

# Ban Entry Structure

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

- Criterias
- Actions
- Triggers

# Criteria

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. <code>minecraft:stone</code> ). 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. <code>minecraft</code> for <code>minecraft:stone</code> )
Not	Criteria crit	Negates a given criteria (e.g. <code>Not(Dimension(0))</code> will be any dimension except 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. <u>The reciepe will be disabled globally!</u>	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