Metadata

Each game *version* comes with slightly different parameters of various items, changed as the game evolved. We provide such metadata for each version of the game.

The metadata archive has the following directory structure:

- version/
  - metadata.json
  - units.csv
  - weapons.csv
  - gadgets.csv
  - Map*X*/
    - metadata.json
    - obstacle.png
    - unwalkable_regions.png
    - rooftop.png
    - teleporters.png
    - control points.png
    - generators.png

Files description:

version/metadata.json:

Metadata specific for a given game version, for e.g. how much HP a unit has, how much damage weapons inflict. It contains a dictionary describing categories: “Camos”, “Mines”, “Units”, “Armors”, “Robots”, “Mortars”, “Shields”, “Weapons”, “Grenades”, “SentryGuns”, “Stimulants”.

Each category has a list of entries where each entry contains fields:

- *Id* - textual ID referred from *unitId / weaponId / gadgetId / armorId / cloackId* etc…
- *Name* - human-friendly name
- + category-dependent features. For example “Units” have “*Ap*”, “*Hp*” and some other stats.

Note: In the unit's gadgets list there may be entries with ID not represented in metadata. Such IDs (e.g. *btrRam01*) correspond to the unique perks of each unit type. More about them might be found in the game description.

version/units.csv

Units stats for playable characters in tabular format . Columns correspond to respective dictionary fields in the “Units” category.

version/weapons.csv

Weapon stats for playable weapons in tabular format. Columns correspond to respective dictionary fields in the “Weapons” category.

version/gadgets.csv

Combined table with remaining gadgets selectable during loadout. Columns correspond to the union of columns in respective categories. The new column *TYPE* represents the category.

Maps

The game features 24 unique multiplayer maps. The maps may vary a bit between the game versions. Each map is described through a set of files:

version/MapX/*.png – (X in 1, …, 24)
PNG images of game map layers, white color indicate the specific region:

- **obstacle.png** - areas that are impassable and cannot be shot through
- **unwalkable_regions.png** - areas that are impassable, but may be shot through
- **rootop.png** - roof covers - a player may “see under a roof” only if their unit is under the same roof
- **control_points.png** - locations of control points in Domination mode

The following files have multiple colors on them.
teleporters.png - location of teleporters. a pair of teleporters is indicated by the same value on all 4 RGBA channels (up to 3 different shades of gray with always the same pixel value)
generators.png - location of generators, team 0’s generators are indicated by a white color and team 1’s by ~25% value on all 3 channels

version/MapX/metadata.json
Metadata of **X**-th map. Metadata contains fields:

- *x_min, y_min* - Game units location of the bottom left corner of the map
- *x_max, y_max* - Game units location of the top right corner of the map
- *height, width* - Game units height/width of a map
- *game_to_pixel_scale* - One Game unit corresponds to X image pixels

Game units to pixel conversion

Let’s index the map image pixels with X and Y, where X increased to the right from 0 and Y to the bottom (i.e. (0, 0) represents the top left corner). Let *obj* be a single entry of the Flattened Logs representation, where:

```
x = obj[‘State’][‘tr’][‘pX’]
y = obj[‘State’][‘tr’][‘pY’]
```

Then obj’s center location on the map layer is:

```
X = (x - x_min) * game_to_pixel_scale
Y = (y_max - y) * game_to_pixel_scale
```