

Province Map Builder

Grand Strategy Map Tool for Godot Game Engine

What is Province Map Builder?

Province Map Builder is a Godot Engine editor plugin for creating grand strategy maps. It enables users to import an existing map image and easily create a region-based map from it suitable for making a grand strategy game.

Motivation

Creating region-based maps for grand strategy games is a time-consuming task. Existing workflows require developers to juggle multiple external tools and manually integrate the results into their game engine, with no native solution available for Godot.

Features

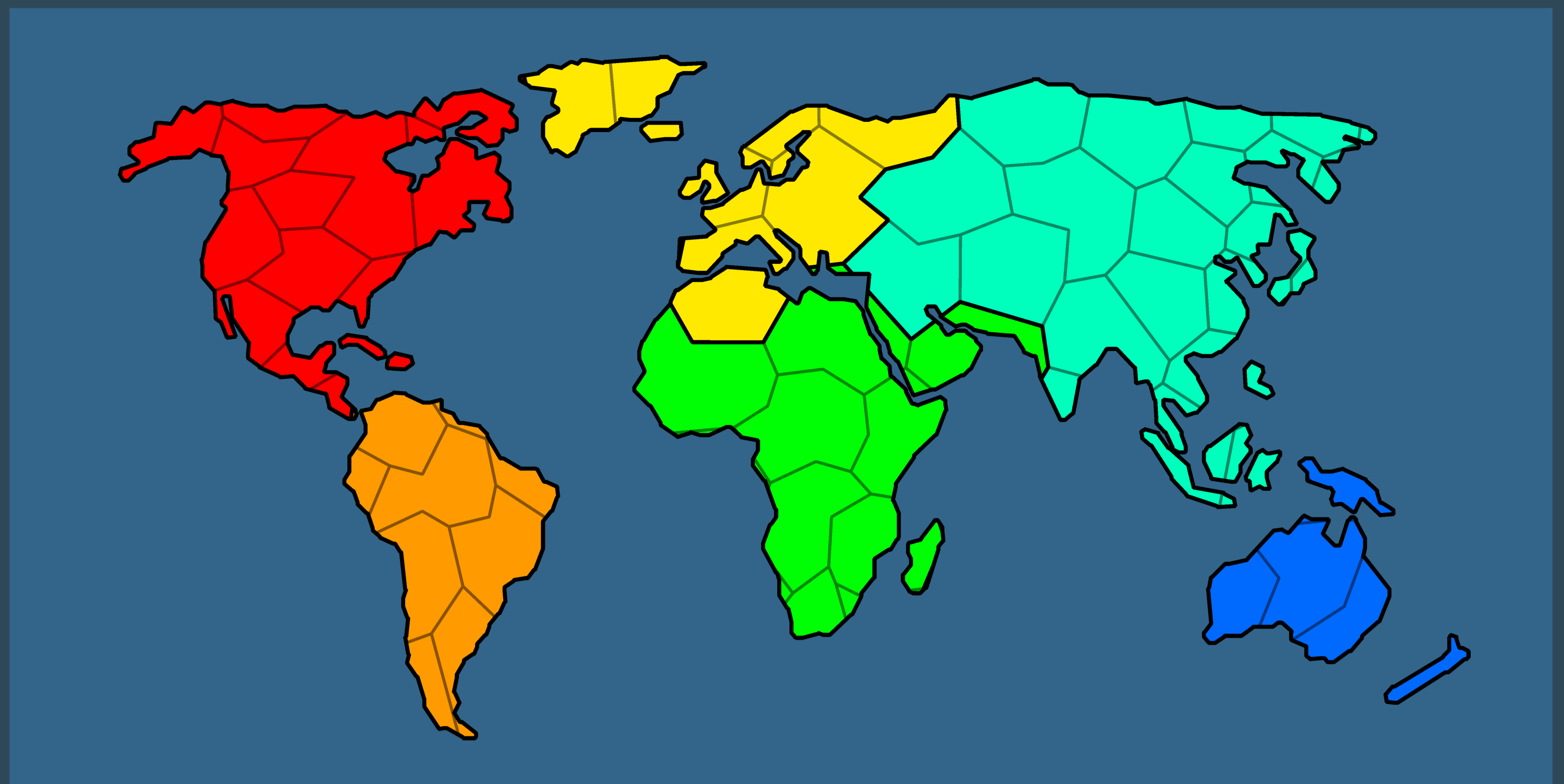
- Procedurally generate regions via Voronoi diagrams
- Multi-layer hierarchical subdivision with no layer limit
- Vertex-level boundary editing
- Custom metadata schemas per layer
- Runtime node with click signals and built-in pathfinding
- Fully integrated into the editor

Conclusion

Province Map Builder delivers a complete region-based map creation workflow inside the Godot Editor. Usability testing scored 82.5% on the UMUX scale. Future work includes improved region size consistency and expanded editing options.

Where to find it?

Province Map Builder is available on the Godot Asset Store (scan QR code). Project files, source code and the documentation is available on Gitlab.



1. Define your map sketch

2. Convert to polygons



3. Divide to regions



4. Divide into more regions



5. Define schema

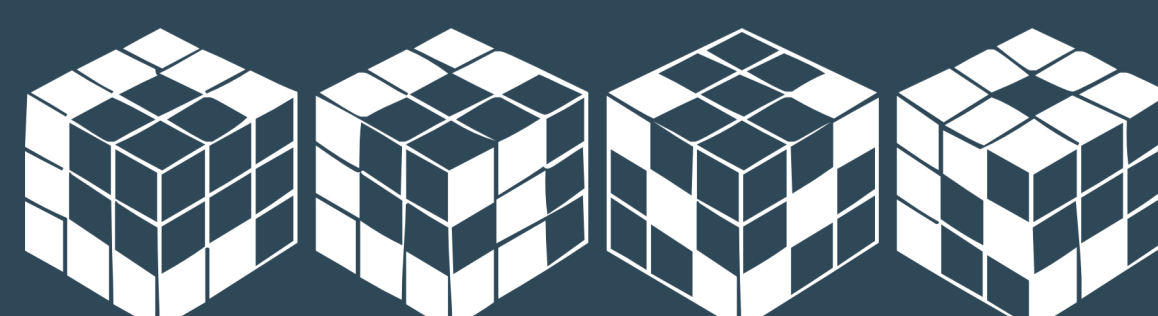
```
demo_schema.gd
class_name DemoSchema extends RegionDataSchema
enum Terrain { PLAINS, FOREST, MOUNTAIN }
@export var country: Country = null
@export var terrain: Terrain = Terrain.PLAINS
@export var population: int = 0
```

6. Render your map in-game



UNIVERSITY OF TARTU

Institute of Computer
Science



Oskar Unn

3rd year Bachelor's student in
Computer Science

Supervised by Jaanus Jaggo (MSc)