

Mission Editor

The Mission Editor enables design to create specific mission types that are then propagated into the overall Mission Wrapper System. So if design creates and saves four mission types then there's a 25% chance of one of those mission types being triggered whenever the player flies to a new island.

The following parameters will be used by design to create and save missions:

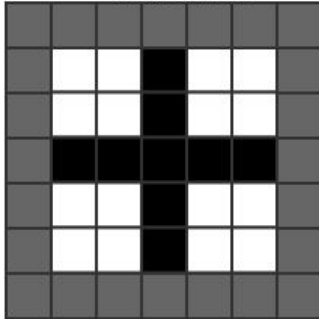
- Name
 - Simply the save name for the mission
- Load Mission
 - This is ideally done by having a side panel showing all existing missions - left-click on one to load that mission
- Enable Mission
 - This is a checkbox that when checked allows the mission to be used during gameplay - if unchecked the mission won't be used by the Mission Wrapper System
- Difficulty rating
 - Numeric
- Theme
 - We need to make sure that everything that can populate an environment is tagged - these will be standard tags across the board - fantasy, scifi, etc. - ideally later we can possibly even swap out skyboxes
 - These tags can be applied to anything populating the environment - environmental objects (trees, etc.), voxels, enemies, and so forth
 - The theme will act as a top-level filter for all drop-down options in the Mission Editor - so if fantasy is selected then only fantasy-tagged objectives, voxel camps, enemies, etc. will be displayed
- Objective(s)
 - A drop-down or side-panel population that allows design to link objective(s) (created through the Objective Editor) to the mission
 - Ideally design can link multiple objectives to a mission
 - In this event the starting objective messaging sequentially lists all objective text (defined through the Objective Editor)
 - We should consider also enabling prerequisites - it can be a toggle where the objectives have to be done in order
 - We'll also need to look into making sure we're effectively communicating objectives - especially when more than one are concurrently active
- Voxel Structure Camps Bucket
 - A drop-down or side-panel population that allows design to link Voxel Structure Camps (via the [Voxel Population System](#) - still to be finished spec-wise) to the mission
 - Consider the ability to create template camps - where everything is laid out specifically
- Min Voxel Structure Camps - *discuss how flat areas are generated with regard to gameplay*
 - Specifies the minimum number of voxel camps to be found on an island
- Max Voxel Structure Camps
 - Specifies the maximum number of voxel camps to be found on an island

- Enemies Bucket
 - A drop-down or side-panel population that enables design to specify the types of enemies to be found during the mission
- Min Enemies per Camp
 - Specifies the minimum number of enemies to be found in a voxel structure camp
- Max Enemies per Camp
 - Specifies the max number of enemies to be found in a voxel structure camp
- Turrets Bucket
 - A drop-down or side-panel population that enables design to specify the types of enemy turrets to be found during the mission
- Min Turrets per Camp
 - Specifies the minimum number of turrets to be found in a voxel structure camp
- Max Turrets per Camp
 - Specifies the max number of turrets to be found in a voxel structure camp
- Spawners Bucket
 - A drop-down or side-panel population that enables design to specify the types of enemy spawners (spawn devices, spawn cannons, etc.) to be found during the mission
- Min Spawners per Camp
 - Specifies the minimum number of spawners to be found in a voxel structure camp
- Max Spawners per Camp
 - Specifies the max number of spawners to be found in a voxel structure camp

Overview:

The system is designed around 2D tiles. The idea is that since it is flat, we don't have to worry about a 3rd dimension. At its core, there are tiles where voxel structures can potentially spawn, and tiles where it would make sense for turrets/spawners to appear. This system could allow for more flexible camp structure later if we want to keep the thought of a "voxel area" bordered by a "turret/spawner area".

Each small square is 30 x 30 voxels in size



2x2 White areas would be where buildings could potentially spawn.
NOTE: Only 1 building would spawn per 2x2 area

Black areas would be where enemies could potentially spawn

Grey area would be where turrets/spawners could spawn

Example of a medium camp

5 x 5 grid

Tools:

1. Drop down menu to populate possible structures per 2x2 square for each size of camp.
NOTE: These apply to ALL 2x2s, not individual ones. Each would be given a % chance of spawning

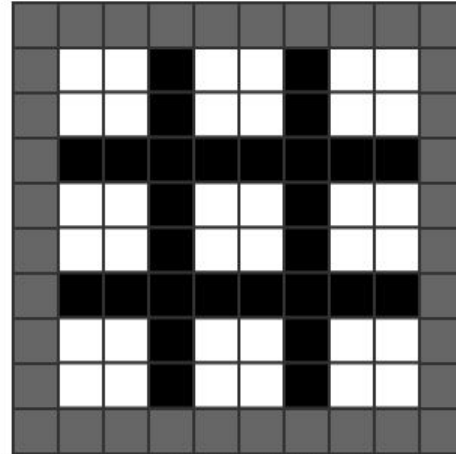
Ex.
Small Sci-Fi Camp 1:
- BuildingSmall.qef - 25%
- StatueMedium.qef - 25%
- BarrierLarge.qef - 50%

2. Drop down menu to populate possible spawners and turrets for the grey squares

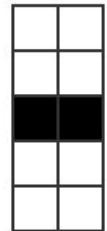
Ex.

Large Fantasy Camp 1:
- Golem Spawner - 5%
- Turret - 15%

3. Enemy spawn numbers and types would be determined by the mission wrapper, and given an even or clumped distribution throughout the black squares based upon a TBD algorithm



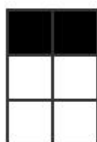
Example of a large camp



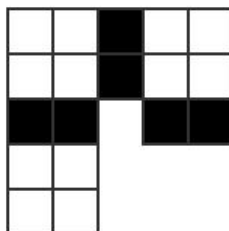
Example of a small camp

Approach 2: Node-based

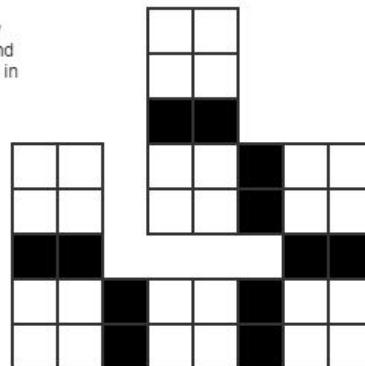
Instead of operating on a grid with a predetermined set of white, black, and grey spaces, we could treat this modularly. Having each node comprised of one 2x2 white space, bordered by a 1x2 black space. We could potentially devise a way to create camps by linking these white spaces and black spaces together to form more free-form shapes and stopping at a min-max number of "nodes" to form camp sizes. Grey spaces to be added in after this initial pass?



One node



potential small camp example



potential larger camp example