

XXL Editor Public Pre-alpha Preview 1

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Introduction

This is a first public preview release of the new XXL Editor.

Compared to the old editor written in Python, the new editor has been rewritten in C++ and redesigned to fix a lot of flaws and inconveniences the previous one had.

One example is that while in the old editor you could only open one sector at the same time, in the new editor all sectors are loaded at the same time. Not only this allows you to view and explore the entire level, it was also needed to perform certain modifications correctly.

Note that the new editor is still in "pre-alpha" and still in development. While it has new features, some features from the old editor are still missing. Only Asterix XXL 1 is supported in this version: I haven't started work on the other XXL games yet, and it will take a lot of time for them to be supported.

DISCLAIMER

As the editor is still in early development, expect a lot of bugs and missing features that I am probably aware of!

You might start making mods with this new editor, but please do not complain if you worked on a mod for hours and lost your progress due to a saving bug. Thus this editor is probably not ready for big mods, but small ones should be fine.

There is also a risk that levels edited with this version might become incompatible with future releases of the editor, hence why I don't recommend wasting your time on bigger mods.

Features:

- Render the level and sector's scene with configurable depth range.
- Render beacons (items, crates, boars), ground collision, lines, splines
- and enemy positions.
- Select scene objects, move/rotate/scale them, import/export their models
- using DFF files.
- Select beacons, move them, change number of crates in a stack.
- View, replace, insert and delete textures.
- View clone models and import/export them through DFF files.
- Select ground collision parts, modify their attributes (if you can bounce, swim or die on it, etc.), and export them as OBJ
- Play, import and export sounds
- View properties of squads and modify them (enemy count, type, position, ...)

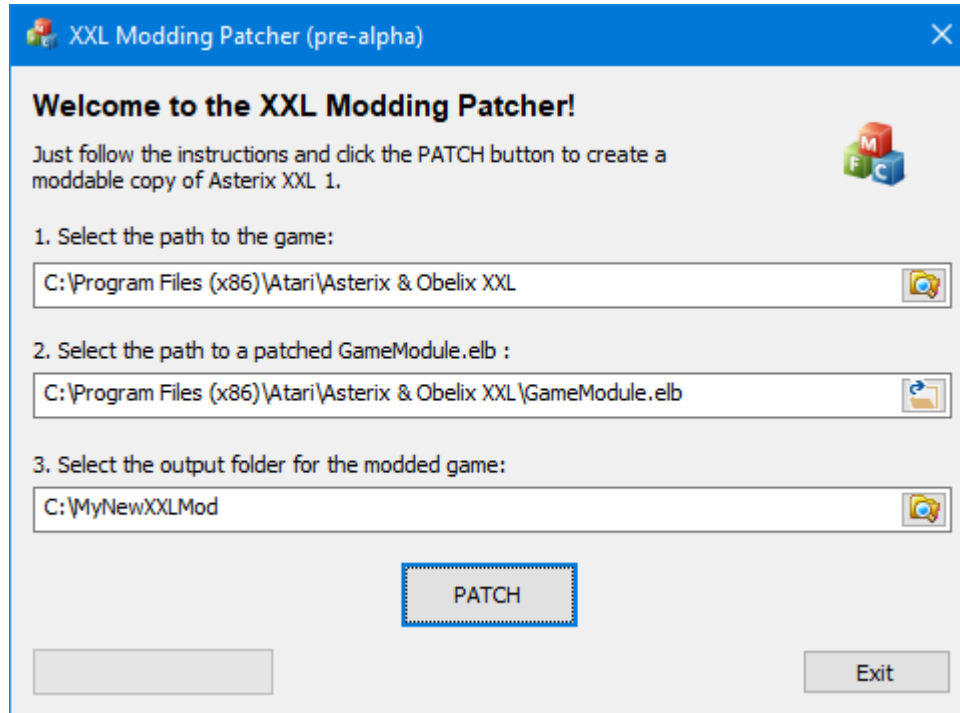
Requirements

You will first need to install the Visual C++ 2017 Redistributables x86 32-bit, which are available at the following link:

<https://support.microsoft.com/en-us/help/2977003/the-latest-supported-visual-c-downloads>

Setup Instructions

1. First you need to patch a copy of XXL1 with the "modding patch". This removes some part of remaining DRM to allow more modifications to the LVL files. This can be done using the program "XXL-Modding-Patcher.exe".



Just run it, indicate the folder of the game, the gamemodule (patched by ipatix) and a new folder, then click the PATCH button and it will make a copy of the game with the modding patch. In the new copy, you will see two gamemodules: one that runs the game in fullscreen (GameModule_MP.exe), and another one that runs the game in windowed mode (GameModule_MP_windowed.exe).

2. Go to the file xec-settings.ini and change the paths to the new modded game folder and the new GameModule. Example:

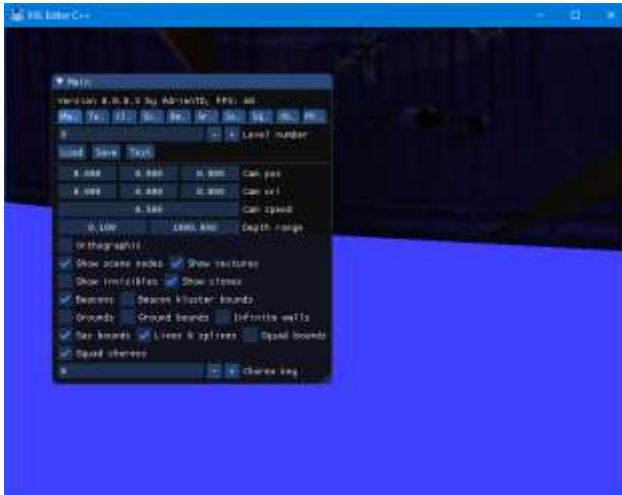
```
[XXL-Editor]
gamepath=C:\MyNewXXLMod
gamemodule=C:\MyNewXXLMod\GameModule_MP_windowed.exe
```

- "gamepath" is the folder of the modded game.
- "gamemodule" is the patched GameModule_MP.exe file.

3. Run XXL-Editor.exe
4. Profit!

Documentation

When you start the editor, the game ending cutscene is loaded, and you should see this:



- Use the **arrow keys** or **WASD** keys to **move** the camera.
- Hold the right mouse button or the **Numpad 0** key to **rotate** the camera.
- **Left-click** a scene object to **select** it.

When an object is selected, a “gizmo” (three colored arrows) will appear, like this:



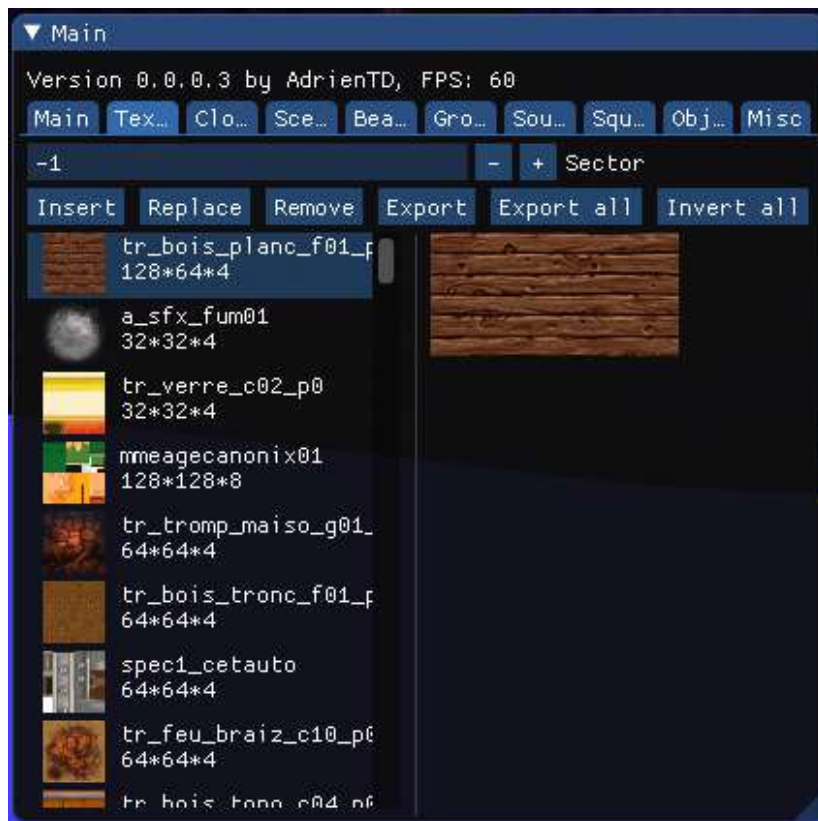
- **Click and drag** the arrows the **move** the selected object.
- Hold **CTRL** and **drag** to **rotate** the selected object.
- Hold **SHIFT** and **drag** to **scale** the selected object.

Main tab



- To load another level, type in the level number in “Level number” and click Load.
 - To save the level after doing some modifications, click “Save”
 - Click “Test” to start the game and launch the level automatically (be sure the gamemodule in the xec-settings.ini file is set correctly)
-
- “Cam pos/ori”: position and orientation of the camera respectively.
 - “Cam speed” : movement speed of the camera
 - “Depth range” : the near/far clipping distances
 - “Orthographic” : switch between perspective and orthographic view
 - “Show scene nodes” : Render the scene nodes (geometry)
 - “Show texture”: Enable/disable textures on the scene nodes
 - “Show invisibles”: Show scene nodes that start invisible ingame (like unspawned bonuses and enemies)
 - “Show clones” : Show scene node using cloned geometry.
 - “Beacons”: Show beacons (bonuses, crates, boars, respawning points, checkpoints, merchant positions)
 - “Beacon kluster bounds”: Show bounding boxes of the beacon clusters (which help the game determine if the beacons are in front of camera to load/unload them, for performance reason)
 - “Grounds”: Show ground and wall collision
 - “Ground bounds” Show bounding boxes for the collision
 - “Infinite walls” Show infinite walls in the collision (which can be huge and might make level exploring a bit more difficult, hence why they are disabled by default)
 - “Sas bounds” Show sector transition trigger bounding boxes
 - “Lines & splines” Show lines that define paths for e.g. cutscene camera, catapults, ...
 - “Squad bounds” Show bounding boxes for squads (group of enemies)
 - “Squad choreos” Show choreography position for the enemies in the squads
 - “Choreo key” Number of the squad choreography key to display

Texture tab



- In "Sector" type -1 to see the textures of the LVL (always loaded during the entire level) or any sector number for the STR files.
- Select a texture in the list at the left to make it appear at its native size at the right.
- Click "Insert" to insert a new texture at the end.
- Click "Replace" to replace the selected texture
- Click "Remove" to remove the selected texture
- Click "Export" to save the selected texture to a PNG file.
- Click "Export all" to save all textures in the list as PNG files to a folder.
- Click "Invert all" to invert the colors of all textures (just some funny feature).

Clones



- Click a clone in the list to display a preview of its model.
- By default, it is shown at the origin (0,0,0) of the 3D scene, but you can move the position of the preview in "Preview pos", or by clicking "Move preview to front" to bring the model in front of the camera.
- Click "Import DFF" to replace the selected clone model with another from a DFF file.
- Click "Export DFF" to save the selected clone's model to a DFF file.

Scene graph



This shows the scene graph of the level and sectors, and info for the selected scene node.

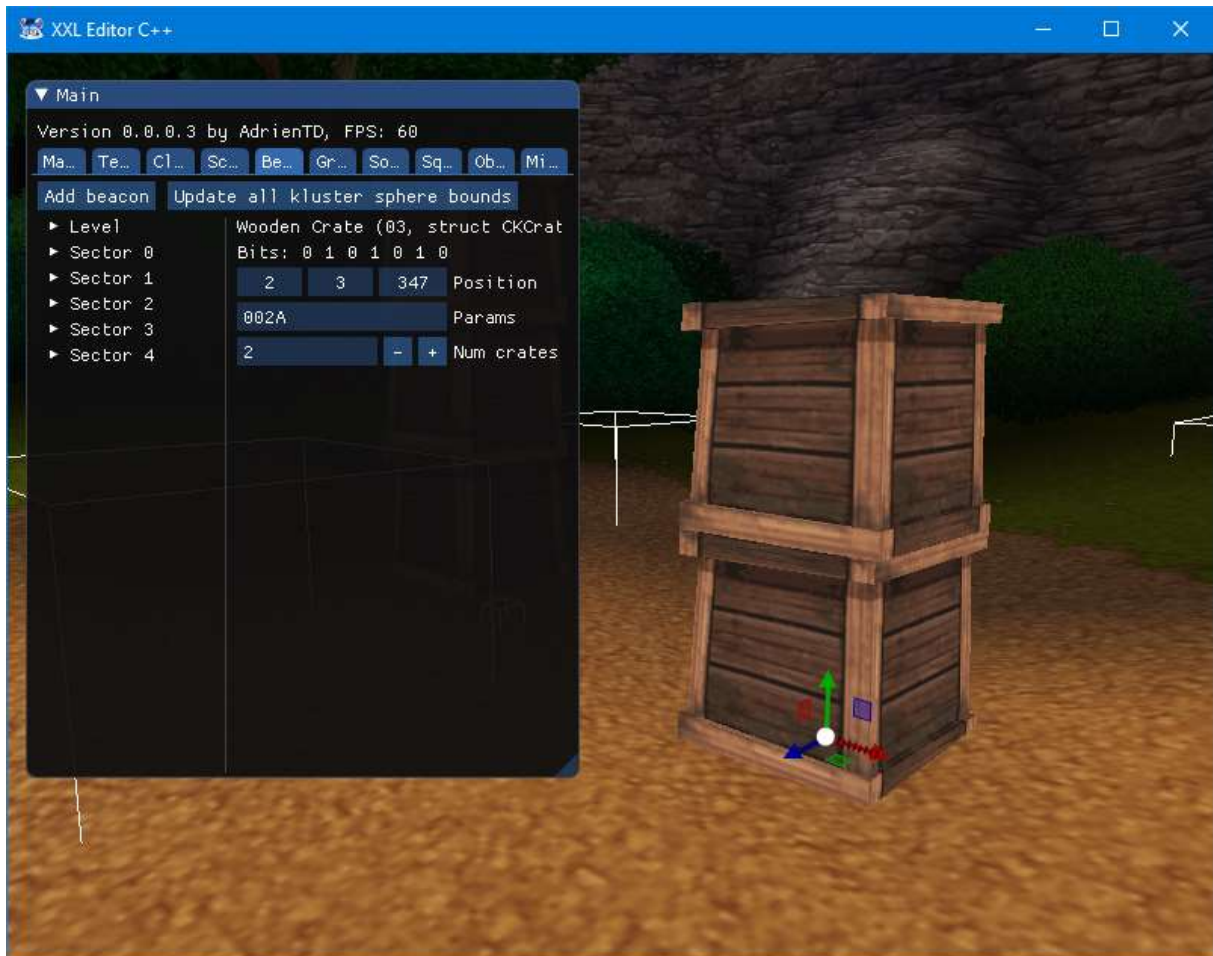
When an object is selected (by clicking it in the 3D view or in the scene tree at the left of the window), you will see at the right of the window:

- “Position” is the current position of the node (relative to its parent)
- Click “Place camera there” to place the camera near the scene node.
- Click “Import geometry from DFF” to replace the model of the node by another one from a DFF file.
- Click “Export geometry to DFF” to save the model to a DFF file.

Tip: If you want to import/export the geometry of the level/sector, select the CSGSectorRoot from the tree and click Import/Export DFF. (You cannot select them from the 3D view.)

About animated model import: for this I might write a separate tutorial, as it might be very difficult and involves other tools than the editor.

Beacons



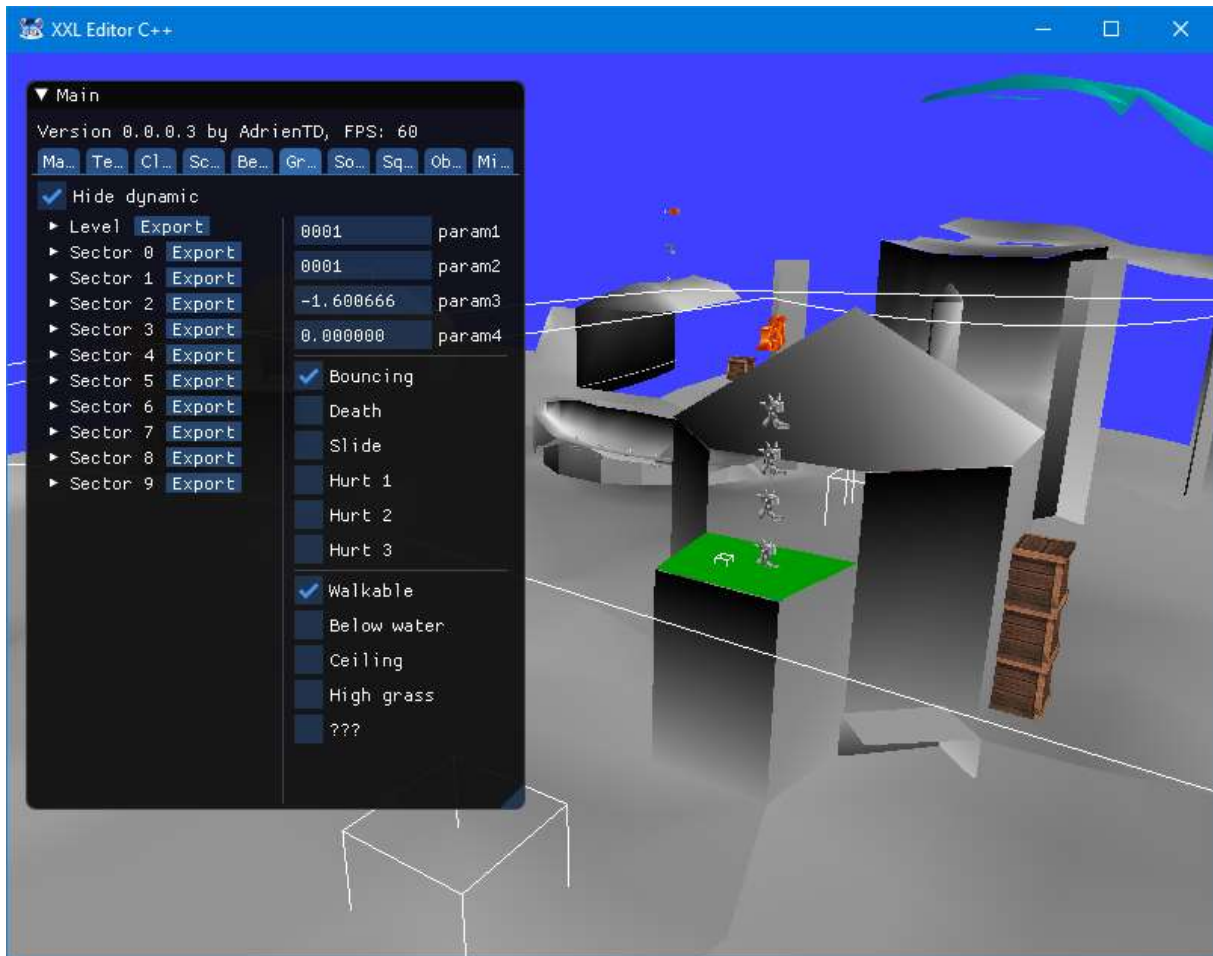
Lists all beacons (bonuses, crates, ...) at the left and lets you edit the selected beacon's attributes at the right.

- "Position" is the current position of the crates (multiplied by 10)
- "Params" is a 16-bit integer containing properties for the beacon.
- "Num crates" is the number of crates of a stack of crate, same as the first 3 bits of the Params.

Click "Add beacon" to insert a new beacon in front of the camera. It will be inside its own cluster in the LVL.

"Update cluster bounds" will update the bounding boxes of the beacon clusters. Normally you don't have to worry about this as the editor will update the bounding boxes automatically when you move the beacons.

Grounds

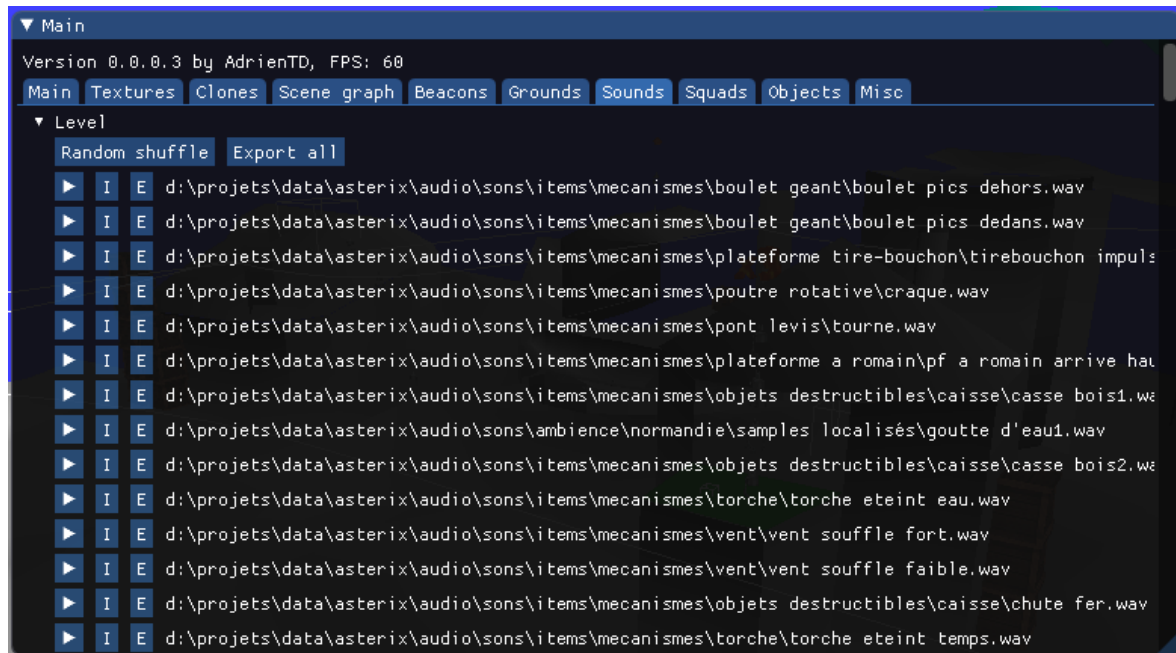


Lets you view properties of the selected collision ground, that you can select either from the tree at the left, or from the 3D view (if Grounds in the Main tab is checked). The currently selected ground is marked green in the 3D view.

At the right you can see the attributes of the selected ground. You can edit the params from the integer box, or from the checkboxes which explain what they do.

The Export button will export all the grounds from the specific sector to an OBJ file (grounds + walls).
No import yet 😞 (coming soon ™)

Sounds



Lets you play, import and export sound from the level and all sectors.

For the level and every sector:

- “Random shuffle” will shuffle all the sounds (if you want to randomize sounds for some fun)
- “Export all” will export all the sounds to a folder in WAV format

For every sound:

- Click the triangle to play the sound
- Click “I” to import a WAV file and replace the sound with.
- Click “E” to export the sound to a WAV file.

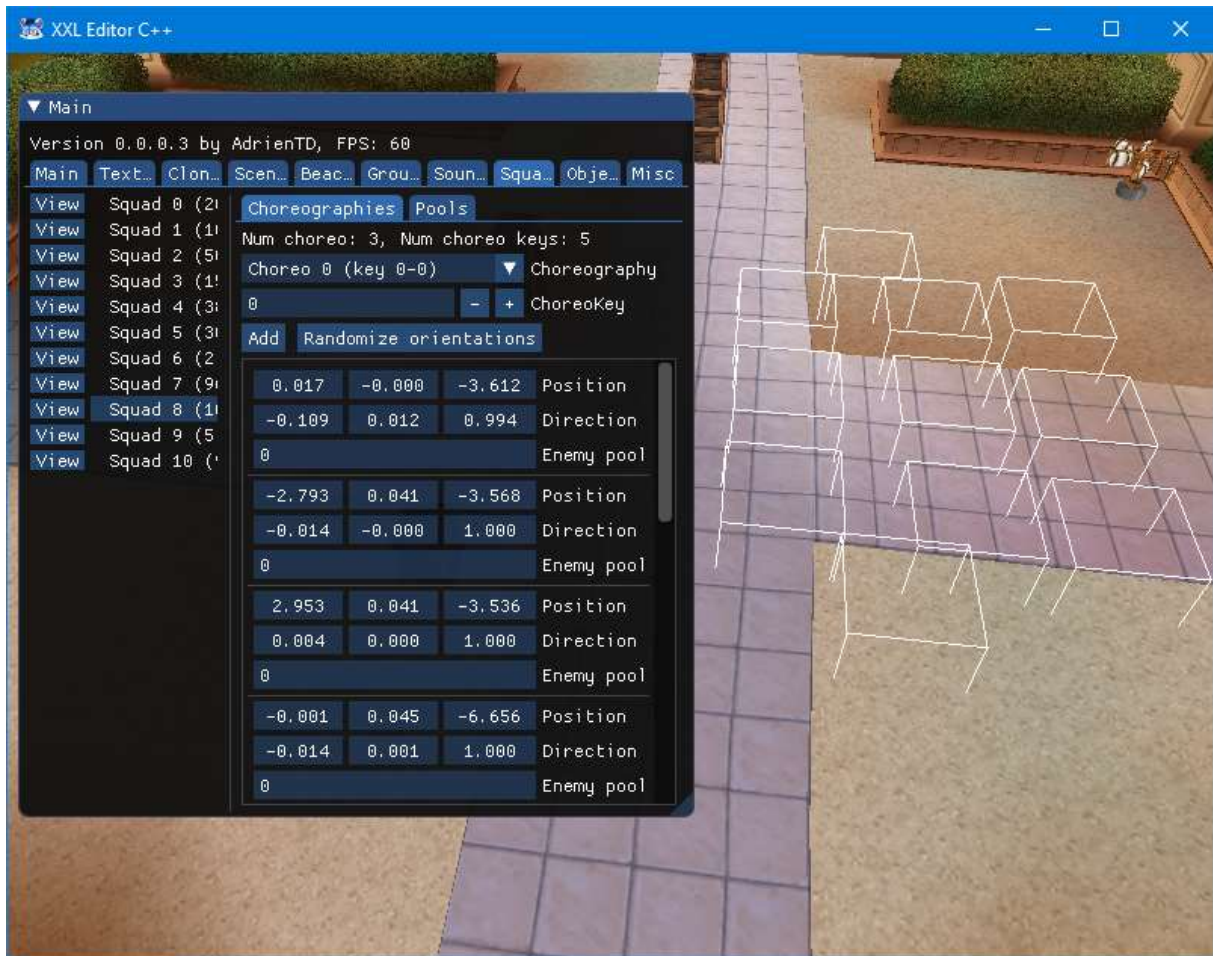
When importing a sound, the WAV needs to be uncompressed in one of the following formats:

- Unsigned 8-bit PCM
- Signed 16-bit PCM
- IEEE-754 floats

It also needs to be in mono (not stereo). If that’s not the case, the editor will only import the first channel of the sound.

All sounds will be converted to Signed 16-bit PCM when imported (as that’s the format of all the sounds used in the game).

Squads

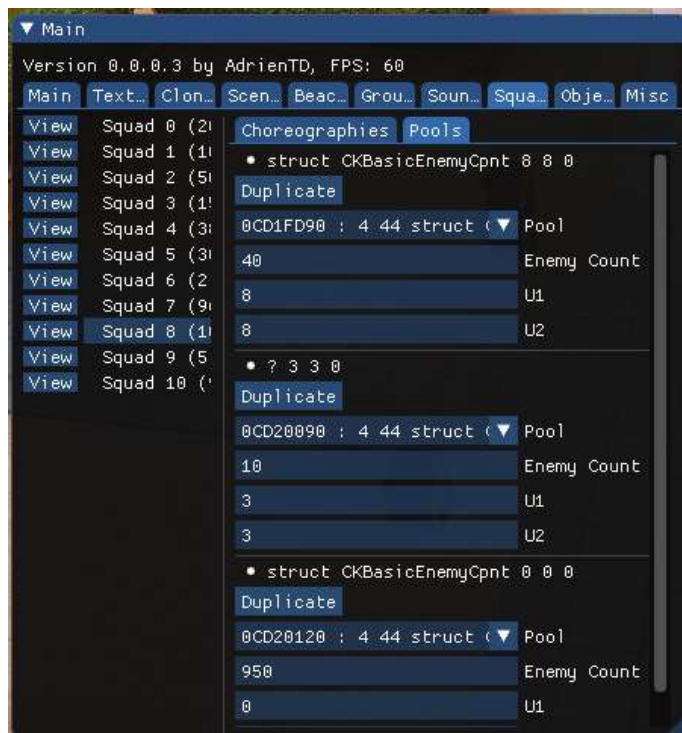


Allows you to edit the Roman fights.

Select a squad at the left. The View button will teleport the camera near the location of the specific squad.

At the right there are two tabs:

- In **Choreographies** you can change the position of the enemies in the fight.
 - Every squad can have multiple choreographies, which means the position of the enemies can change depending on the phase of the fight.
 - Every choreography also has multiple keys, which allows the positions to be “animated”. This is when romans change their positions regularly during the same phase.
 - You can select the key to view and edit in the “Choreography” combo box and “ChoreoKey” text box.
 - The “Add” button will add a new enemy position in the current key.
 - Every position also has a direction (orientation) and an enemy pool number, which indicates the type of Roman that should go to this spot. The number is an index of a pool in the Pools tab, starting from 0. If it is -1, then any kind of Roman can go there.



- In **Pools** you can indicate what romans are taken for this fight.
 - The Duplicate button will make a copy of the pool using the same component.
 - You can select from which pool to take the enemy from in "Pool".
 - Enemy count is the number of enemies to fight from this pool.
 - U1 and U2 is the number of enemies from this pool that can appear on screen at the same time.

Thanks

Special thanks to everyone who tested private releases of the editor and gave feedback 😊

Libraries used:

- Dear ImGui
- ImGuiZmo
- inih
- SDL 2
- stb_image
- stb_image_write