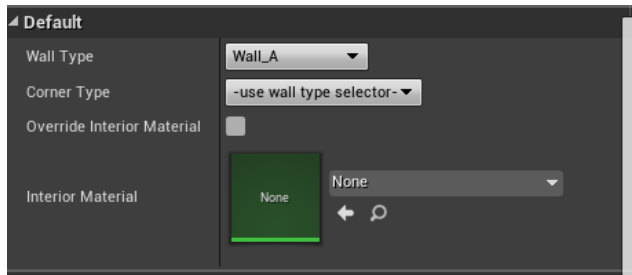# Modular Prison Pack

For Unreal Engine 4

Assembly Info

Use Grid snap size 50 when working with the set. *(Only a handful of scenarios will require a snap setting of 10.)*

Constructor blueprints are available, take advantage of them, and only use the static meshes directly if they're not included in any BPs.
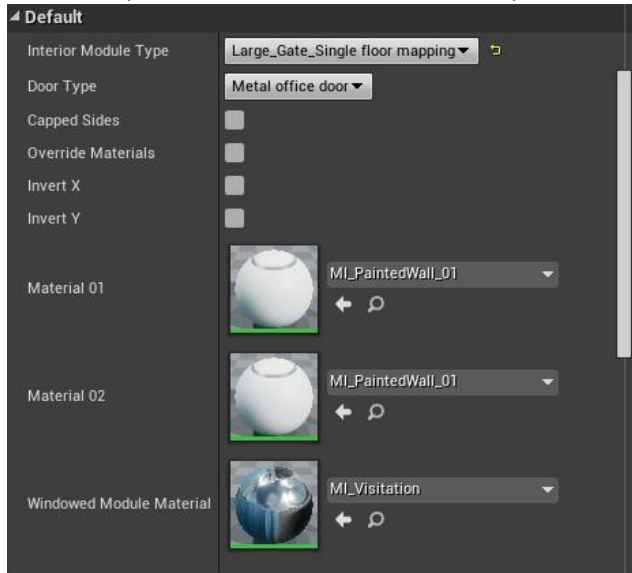
Main walls:

Main walls come with their interior counterparts merged. Any type can be chosen using the top dropdown menu. You also have the option to override the default material and assign any others.

Interior walls:

This blueprint serves all needs for any interior separator walls.

First dropdown lets you select the wall type. If it's a door module (of any kind), a functional door will be assigned considering the second dropdown selection.

Capped sides: Closes the selected wall mesh on the side (corners).

Override materials: Enabled, you can independently assign different materials to either sides of the selected module.

Invert X and Y: Inverts the module (useful to compensate for offsets).

Windowed Module Material: Overrides the material used for all modules that include glass window frames. *(Two materials are provided, blue and white, but you can open the material instance and choose any color you prefer.)*
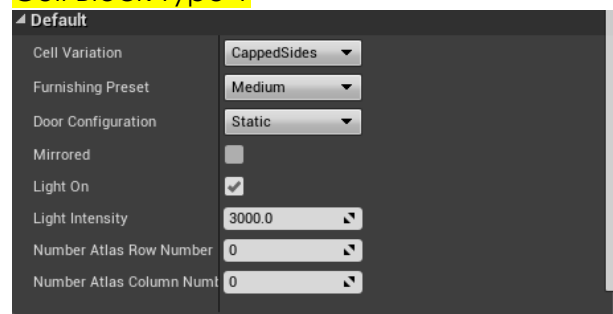
Modular guard booth system:
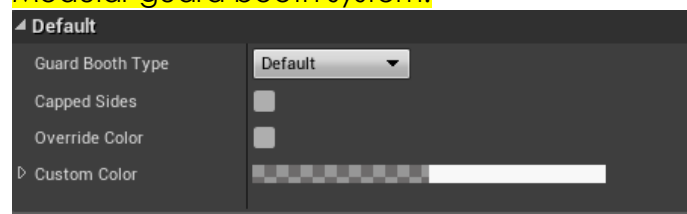
Lets you quickly assemble steel enforced guard booths.

The override color switch enables you to choose any painted metal color you prefer

Hint: Once the entire booth has been built, select all of them, group them (Ctrl+G), and then modify color.

Cell Block Type 1

Cell Variation: Capped or Uncapped versions. Use uncapped for in-between cellblocks to reduce unnecessary geometry being present in your map.

Furnishing Preset: Choose Low, Medium, High, or Empty to quickly get different cell furnishing. (You always have the option to select 'Empty' and furnish it individually as needed using the static props.)

Door Configuration: Static bakes the cell door in, Interactive makes it openable during gameplay.

Light On: Enables baked-in ceiling light (Material and point light components alike.)

Last two integers: Cell numbers use a large decal atlas, sliced up equally to rows and columns. This entry shifts the UV of the decal mesh to draw the required text overlay.

*(Row 3 Column 1 will yield cell number 3.)*
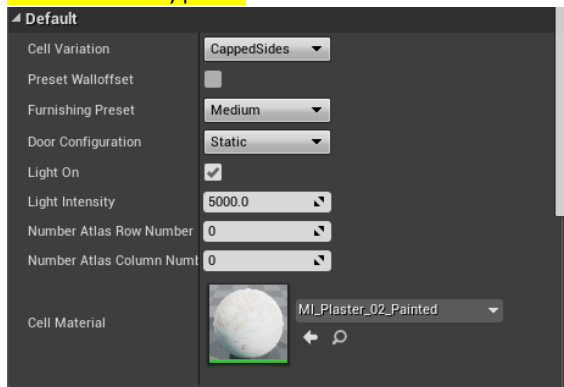
Same as CellBlock 1 blueprint, except you have a 'wall offset' switch (this blueprint doesn't include the backside of the cell, so you'll use a regular wall behind it.), to compensate for wall offset if necessary.
You also have a Cell Material variable exposed, so you can select any materials for the cellblock.

The other cell block types work the same way.

Floors/ceilings
This blueprint works like the interior walls BP, lets you chose different kinds of configurations for floors, ceilings, capped, uncapped variants, with lights or without.
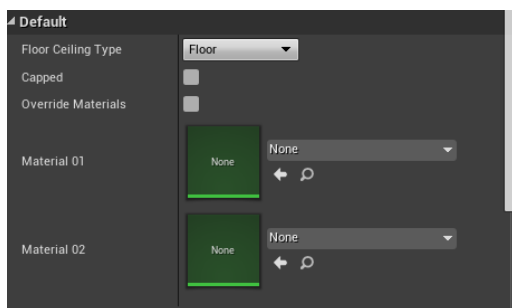
Splines
Feed the mesh variable with a static mesh to create splines. (Demo map uses it for sidewalks, but you can use them for air duct pipes, too.)

There are lots of other blueprints in the package (both construction and with behavior), but they are simpler than the above mentioned, and also self-explanatory.

Game Modes and required settings

3rd Person: Works out of the box.
VR: Works out of the box.
1st Person: Decrease the FirstPersonCharacter Capsule Radius slightly (30-40 is good.)

Getting quick into VR
A few steps are required to get the best experience in VR.
1) Open M_Translucent material, and set it to 'Volumetric Non-directional'
2) Open M_Masked master also, and disable 'Dither opacity'.
3) Open M_Ground master, and remove Parallax Occlusion Mapping input nodes completely (Only keep UV tiling and ignore POM.)
4) Open MI_Brick instance and disable POM and PDO.
5) Drop in your VR MotionController pawn and hit play. (Hint: Depending on hardware, you might want to increase r.ScreenPercentage to 180-200 in the console.)

Performance and lighting

The demo map is huge (~7.6 acres, ~30.000 square meters), please be patient especially after download, to have all shaders compiled.

The demo level is just one that I created for demonstration, however, if you decide to use it in your project with modifications, keep in mind that the production quality light build time of the map is ~25+ hours on a faster CPU.

If you're targeting lower-end hardware or need an extra performance margin for characters and more, you'll want to consider building a smaller map or streaming the level.

If you have any questions, concerns, ideas, suggestions, don't hesitate to join the discussion board on my Discord channel (see product page), or send me an e-mail directly.

The demo map featured Nathan Edward More Penitentiary is entirely a work of fiction and can not be linked to any real-world or other fictive prison facilities. N.E.M.P.'s layout and security measures do not resemble those of real world penitentiaries and are created for entertainment purposes only, constructed in a way that they can entertain gamers.