Welcome!

Thanks for checking out Total Greybox. A rapid level planning, place-holding and prototyping environment kit.

Introduction to size and scale in Total Greybox.

Total Greybox has been built with real world scale as the foundation. Doors, walkways and other props have been built to suit international averages for average people. As an example, the single door asset is 1.2 meters wide x 2.2 meters tall to suit a character height of 180cm. All assets are pre configured with the correct colliders. This combined with the realistic scale makes it that little bit easier to implement physics within your designs.

How and why.

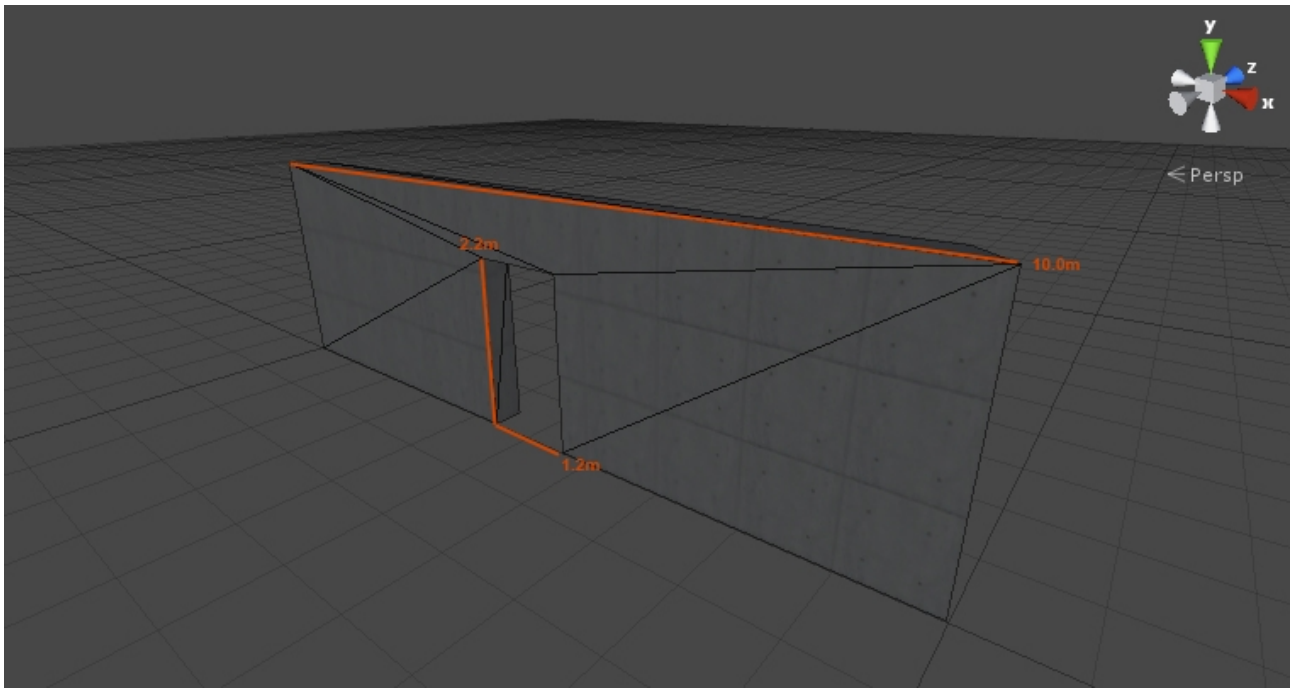
The Unity grid has a minimum spacing of 1m x 1m. Many of the elements within Total Greybox will snap perfectly to this grid, making placement fast and easy. Some elements are smaller than the 1m x 1m resolution meaning that they will only snap to one corner of the 1m x 1m grid. The reason for some elements being smaller than the minimum grid resolution is again, the preservation of scale.

As an example, the single door frame does not snap to the grid on all sides due to it's measurements (1.2 x 2.2m) However, the frame will vertex snap perfectly to a door opening in any wall which does snap to the grid. It's not feasable to maintain cubic meter volumes throughout the kit design as this will lead to unattractive and unrealistic artifacts and restrictions such as wall thickness minimums and portal sizes too small / large.

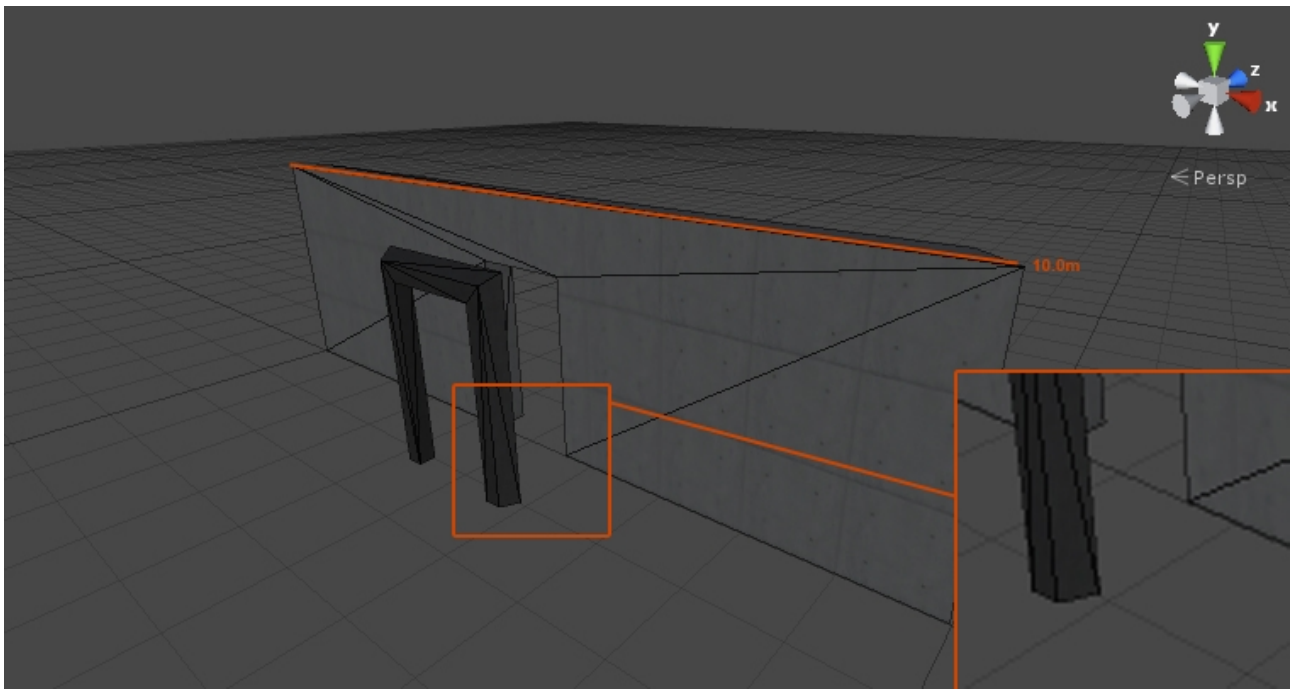
Examples

Lets take a look at an example.

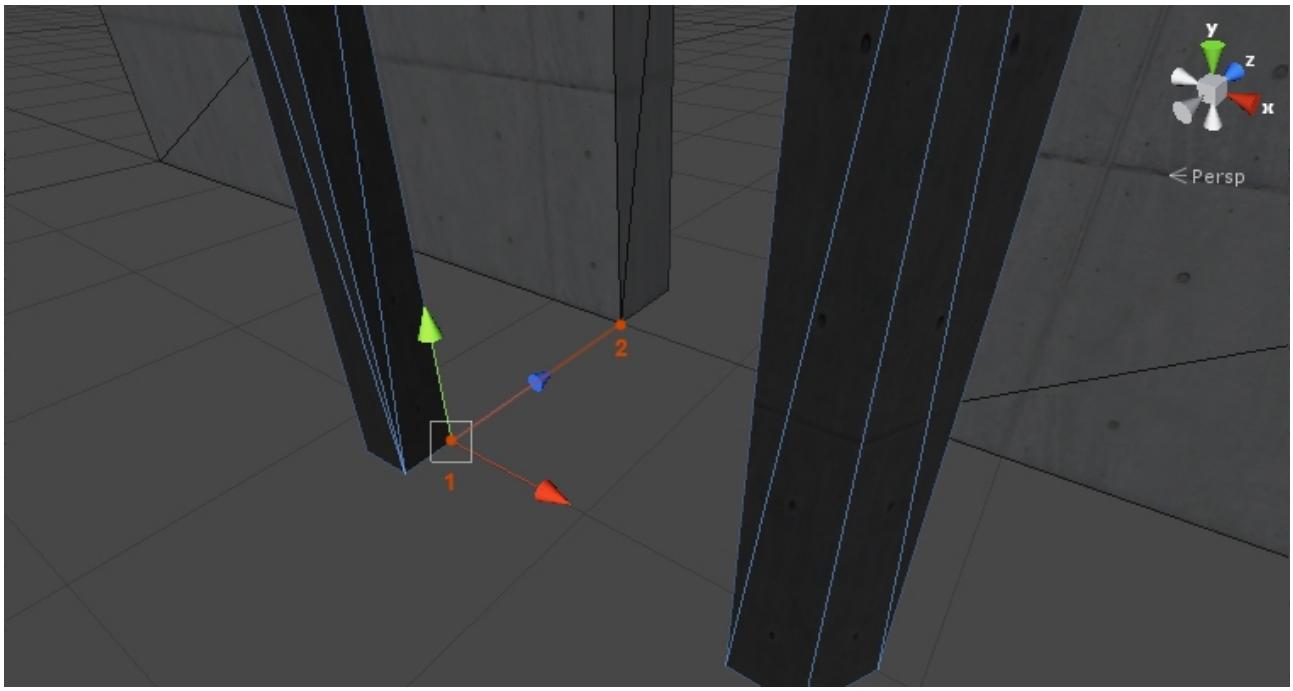
Here we have a wall section for a mid sized room. You can see it snaps to the grid perfectly. The door opening does not, due to it's fractional dimensions.



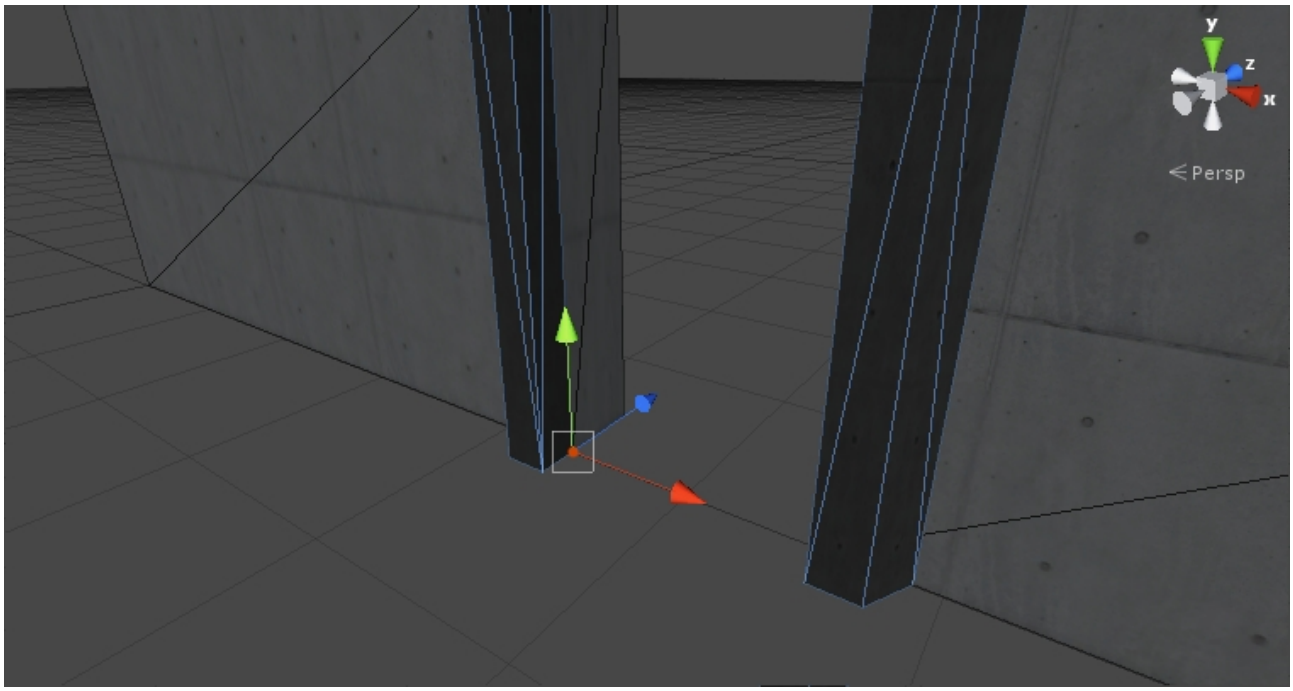
Here's the corresponding door frame. Notice how it doesn't snap fully to the grid.



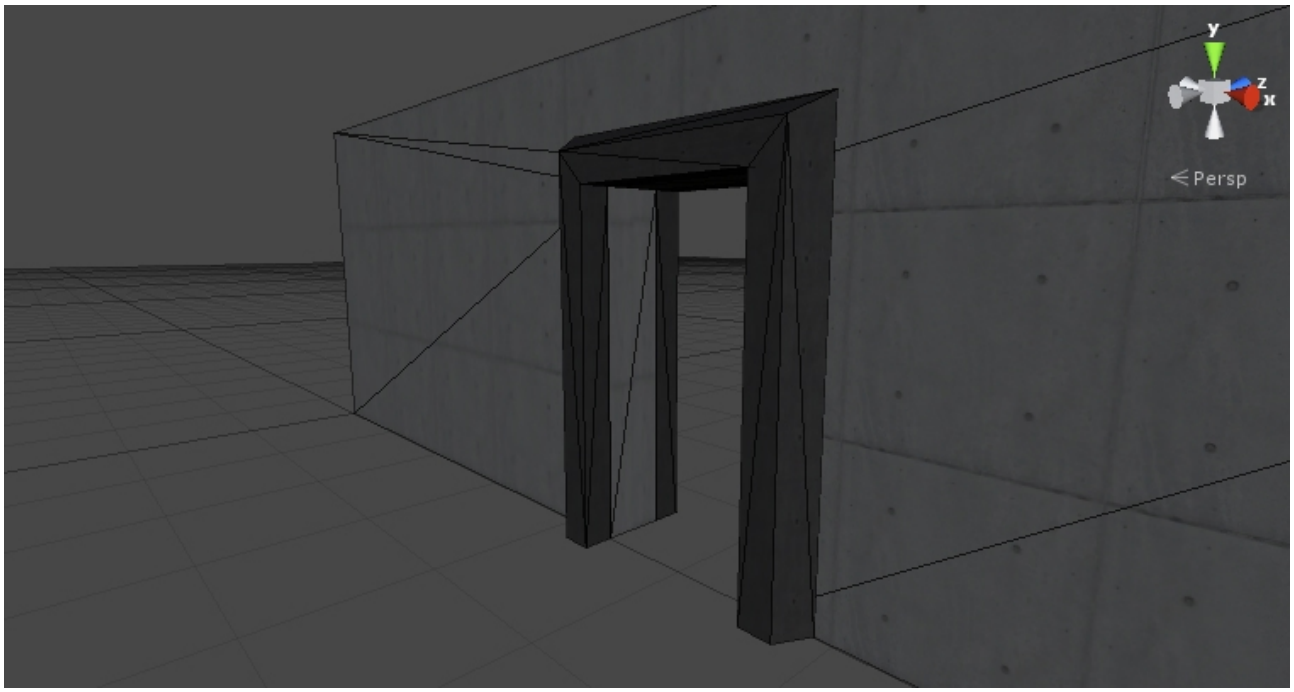
We can perfectly snap the door frame to the wall by using vertex snap. Select the door frame and select the move tool within Unity. Hold down the 'V' key to snap to a vertex on the door frame.



Move the door frame towards the wall and the door frame will automatically snap to the nearest vertex. Snap the frame to a suitable vertex on the wall.



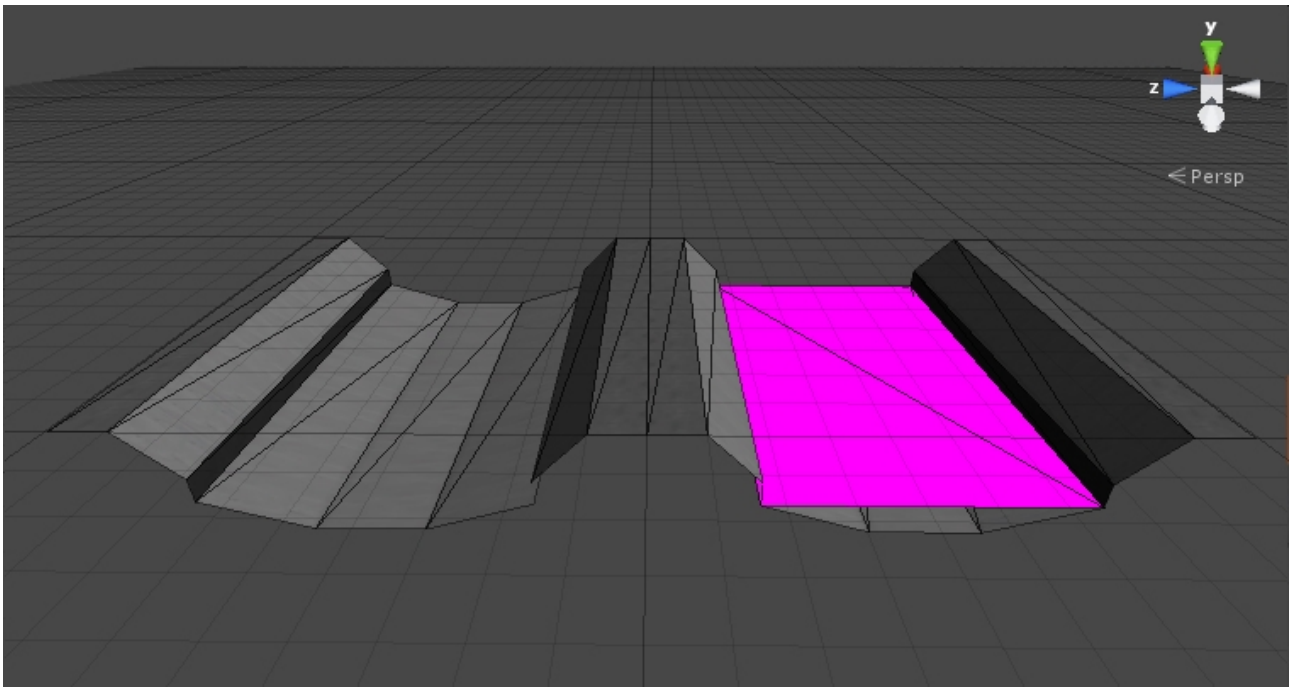
Here you can see that I've duplicated the door frame, rotated it 180 and then snapped it to the other side of the wall. Feel free to experiment with block placement.



Notes and specifics.

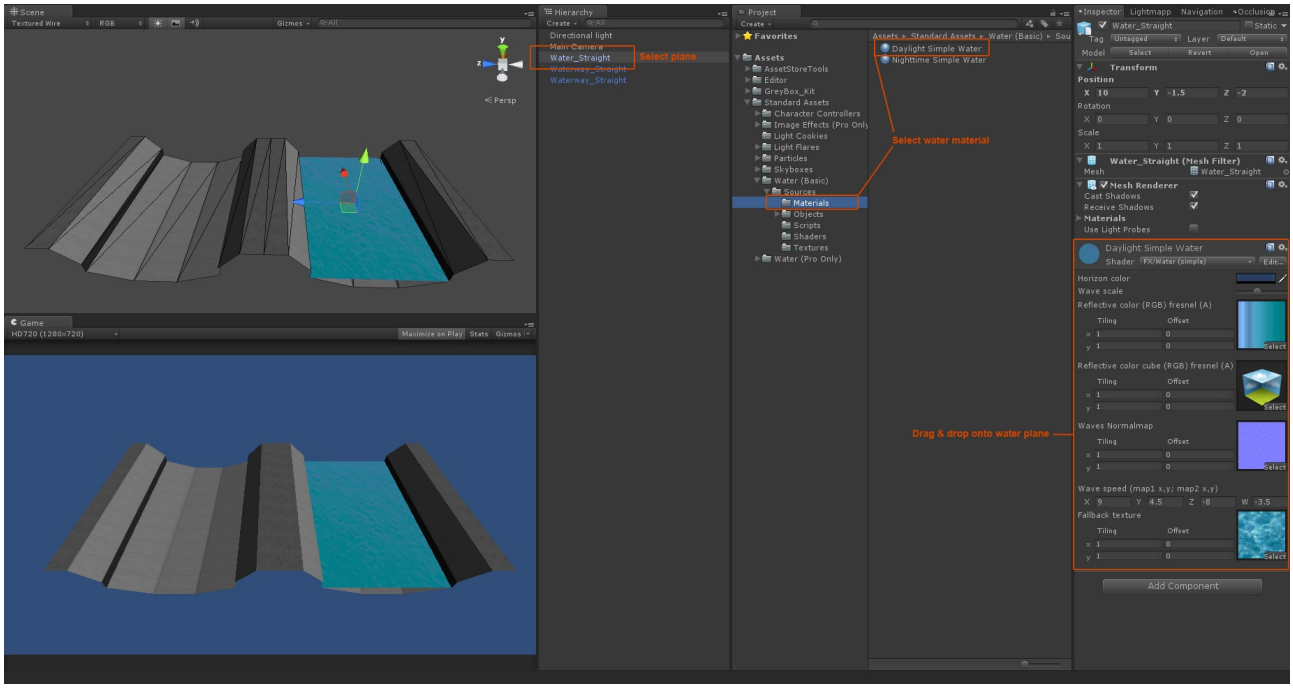
There are simple plains included in the waterway kit that act as water surface pieces for the waterways. They don't have a material included by default. This is intentional and meant to avoid including standard assets in the Greybox package.

The easiest way to apply a water surface is to vertex snap a suitable water plane to a waterway piece.



Then import Standard Assets – Water Basic and/or Water Pro. Drag and drop a suitable water material onto the pink water plain for instant water.. You can repeat the process for the corner water

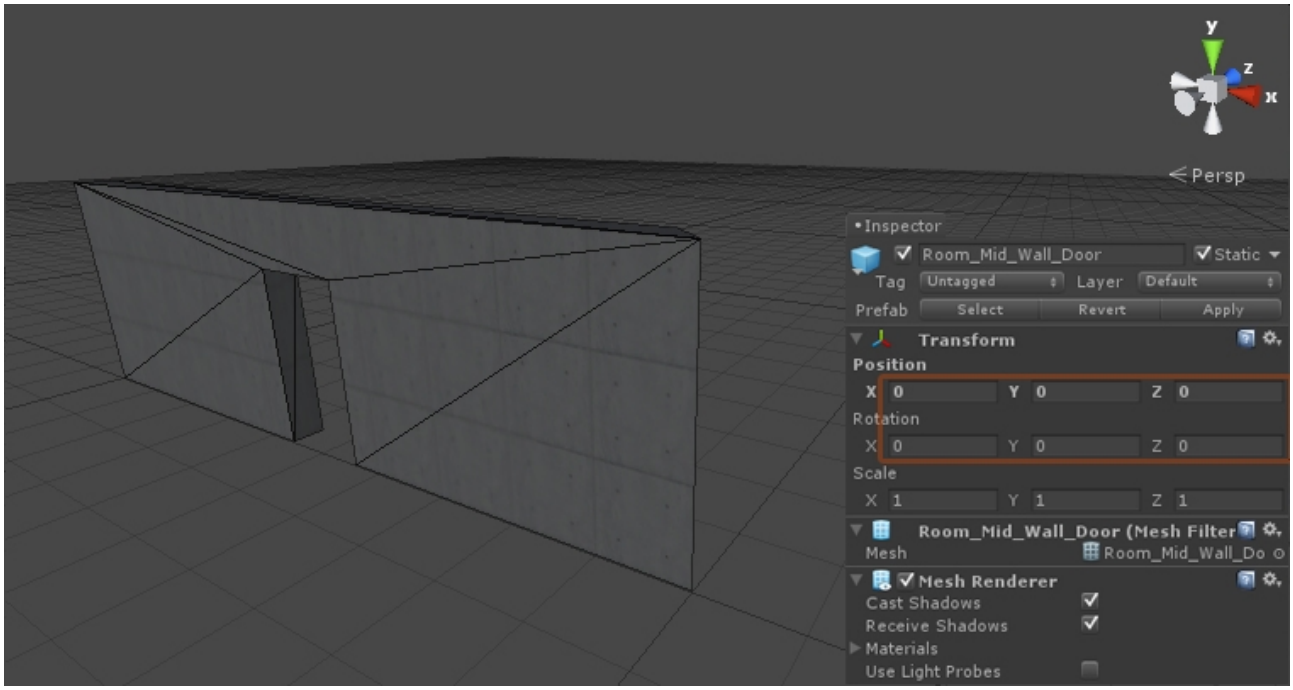
surface plane.



Tips!

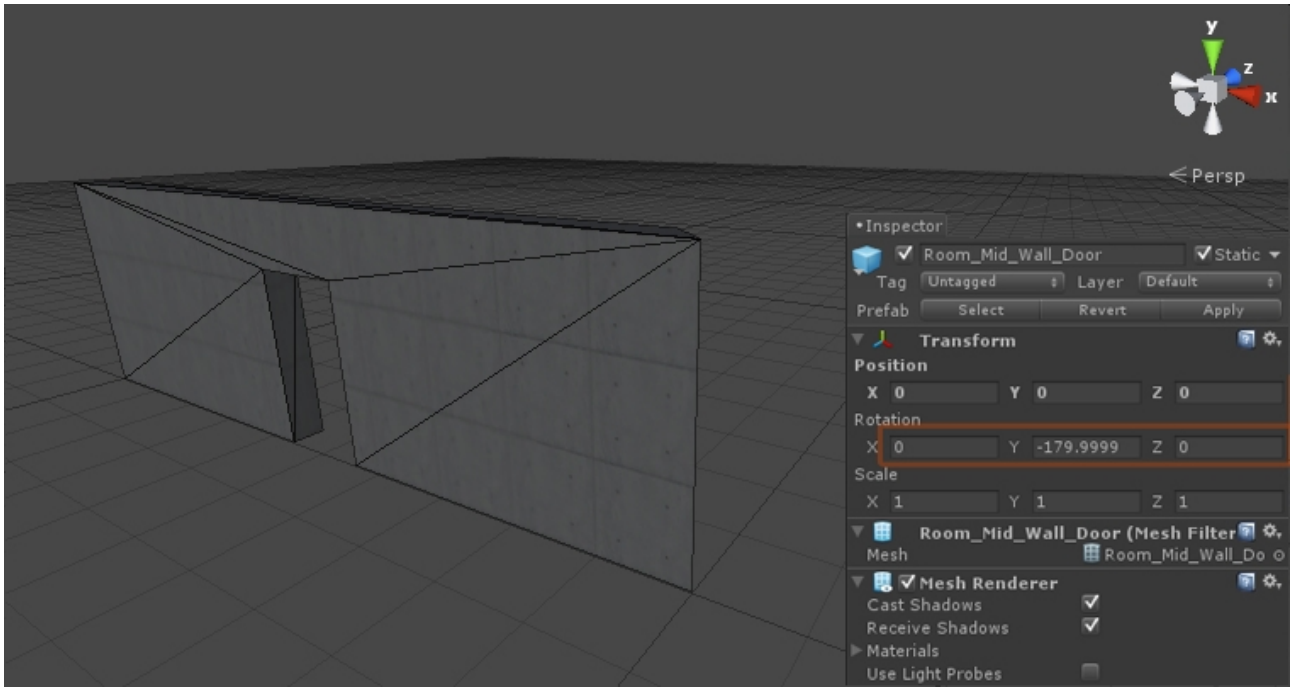
1.

When dragging kit pieces into the scene, be sure to zero out the position values before moving them.

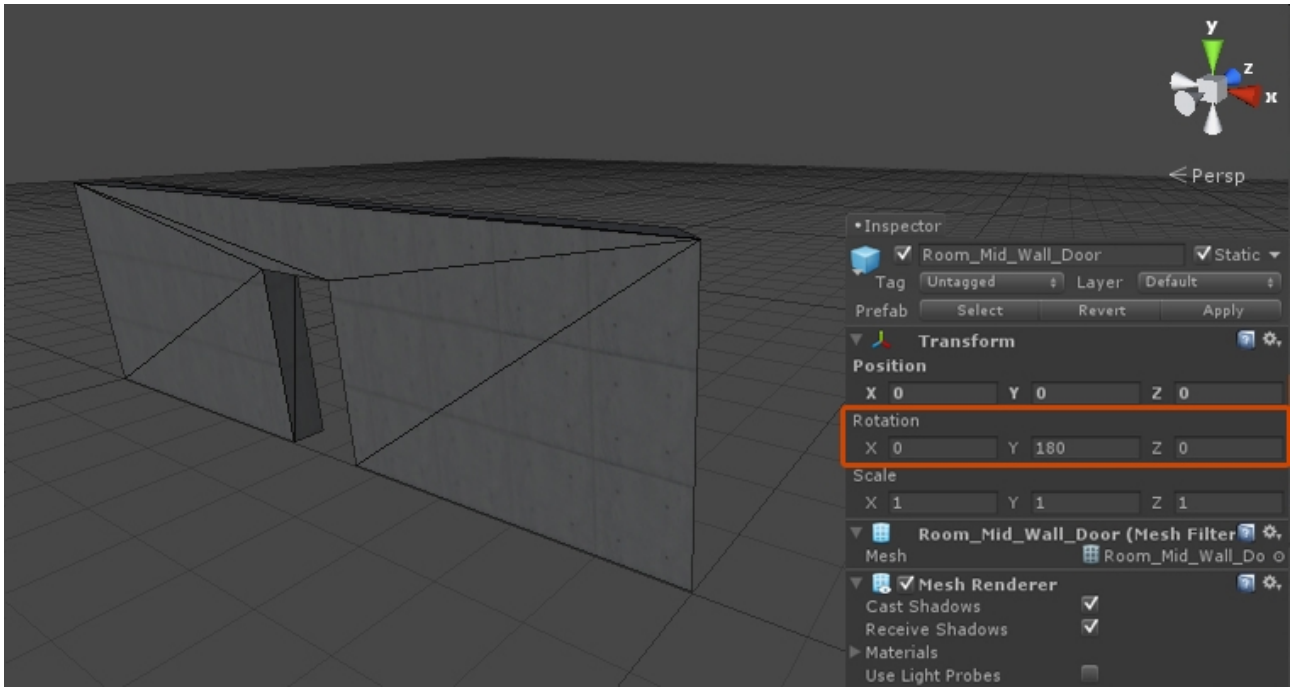


If you rotate kit pieces by holding the 'control' key and using snap rotation, small inaccuracies can be introduced into the kit snapping due to the rotations not being whole numbers.

Here's an example. The wall piece in the screen shot has been rotated by using angle snap (crtl + rotate tool) Notice how the rotations aren't whole numbers.

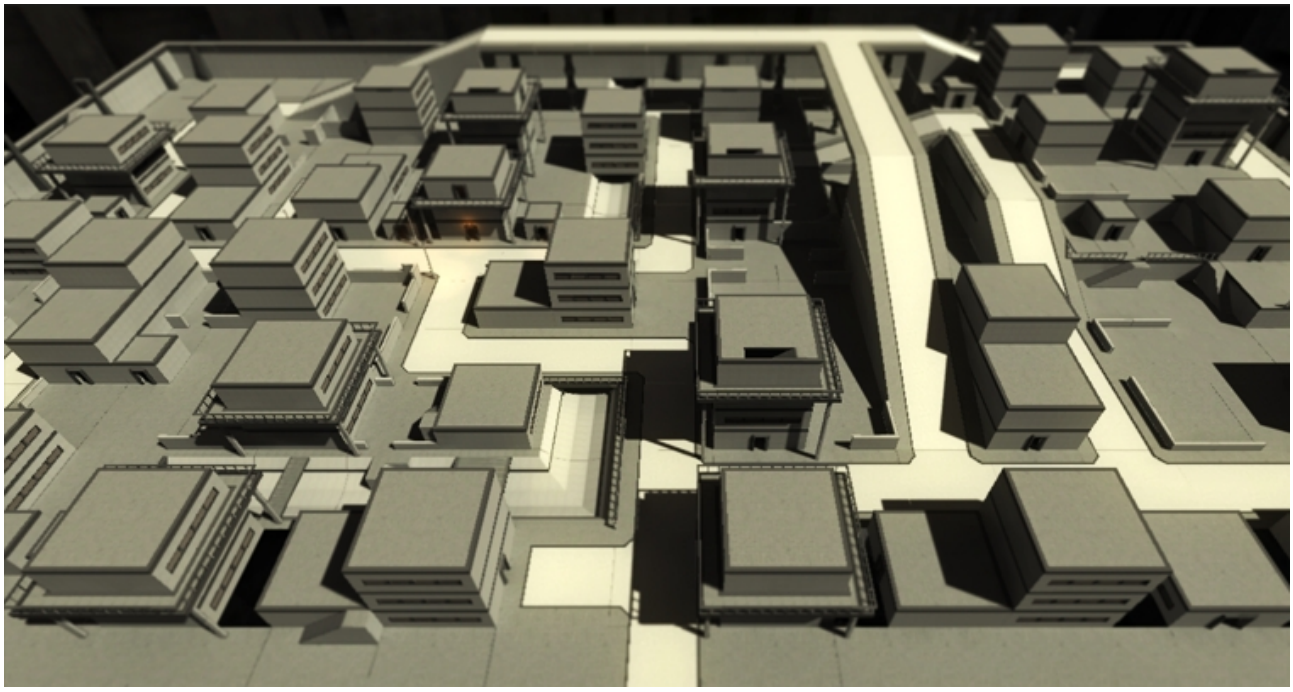


This isn't a big problem for small scenes but can compound through kit piece duplication in large scenes, leading to (barely) noticeable gaps in the kit. It's good practice to make sure the rotation values are whole numbers before duplicating pieces, particularly if you're snapping kit together by vertex rather than grid.



2.

Total Greybox includes a lot of group prefabs. These have been assembled to assist in quickly placing a basic level. Group prefabs include things like multi-floor building shells, large wall sections, road sections and junctions etc.



Building with group prefabs can be a very fast way to prototype a level. Adding your own custom group prefabs is an easy way to expand the kit with pieces that suit your project type.

If you have any comments or feedback then please send an email to contact@darkpoolsoftware.com