictIO checks whether the item or block is banned. You can specify for every Ban entry in which case it should be checked.

Name	Description	Checked Items	Performance Cost
BlockBreak	When a block gets broken	The block being broken	low
BlockPlace	When a block gets placed	The block being placed	low
InvScan	Periodic (all 30s) scan of all player inventories	All stacks in the player's inventory	low
ItemDrop	When a player drops an item or when he dies	The item(s) being dropped	low
ItemPickup	When a player tries to pickup an item	The items will be picked up	high
ItemInteract	When a player interacts (item rightclick, block left or rightclick)	The (optional) block the player interacts with and/or (optional) the item in hand	very high
ReciepeRegistration	When the reciepes get registered. The reciepe will be disabled globally!	All standard shape(less) crafting outputs	on startup

> For performance reasons you should use as few triggers as possible for your needs.

> Don't use BlockBreak/BlockPlace in conjunction with ItemInteract!
> ItemInteract covers the them.

Examples:

- Blocking a machine that is not placed
  - BlockPlace
  - ReciepeRegistration (when not allowed anywhere)
- Blocking a machine that may have already been placed
  - ItemInteract
  - ReciepeRegistration (when not allowed anywhere).
- Completely blocking an item or block that is already in inventories and in the world
  - ItemDrop

- ItemPickup
- ItemInteract
- ReciepeRegistration
- InvScan

Manage Bans

After you got to read what a ban consists of we have to talk about adding and removing bans.

Ingame GUI

RestrictIO has an ingame GUI that can be opened with `/rio gui` .

RestrictIO command

You can manage the bans over the console with the `/rio` commands.

> Unfortunately you can't edit a ban over console - you have to remove the old and recreate it. Alternatively you can edit a ban with the ingame GUI or by editing the file.

Adding a ban

`/rio ban <criterias> <actions> <triggers>`

- Criterias:

  `none` or a comma-separated list of criterias (see [criteria list](#))
- Actions:

  `none` or a comma-separated list of actions (see [action list](#))
- Triggers:

  `none` or `all` or a comma-separated list of triggers (see [trigger list](#))

> If you want to use spaces in strings like in the Message action, use underscores instead of spaces!
> If you explicitly want to use underscores, escape them with a backslashes.

Examples:

`rio ban ID(minecraft:wool),meta(12) remove(),Message(This_is_banned!!!) all`
    removes brown wool and gives a message at all incidents.

`rio ban mod(minecraft) none blockbreak,blockplace`
    blocks any block break or place without any other action

Removing a ban

`rio unban <index>` removes a ban entry of the ban list at the specified index. You can obtain the index with `/rio list`. Note that if you want to delete several entries, the index may be moved.

File editing

RestrictIO uses the JSON format for storing the ban entries. The file is located at `./config/RestrictIO/restrictedItems.json` .

It is only useful to edit current values as it is fairly simple (i.e. if you don't have enough space for your text in the GUI or console). Adding new criterias/actions/etc. needs you to know the field names (the JSON is a serialization of the data structure in the core). For that you have to look into the source code.

If you have edited your file you can reload it with `rio reload` .

Commands / Admin OptOut

Commands

/restrictio <subcommand>

This is the main command of RestrictIO. It can also be accessed by `/rio`.

Subcommand	Additional Parameters	Description
gui	-	Opens a GUI if the console is too ugly for you
reload	-	Reloads the config, overrides current config if it succeeds to load the new config
list	-	Lists all current ban entries
ignore	optional playername	executes /ignoreitembans
show	entry index	Shows a single ban entry
ban	criterias, actions, triggers	Creates and adds a new ban entry (see managing bans). Saves the config afterwards
unban	entry index	Removes a ban entry. Saves the config afterwards

/ignoreitembans

As an admin you might want to ignore the restrictions given for the users. In the individual entries you can of course exclude yourself with a player criteria, but this might be easier with `/ignoreitembans` or `/rio ignore`. This command toggles a optOut for you or the player you specified in the arguments. You can also toggle this in the mod's GUI.