

This Guide will give tips and help on making your outdoor levels. This map will be created with the default *Amensia: The Dark Descent* models including those from the *Justine DLC*.

I will not cover Skyboxes. If you need help on making or finding one, please refer to this other [tutorial](#).

Please download the tutorial map before reading the rest of this. www.mediafire.com/

The two most important things you need for this tutorial are **Compound Objects (B)** and **Duplicating Objects (Ctrl D)**.

For those who don't know...

1. When selecting two or more objects. You can press **B** to create a **Compound Object**. This makes it extremely useful for duplicating multiple objects at once and making it much easier to Move, Rotate and Scale them.
2. While selecting a object or more, you can **Ctrl D** to make a exact copy of it on top of the original object you copied from. They will keep the retain the original's properties!

Lets start off with a “cellarbase_floor_rough.mat” plane. Dimensions of the plane are X-28, Y-1, Z-11.5. While the Tile Amount is 0.2 by 1 by 0.2, Texture Angle is set to 30.



Go to **Static_Objects > Debris > Rock**. We'll be using the **brown rocks** to make up a large portion of the walls and cliffs..

Put down the rocks to form a rough wall like this...



1. Put some vague details on the front and back, your going to Copying Pasta this thing all the over place. So your going to want to rotate and scale it for each Copy individually so its not been obviously Copy Pastad.
2. When I say vague, I mean vague. Don't put anything that looks unique, like a arm sticking out or something stupid like that. You want this to look detailed enough because when you scale it, the texture will be stretched alot. So having multiple rocks really close together will look better rather than just one rock.

Select each rock and press B to make a Compound Object. They should all change into a Red Outline. Now, whenever you move it, rotate it or proportionally scale it. (Thats if you do the X, Y and Z at the same time. If you try to stretch it on only one Axis at a time, it will Scale it not the way you would expect. Try it out for yourself if you have never done it before.)

Note1: When you think you have selected each object. Do a quick *Delete & Undo*, check if any remaining rocks are their. If their are, you have either forgotten one... Or you can read **Note2** ...

Note2: This is something that happens to me alot. When I Ctrl D a object, I sometimes get multiple duplications. If you look at the photo below, I have made the rocks into a Compound Object and moved them over. But their is still a rock leftover, this is not one I had forgotten to include in the Compound Object! This is one that I had accidently duplicated twice. So note to yourself, that if you notice objects that can be affected by physics (Typically most entities, but defiently not

static_objects) are exploding on map start. Check to see if either their *StaticPhysics* checkbox is unchecked or if you have *duplications in the same spot*.



Note3: When you have a *Compound Object*. You can *split the Compound Object into its individual parts* by pressing **B** again while it is selected. You can also *merge Compound Objects with Objects that are not in a Compound Object* by selecting both of them and pressing **B** again. It seems you cannot merge 2 Compound Objects together though.

Lets first move this Compound Object to the side where it won't be touched. This will be a original set piece for our map. We will be making more Compound Object set pieces later. I prefer to keep these original pieces seperate because, well, its a long discussion and something I just do. Its good for demonstration purposes anyways, so lets leave it like that please.

Duplicate this one, and start forming a wall. Make sure you rotate each one, and scale it differently so that even you couldn't even tell that its been Copy Pastad.



This is what I came up with.

- **Red Circle** - That will actually be a hole with some skeleton parts littered at its entrance.
- **Blue Uncompleted Square** - This area will actually be a big semi-circle area that I will leave mostly unfinished. You can jump off the ramp I will make back onto the ground below.
- **Green Arrow** - The path that I will make for the player to go.

Using these rocks are not the only thing you can use, their are other models at your disposal... I won't list them all, but take notice of these.

1. **Static_Objects > Cellarbase > Floor > dirt_pile**. These are good for the Outdoor dirt floors, as you don't want the ground to be completely flat. Use them to break it up and give it a more realistic touch. I wouldn't scale these up to much as the texture becomes extremely poor quality at a large size. They also don't match up to well with the `_fckg_QUOT_cellarbase_floor_rough.mat"`. But you want this texture for your Plane in this demonstration, you will understand why in the reason below.
2. **Static_Objects > ptest > graveyard_floor_dirt_pile**. This will be another model that you will use to make a large percentage of your Walls, Hills and the optimal choice for far-away mountains. They also work the best with `cellarbase_floor_rough.mat"` as the dirt pile texture is more or less the same as the cellarbase floor. **Static_Objects > Dungeonbase > Floor > dirt_mould_pile**. Another good dirt pile to use for distant mountains. I don't like the texture as much though, but its good to have variation in your kit.
3. **Static_Objects > Debris > dungeon_cave_in**. Another good model for walls and caves. Anything in the **Debris** folder is up for grabs.
4. **Static_Objects > Dungeonbase**. Alot of the models are useful for old ruins. The **tree_pillar** under the special category is a really good to.
5. **Static_Objects > Outside**. Aside from the `tree_pillar`, roses and Entity > Organic props, these will be the only plant life models you will get unless you have some custom models. *A problem I see with alot of CS, is that you don't bother to rotate or scale any of the trees, shrubs or grass you put down*. Nature is not orderly and bushes don't grow the same number of leaves pointing at the same rotation, neither do they all uniformly grow to the same height.

After some work, I got a rough floor plan of the size of this map.



If you are trying to go for a really large outdoor area, read these tips.

1. Make the place abnormally large, and periodically gauge the size of objects and the player in correlation of the map. You'll find that the map might be a lot smaller than you had planned. Its easier to shrink something rather than to expand it.
2. Box lights at large distances (*I think around 300*) start to have graphical glitches. Black boxes/planes start appearing randomly...
3. Spotlights at a medium-to-far distance with "*Cast Shadows*" make very blocky shadows. You can turn off the Shadows to get rid of the blockyness.
4. In the Level Editor, if your objects go extremely far away from where the X, Y, Z lines converge. The "*Toggle global ambient light*" & "*Toggle global point light*" will not reach be able to reach them. So don't be confused to why those objects on the other side are still pitch black. You can use a LightBox to illuminate the area if you need to work in the Editor, and going that far in the Game does not seem to have any direct or noticeable impact on gameplay.

There are a few problems we need to address while making a large outdoor level map...

1. Using a large "*graveyard_floor_dirt_pile*" that is so close to the player presents two big problems. One, the texture is stretched horribly. Two, the texture moves because of its normal or spec mapping or something. Normally at its normal size, the movement is small, but at this large size. The movement is considerable large, you can see it in-game when moving back and forth or left to right. To fix this, we need to put some things in front of it.



- Red Outline- The stretched dirt_pile that serves as a good prop for distance mountains. But is horrible to look at up-close.
- Green Outline- Some rocks I placed as decoration. You may notice that the top is of need of hiding, because the model just simply ends their. I'll be placing something later to hide it.
- Yellow Outline- The smaller dirt_piles that are much better than the stretched stuff.
- Blue Outline- A last decorative rock for the bottom. This one is also important because the dirt_piles just simply go straight into the ground. Leaving a undesirable effect, you can also use dirt_piles that angle to curve the ground.

So after some work...



- Red Outline - I put some trees up on the mountain for two reasons. One it makes it look better than a clump of dirt. Second it helps to trick the user into thinking the mountain is even more far away than it would without trees. This isn't as good for night times because its so dark, you wouldn't see them. But if you change the BoxLight to atleast 0.4, so its like a lighter grey. You can see them working their magic.
- Blue Outline- Another rock set piece I made, its just an arch.
- Yellow Outline- Something I learned while making this. Its trouble trying to put down each piece individually and rotating, scaling and making sure each one fits in. For one thing, its impractical and time consuming on a grander scale than this small map. So I went and made a Tree, put some bushes, grass around it and combined it all into a Compound Object. Now I can easily dot the ground with these and do minor adjustments to those that need it.

Some other tips...

1. If your going to make a set piece, say getting the grass and clumping 6-7 into a large Compound and dotting them around instead of 1 grass model at a time. When you first put down your first grass, turn off its Collision so you can run through it. Then duplicate it so you don't have to go to each placed down grass and turn off their Collision. This really goes for the bushes and trees, their really is no point in having a collision on any of them. Use the pink boxes to block the player, not their own mesh because players can get caught in them, climb them and sometimes fall through the ground. If you look at my trees closely, I actually have a thin pink box just for the trunk.
2. **Please rotate and scale the enviroment props, they make a huge improvements to your map.**
3. Try to make your map feel open, even if its a set path. Even better yet, have multiple paths for the player to go through to their destination. This is alot of work, but it can really pay off at the end.
4. **Make sure you fill your map with PinkBoxes, a big problem is that you can basically jump climb everything. And you certainly don't want your players seeing what they shouldn't be seeing or falling off the map for that matter.**

These are the basic guidelines for Outdoor levels. The rest is up to your creativity.

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