### **Taxes**

Taxes are the idea that <u>Citizens</u> must pay a sum of Diamonds to the <u>Government</u> where they are put into the <u>Treasure</u>. The Diamonds in the <u>Treasure</u> are then used to fund <u>Public</u> <u>Assignments</u> which work to better all or a majority of <u>Citizens</u>.

### Tax Period

Every 10 Minecraft days, if a <u>Citizen</u> has played for a sum of more than 10 real minutes--not including time AFKing--they are <u>required to pay their taxes</u> within a 1 Minecraft day period of when they are next on the <u>World</u> or not AFK.

AFKing is defined as not speaking, moving or involving with the World.

The taxpayer, Citizen, must following the proper Taxpaying Process.

# Taxpaying Process

A <u>Citizen</u> will receive a signed book which explains how much they owe in **Taxes** in their <u>mailbox</u>. They must deliver the signed tax book and the required amount of Diamonds to a <u>Public Tax Mailbox</u> within the <u>tax period deadline</u>. Tax books should be discarded via destruction (cactus, lava, fire) when they are completed or stored in a vault.

Taking Diamonds or signed tax books from a *Public Tax Mailbox* for personal use (not moving the tax money to the <u>Treasure</u>) is considered a <u>Crime</u>.

A *Public Tax Mailbox* is a <u>mailbox</u> which follows all <u>Mailbox Construction and Placement</u> rules but is located in <u>Public Property</u> and owned by the <u>Government</u> for use in collecting **Taxes**.

Taxes aren't due on time (within the <u>tax period deadline</u>) if the <u>Citizen</u> who pays the <u>Taxes</u> is <u>Imprisoned</u>. Instead, the <u>Taxes</u> are due 15 days after they leave <u>prison</u>.

# Tax Calculation Process

To calculate **Taxes** a Citizen should:

- 1. Compute the Property Metric for all Properties they own.
- 2. Apply Implicit Tax Incentives to the Property Metrics.
- 3. Calculate the **Default Tax Amount**.
- 4. Apply the <u>Circumstantial Tax Value</u> to their <u>Default Tax Amount</u>.
- 5. If there are any <u>Tax Increases</u> they should be applied after everything else.

#### What this means is that:

- Taxes mainly get larger as the size of a <u>Citizen</u>'s <u>Private Property</u>, <u>Shared Private</u>
  <u>Property</u> or <u>Owned Property</u> gets larger <u>without considering height</u>.
- <u>Elected Officials</u> can *partially* control how much money you pay in <u>Taxes</u>.
- Destroying your (<u>Property Owner's</u>) <u>Property</u> can result in increases in taxes and pricing. <u>Even though you own the property</u>; you are buying a sub-lease from the Government.
- Buying <u>Property</u> in certain areas is less expensive or more expensive.
- <u>Citizens</u> with no <u>Property</u> owe less taxes than those with <u>Large Property</u> but owe more than those with <u>Small Property</u>.

## Default Tax Amount

The **Default Tax Amount** is the amount of **Taxes** that is paid by default.

If a **Default Tax Amount** comes out with more than 2 decimals, it should be rounded to 2 decimal places.

### For Citizens who are *not* Property Owners

<u>Citizens</u> who are not <u>Property Owners</u> owe the <u>Government</u> a tax of 3 Diamonds for every 27 stacks of items they own in storage containers (not including chests, shulker boxes and ender chests).

# Math

Let m be the amount of item stacks a player stores in containers at their Primary Residence.

Let  $d = \lfloor \frac{m}{27} \rfloor * 3$  be the final, default tax amount a Citizen owes.

If a <u>Citizen</u> is not a <u>Property Owner</u> and also doesn't own at least 27 stacks of items in storage containers (not including chests, shulker boxes and ender chests) they owe a flat

value of 5 Diamonds to the Government. This counts as a Default Tax Amount.

a stack is defined as a Minecraft item slot which contains something.

## For Citizens who are Property Owners

The equation below describes how to tax <u>Citizens</u> with different types of <u>Properties</u>. Generally speaking:

- Private Property Owners owe the default tax value
- <u>Shared Private Property Owners</u> owe extra tax based on the number of members who have resided (slept, stored, or used as their <u>primary residence</u>) in their <u>Shared Private</u> <u>Property.</u>
- Owned Property Owners owe 130% the taxes of a Private Property Owner.

#### Math

Let  $P = [p_1, p_2, ..., p_n]$  be a list which represents each property metric a Citizen owns where incentives have already been applied.

Let  $R = [r_1, r_2, \dots, r_n]$  be a list which represents the number of residents which have residence Private Property a Citizen owns.

If a Property isn't a Shared Private Property, the value of r should be a default value, 0.

$$\text{Let } f(p,r) = \begin{cases} \frac{p}{200}\,, & \text{if Property is a Private Property} \\ \frac{p}{200} * (1 + \frac{r}{10}), & \text{if Property is a Shared Private Property} \\ \frac{p}{100}, & \text{if Property is an Owned Property} \end{cases}$$

describe the operation to be performed on a Citizen's Property based on what kind of Property the particular property the Citizen owns is.

Let 
$$d = \sum_{i} f(P_i, R_i)$$
 be the default tax amount a Citizen owes.

### Circumstantial Tax Value

The Circumstantial Tax Value is a value which modifies the <u>Default Tax Amount</u> after all calculations. The Circumstantial Tax Value starts at 0.00 and can be <u>adjusted by elected officials</u> in increments of 0.05 per <u>Elected Official</u>. The Circumstantial Tax Value is calculated via the equation below. The Circumstantial Tax Value cannot go below -0.75 and cannot exceed 3. Attempts to do so will result in no change.



Let c be the Circumstantial Tax Value Let d be the Default Tax Amount

Let  $t = \lceil (c+1) * d \rceil$  be the total tax amount

# Implicit Tax Incentives

Implicit Tax Incentives are motives to build or not build in certain <u>Landarea</u> by increasing or decreasing taxes in said <u>Landarea</u>.

Implicit Tax Incentives may also be referred to as Incentives or Incentives Programs.

If a <u>Property Metric</u> with all applicable incentives applied comes out with more than 2 decimals, it should be rounded to 2 decimal places.

All increases and decreases are added together before being applied to the <u>Property</u>. <u>Metric</u> of the <u>Property</u>. The formula below describes how to compute incentives.

### Math

Let x be the Property Metric of any given Property. Let U be a multiset containing 1 and all applicable incentive values.

Let  $p = x * (1 + (\sum_{i} U_i))$  be the Property Metric with all applicable incentives applied.

### Below the Ice Incentive

The **Below the Ice Incentive** aims to incentivize <u>Citizens</u> to build under the ice and disincentivize them from building above the ice.

<u>Property</u> which does not have ice above, below or inside of it is not considered in this incentive.

# For Property Owners Under the Ice

Property Owners who own Property under the ice get a 30% reduction in Taxes.

*Under the ice* is defined as <u>Property</u> which is underneath the ice in a glacier biome, not underground and leaves an at least 1 block gap between the ice and the property (<u>Y</u>61 inclusive).

<u>Properties</u> with larger (95% or more <u>volumetric</u>) portions <u>above the ice</u> are not considered <u>under the ice</u>.

$$u \cup \{-0.3\}$$

## For Property Owners On or Above the Ice

Property Owners who own Property above the ice get a 30% increase in Taxes.

Above the ice is defined as <u>Property</u> which is above the ice (<u>Y</u>64 inclusive) which at least 1 block of sits anywhere above the ice in a glacier biome.

<u>Properties</u> with larger (95% or more <u>volumetric</u>) portions <u>under the ice</u> are not considered <u>above the ice</u>.

$$u \cup \{0.3\}$$

### For Property Owners who Puncture the Ice

<u>Property Owners</u> who own <u>Property puncturing the ice</u> get a 15% increase in **Taxes**. <u>Puncturing the ice</u> is defined as <u>Property</u> which is at least partially in the ice (<u>Y</u>62 - 63 inclusive) inside of a glacier biome.

$$u \cup \{0.15\}$$

## Private Property over Owned Property Incentive

The **Private Property over Owned Property Incentive** aims to incentivize <u>Citizens</u> to build within <u>Hard Land</u>.

Owned Property gets a 30% increase in Taxes.

$$u \cup \{0.30\}$$