

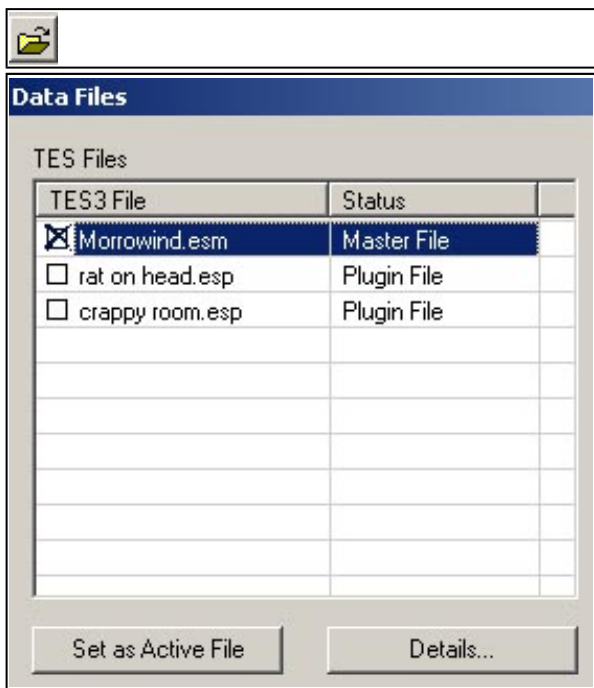
Tutorial 1: Using TES Construction Set

Ok, so you want to make your own plugins for Morrowind but you're a little intimidated by the construction set. Well never fear, I'm putting these little (basic) tutorials together so that you won't have the pain trying to figure out how to use the construction set that I had. I found Bethesda Softworks' tutorials lacking in detail and Bethesda is not going to be winning any awards for user-friendly design on the construction set (though it's not the worst piece of software I've ever seen either). I'll try keeping these tutorials brief.

Master and Plugin

Ok, first a few concepts: The construction set uses files with the extensions .esm and .esp. The esm files are master files--they contain the main content for a Morrowind world. The esp files are plugin files which modify a master file in some way. Although you can make an esm (master) file it's likely that you'll want to make plugin files which modify the pre-existing world. Making your own master file for a whole world would be lots and lots of work and is probably not something you want to try.

When you go to open files you'll need to understand the differences. You'll almost always want to open the morrowind.esm as your master file. What you do after that depends on whether you're modifying an existing plugin or creating a new one. Let's start:



Click on the file open icon

Check the box next to Morrowind.esm to load the Morrowind master file.

If you're creating a new plugin, just click Ok at this point. If you want to modify a plugin that you've already been working on, you need to set it as the active file so that the editor knows where to put the changes you make.

For example if I were working on the file rat on head.esp and wanted to change it a little, I would need to click on it (so it is highlighted) and then click Set as Active File before clicking Ok. Then any changes I made in my editing session would go into this plugin instead of creating a new plugin.

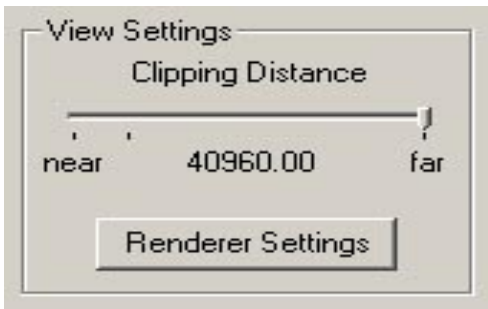
Wait for a while and watch the progress indication at the bottom of the screen since it will take a little while to load all the information into your computer.

Getting Started, Getting Around

Ok, so maybe I'm dumb but I was driven crazy because I didn't know what half of the buttons on the toolbar did and I had a bunch of problems right away from wrong settings. The interface for the construction set is also a little strange since the other windows are not contained inside the main construction set window. You may move them wherever you'd like on the screen--even outside the construction set main window. Here is some basic information about the main toolbar items and windows in the construction set.



These buttons open files, save files and set the program preferences (from left to right). Setting your pr unless you have a supercomputer sitting under your desk.



Click the preferences icon and move the Clipping Distance slider back toward the near side of the slider, somewhere around the tick mark just to the right of the word near.

Why do this? Move the slider all the way to far and open a cell with lots of things in it such as Balmora and you'll soon find out. As Mr. T would say, "I pity the fool." If you like waiting minutes or hours for redraws then put it on far.

The rest of the settings seem reasonable, so now click Ok.

These are your undo and redo buttons which you can also access from the edit menu or by using CTRL-Z and CTRL-Y.

Use these two buttons turn snapping on and off. The left button snaps to a grid as you move things and the right button snaps to an angle when you rotate objects. The distance or angle that you're snapping to can be adjusted in the preferences.



It would be very useful to have a "Snap to Object" option here also, but alas Bethesda didn't provide one. Many programs do provide the "Snap to Object" feature. If someone at Bethesda is reading this, put this feature on your list for the next revision of the editor.

The left button turns landscape editing on and off (instead of being in object moving mode) and the right button allows you to edit the path grids.



Turning off landscape editing is a little strange once you've turned it on since you must click a button in the dialog that pops up Turn off Landscape Editing to get it to go back into normal object movement mode. It doesn't seem to work like most standard toolbar buttons that just toggle on and off as you'd expect.

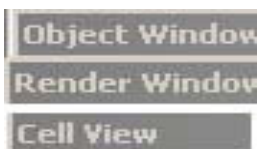
I highly recommend clicking the lightbulb button when you're building something new because without the light enabled everything can be very dark and it's hard to see what you're doing. Turning the fog on or off may be useful at times.



The last 3 buttons on the toolbar are the buttons for editing dialog, editing scripts and associating sounds.



You will see windows that belong to the construction set: the Object Window, the Render Window and the Cell View turned on and off under the View menu.



The Object Window lists all the objects available in the game under many categories. To see an object of objects of the type you would like.

Most categories are probably fairly self-explanatory, but the following categories of objects need some explanation:

Static is a group of objects that mostly don't change or move. If you look under this category, you'll notice a bunch of objects with names starting with in (for interior pieces), ex (for exterior pieces) and flora (for plants).

NPC stands for non-player character (or the people in the world).

Object Window			
Book	Clothing	Container	Door
Ingredient	Light	Lockpick	Misc Item
Probe	Repair Item	Static	Weapon
NPC	Creature	Leveled Creature	
Spellmaking		Enchanting	
Alchemy		Leveled Item	
Activator	Apparatus	Armor	Body Part

Leveled Creatures are creatures that appear according to chance and to the player's level so they can match the difficulty of the game to the character playing.

Leveled Items, similar to leveled creatures, are items that appear and adjust themselves to the player's level to give appropriate rewards.

Activators initiate actions. Beds that the player can sleep in fall into this category.

The picture shows items listed in the object window under the static

the items by clicking the column headers and resize columns by dragging the boundaries.

ID	Count	Name
A_Ex_De_Dar	2	Door
a_ex_de_rowboat	2	Row
a_ex_de_shack_door	1	Shack
a_furn_de_chair_3	0	Chair
a_furn_de_table_6	0	Table
a_furn_de_table_8	0	Table

Right clicking an object gives you actions for the item, single clicking the name allows you to change the object's name and double clicking brings up an edit window for the item.

WARNING: changing an object's properties changes the properties for every instance of an object in the game that references this object. For instance, if I change the Rat object to make a rat more vicious and bite off people's heads then every rat in the game will become this same way. If you want to make a vicious rat for one room, you need to create a new creature and call it something like rat_vicious and then use this new object in this room--otherwise you will modify all the rats if you modify the standard Rat object. You can choose to save an object with a new name (creating a new object) if you modify an existing one. You'll be presented with a dialog asking you if you'd like to create a new object only if you change an item's ID.

The Cell View window has two parts. The left side is pictured here.

Cell Name	Grid	R...
Molag Amur Region	9, -6	30
Molag Amur Region	9, -5	154
Molag Amur Region	9, -4	163
Molag Amur Region	9, -3	167
Molag Amur Region	9, -2	138
Molag Amur Region	9, -1	229
Molag Amur Region	9, 0	195
Molag Amur Region	9, 1	54
Molag Amur Region	9, 2	209
Molag Amur Region	9, 3	163
Molag Amur Region	9, 4	90
Molag Amur Region	10, -7	69
Molag Amur Region	10, -6	82
Molag Amur Region	10, -5	72
Molag Amur Region	10, -4	197
Molag Amur Region	10, -2	149
Molag Amur Region	10, -1	160
Molag Amur Region	10, 0	248
Molag Amur Region	10, 2	145
Molag Amur Region	10, 3	177

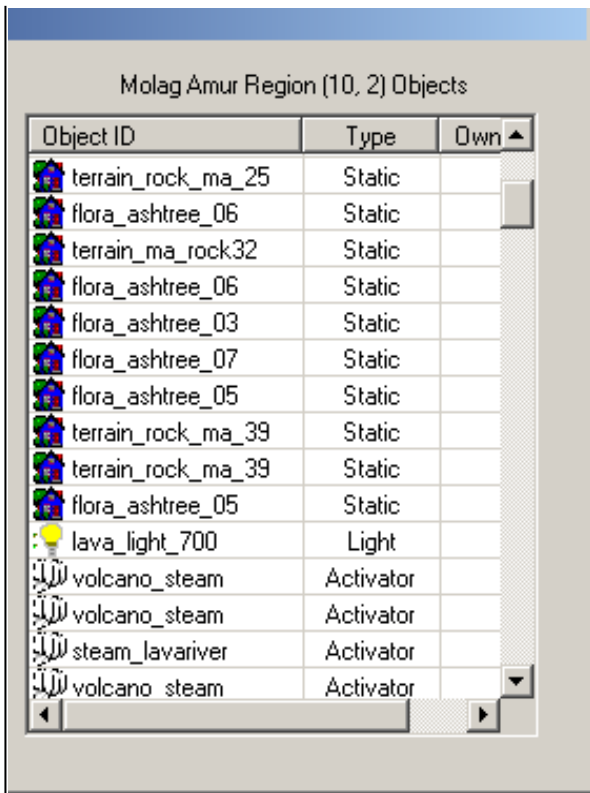
The left side of the cell view shows all the cells in the game. A cell is part of the game that loads as a whole. Ever notice when going from one area to another there is a slight pause? The pause happens while your computer loads a different cell. The computer also loads a different cell when you go from inside to outside.

There are two types of cells in the game: outdoor and indoor cells.

The outdoor cells are arranged on a grid across the land (and sea) with 0,0 being somewhere in the center of the map. Negative numbers for the first coordinate (x) are west of center while positive numbers are east of center. Similarly, negative numbers for the second (y) coordinate are south while positive numbers are north of center.

Interior cells do not have coordinates, but instead say indoor for their grid location. The indoor cells are reached by setting the teleport property of a door so that the player is moved to the cell when the door is activated. Door markers must be set for these items to work, also. More on this in another section.

When you double-click a cell from the left side of the cell view, a list of objects inside that cell appears on the right.



When you've selected a cell on the left side of the window you will see all the objects located within the cell you've selected.

Again you may sort the objects contained in the list by clicking the column headers at the top.

When you double click an object listed it opens in the Render Window

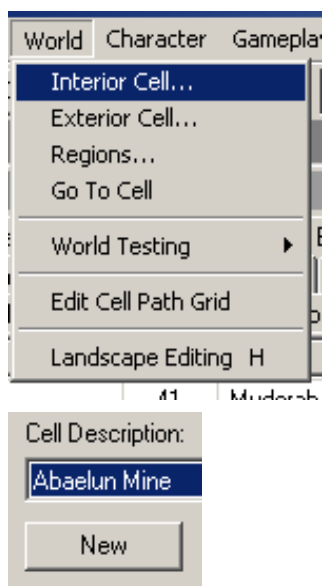


The Render Window is where you'll end up doing a lot of work if you're trying to make a basic Morrowind plug-in.

Here you place objects, move them around, change your view to look at your work and put things together as though you're playing with blocks. The render window is a little complicated to get used to and you'll probably feel like a 3-year-old child trying to get objects to move to the places you want them to go. Once you get used to the render window and the controls, things will go faster, though.

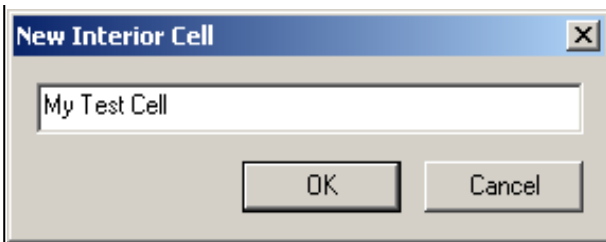
Note: if you have problems with the render window displaying objects, be sure your display properties are set to 32-bit color.

Lets play blocks



Just to show how the render window works, let's give it a try. Click on World | Interior Cell .

Click New in the window that appears.



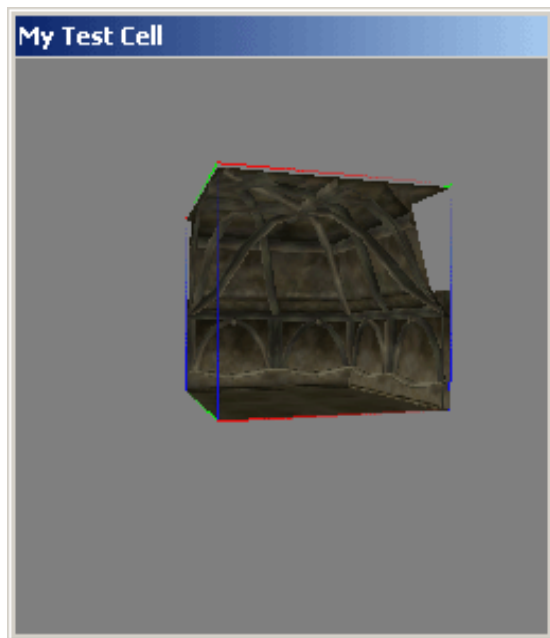
Give your cell a name such as the one shown at the left. Click Ok and then click Ok again.

Cell Name	Grid	Ref Count
Mount Kand, Cavern	Interior	179
Mudan Grotto	Interior	499
Mudan, Central Vault	Interior	76
Mudan, Lost Dwemer Che...	Interior	153
Mudan, Right Tower	Interior	23
Mudan-Mul Egg Mine	Interior	228
Mul Grotto	Interior	599
My Test Cell	Interior *	0
Mzahnh	Interior	154
Mzahnh Lower Level	Interior	61

Go to the Cell View window and find your new cell in the list. It should be in alphabetical order if you're sorting by cell name (remember, click the column headers to sort). You may also start typing the first few letters of the cell name to move the list to the part of the alphabet.

Notice the asterisk (*) next to interior. It indicates that the cell is a user cell that has been added and is a modification from the master file.

Double-click the cell name to see the objects (none yet) on the right side and it will display the cell in the render window (blank right now).



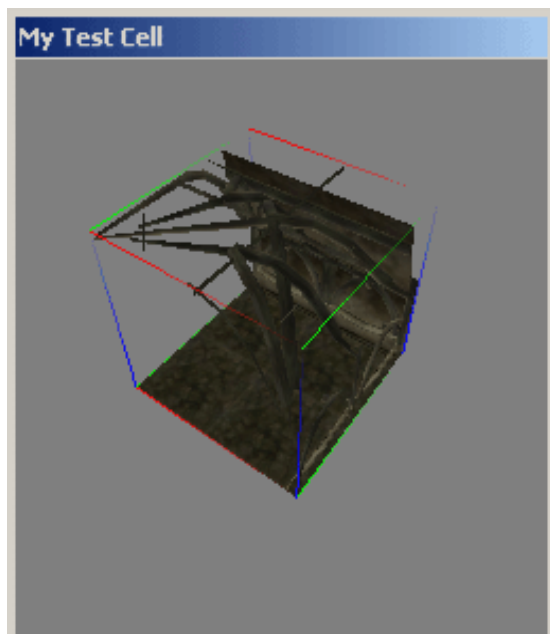
Drag a piece of room interior into your render window from the object window. The piece I've dragged into the window is called in_hlaalu_roomt_corner_01.

If it doesn't look exactly the same, don't worry, you'll learn how to change the view.

Notice the lines around the object indicating it is currently selected. If I push the delete button (while it is selected) it would be deleted from my cell.

An object can be selected by simply clicking on it. Multiple objects can be selected by pressing control while clicking on each object or you may lasso objects by dragging a box around them.

To deselect an object, click on some empty space or press d.



Rotating the view

Now it's time to rotate the view of the object. Hold down the shift button as you move your mouse slowly. Notice that your view of the object rotates around it.

The view rotates around whatever object is currently selected.

My Test Cell



Panning the view

To pan (move the view side to side or up and down) press the spacebar while moving the mouse. Alternately, you may pan by pressing the middle mouse button down while moving the mouse.

My Test Cell



Zooming in

Now try zooming in by pressing v while moving the mouse. Alternately you may zoom by scrolling your mouse wheel.

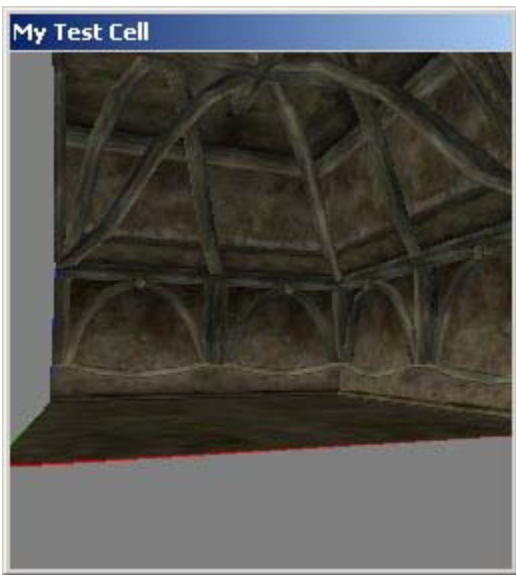
You may need to use all three methods (rotating, panning and zooming) to get the view I've shown here.

My Test Cell



Centering the view

To change your view to center on the selected object press c (shown here). To center from a top-down view, press t.



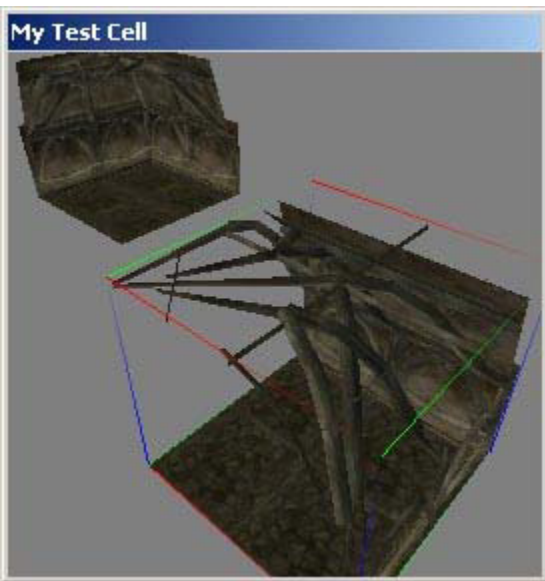
Copy and paste

With the object selected, copy it and paste it. You may do this from the edit menu or with the keyboard shortcuts CTRL -C and CTRL -V.



Get a good view

Use all the techniques you've learned so far to get a view of both pieces (rotate, zoom, pan).

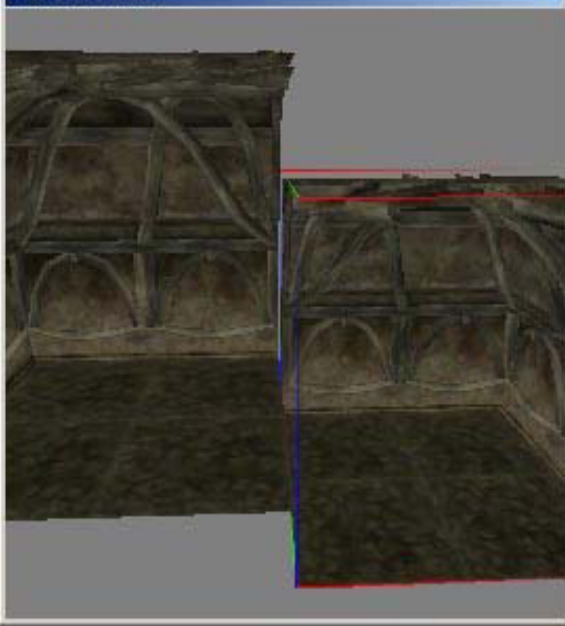


Rotate the 2nd piece

Click the toolbar buttons for snap to grid and snap to angle before rotating. Then rotate the piece by dragging it with the right mouse button so that it will join with the other piece. If the piece does not rotate, make sure it is selected first by clicking on it.

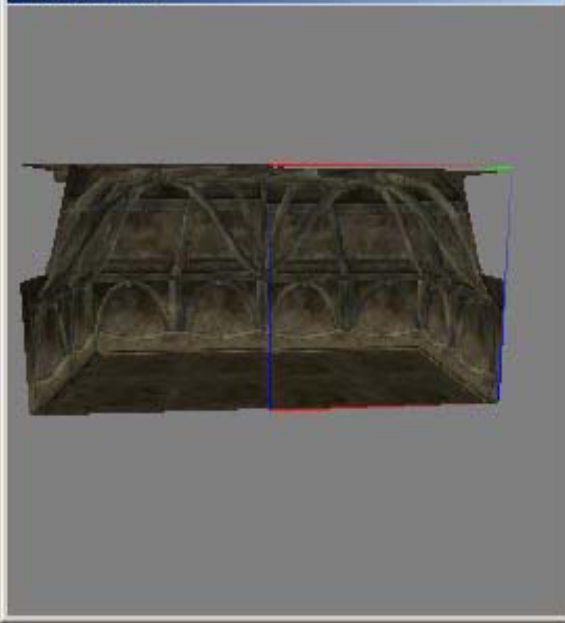
Move the 2nd piece

My Test Cell



Move the second piece to line up with the edge of the first piece by dragging it (with the regular mouse button) until it lines up. You will have to change your view a number of times in order to get a good view to accomplish this feat (rotate, pan, zoom, etc.).

My Test Cell



Vertical alignment

Turn off the snapping options on the toolbar. Now press the z button while you drag the piece. You should be able to move it so that it levels with the other piece. You also may need to move it backwards and forwards until the pieces match up. The z key enables movement up and down.

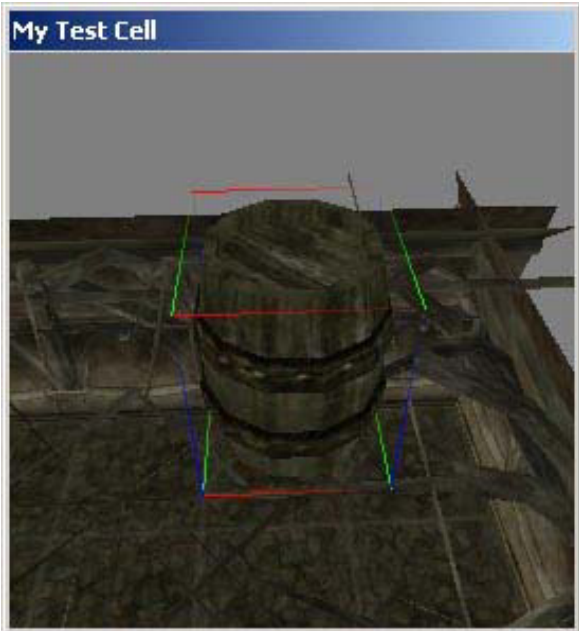
My Test Cell



An easier way

An easier way to make all your pieces align is to turn both snap options on and use the duplicate function (edit | duplicate or CTRL - D). When you duplicate a piece it exactly aligns with the original piece and then you may drag and rotate it (with snap settings on) so that it exactly aligns with the previous pieces. This is a much easier way.

Try out making a small room as is shown.



Add a barrel and position it above the room

Now drag a barrel object from the object window containers category. The one shown is barrel_01_drinks. Position it above the room you've built (so that it's floating over it).



Drop the barrel and position it

Now to drop the barrel press the f key to make it fall to the nearest surface. You may have to press the f key a number of times before the barrel falls to the correct level.

After it is on the correct level you may move it along the plane of the floor by clicking and dragging it with the mouse.

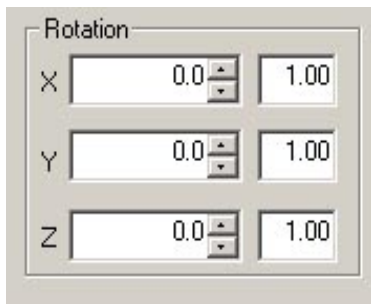


Strange rotations

Try adding an object and rotating it around a different axis or two. Press no keys (and the right mouse button) to rotate around the axis you expect. Press z or x while dragging with the right mouse button to rotate at other angles.

Note: be careful placing things at strange rotation angles since it's very difficult to get the rotation to match up with other items. If you play with these rotations you'll soon see what I mean. Objects don't necessarily rotate around their own symmetry in the way you would expect. It's very difficult to get things to line up or stack naturally when you've rotated them at unusual angles. The objects seem to rotate around an absolute world direction rather than their own symmetry.

Fixing messed up rotations

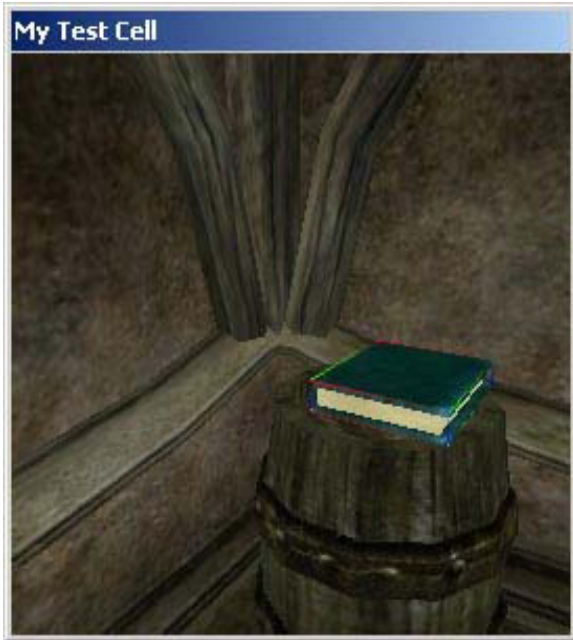


Sometimes after you've rotated things to a strange angle, the only way to get them back seems to be changing the rotation data manually.

Double-click the object you've rotated to a strange angle and a properties window appears for the item.

Change the rotation (X, Y, Z) to zero and the object should line up the way it was designed (so that it lies flat). Now you can drop it onto the barrel by pressing the f key.

If you need to tilt a whole room or area, I suggest building it level and then selecting all the objects (by lassoing or select all [CTRL -A]) and tilting the whole area after it is built.



For specifics about building an indoor space, adding objects and linking it to the world see [Tutorial 2](#).

Tutorial 2: Building and Linking an Indoor Space

Welcome to the second TES Construction set tutorial. If you haven't read the first tutorial, I suggest doing so now because it gives you important information on getting around the construction set, settings some preferences and getting used to the controls. I will assume you have the knowledge contained in the first tutorial already so I will not explain how to do these items in any detail.

When you create an indoor space in Morrowind, the indoor space and the outdoor representation of the space are completely separate. In other words, you could make a huge indoor space but have the exterior of the building (or whatever) look much smaller than the indoor space. You could also build a huge exterior but have a tiny interior if you chose. In most cases you will want to have the exterior and the interior spaces approximately match in size, layout and other items--otherwise the player will probably notice the difference and think that the plugin was made by a retarded monkey.

Let's try a simple example to show you how things work. Once you get the idea of how things work from a simple example you'll be able to make much more complicated structures.



Open TES Construction set and load up Morrowind.esmas the master file.

Find a location for your new structure

The first thing you need to do is find a location for your new structure. You may open up different outdoor cells in the Cell View Window to look at them. You may not see anything at first because the landscape is too far away from the camera position. You may have to open the preferences dialog to adjust the clipping distance (see previous tutorial) to far before you see the land.

Once you see some land you can zoom in closer and put the clipping distance back to a reasonable level so that it doesn't take so long to redraw.

Move between adjacent cells by using the arrow keys on your keyboard.

Adjust the view (rotating, panning, zooming) so you get the view you desire.

If you have a hard time getting a good view, you may want to double-click an object already contained in a cell (right side of the cell window) to give you a view of something already in the cell. That way you get a reasonable view of the ground and can adjust your view from there.

Remember, if it looks insanely dark, click the lightbulb option on the toolbar.

Add the structure, the steps and a door

You will probably want to have the snap to angle option turned on as you add the structure, the door and the steps. The objects I used here are `ex_de_shack_1`, `Ex_de_shack_Door` and `Ex_de_shack_steps`. It may take a bit of work to get things



West Gash Region -8,9



If you need to see examples of how to put things together, you may right click an object in the object window and click info. You can then look at other places in which that object is used in the game to get an idea of the context (double-click one of these to open up a render window showing this object in place in the game world).

Notice that the items I used start with ex (for exterior) and they are all shack objects so they fit together well when you get them positioned correctly.

You may also add trees, rocks and other items around the shack if you desire.

Be sure you sink the shack into the ground on all sides so it is not floating in the air.

Create an interior space

New Interior Cell

West Gash, Peasant Disco Hut

OK

Cancel

Make an interior space (see previous tutorial for complete details) that will contain the indoor part of this item.

When naming interior cells it is often useful to prefix the name of the outdoor cell (such as "West Gash" in the example). When named this way, cells are easier to find and are grouped together in the alphabetical cell list so you can find all cells in a region together.

Open your new cell

Now find the new cell you've created in the list of cells and double click it to bring up the blank rendering window for that new, blank interior cell.

Cell Name	Grid	Ref Co...	
West Gash Region	-1, 3	79	
West Gash, Peasant Disc...	Interior *	0	
Wilderness	-11, -5	0	

West Gash, Peasant Disco Hut



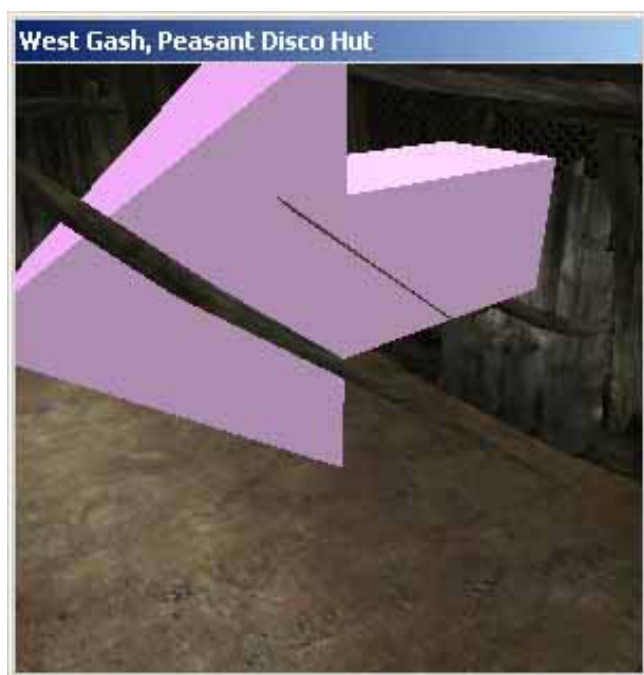
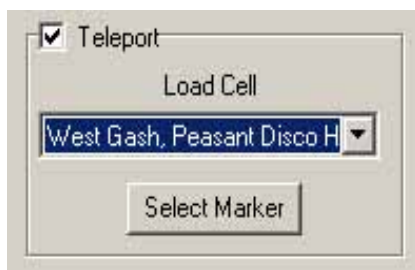
Add interior and door

Add an interior for the exterior you've constructed already. I've used the objects in_de_shack_01 and in_de_shack_door for the interior structure of the house and I've tried to put the door in the matching place that I put the exterior door in the outer cell.

It may help to enlarge the rendering window to get a better view of what you're doing.

Set teleport properties on the interior door

Double-click the door you've just added to open the properties window. Check the Teleport checkbox and select the exterior



cell that this door should connect to under the Load Cell drop-down list.

Click the Select Marker button and continue to the next step.

Position the door marker from the interior door

When you clicked the Select Marker button in the previous step, the render view selected and centered on a pink arrow. You will need to move the pink arrow around until it is positioned so the it points to the spot it will drop the player when they go through the interior door . In other words, you place the marker where you want the interior door to take the player.

You might need to look around the outdoor cell for a while to find the correct place for the door marker and you may need to change your render distance so you can see large portions of the landscape so you can find the correct place to stick the marker.

Set teleport properties on the exterior door

Double-click the exterior door of the shack. Check the Teleport checkbox and select the interior cell that this door should connect to under the Load Cell drop-down list.

Click the Select Marker button and continue to the next step.

Position the door marker from the exterior door

When you clicked the Select Marker button in the previous step, the render view selected and centered on a pink arrow. You will need to move the pink arrow around until it is positioned so the it points to the spot it will drop the player when they go through the exterior door . In other words, you place the marker where you want the exterior door to take the player (into the interior).

You may need to move the door marker fairly far since it may not drop the marker anywhere near the door.

Add items you want in the room

Drop some items into the room that you feel are

West Gash, Peasant Disco Hut



appropriate. I've added creatures, a bed, a book and a container or two. You'll probably want to add more "clutter" than this, but this is a start.

I've turned off the bright pink door marker (view | markers) so it wouldn't distract me.

Add light to the room

Before you quit, you probably want to add light to the room so the player is not in darkness. There are two types of light you may add--lights with associated artwork (such as the candle) and lights without artwork (represented by the bulb in the middle of the room).

You must be showing markers for the lights without artwork to show up (turn this option on).

Lights without artwork simply add light to the room without an obvious source of light while lights with artwork show the source of the light also.

Note: there seem to be some problems in the editor getting lights to fall (pressing the f key) to the surface below them. I couldn't get this function to work. Also changing the view of a light object (pressing c or t) just puts the view into empty space and you may never find your light object again. It would be nice if these items were fixed since I had to move all light objects completely by hand--which can be a pain when you have to move the light objects long distances.

You may set some light properties for the interior cells when you create or edit the cell (World | Interior Cell . . .).

Save your plugin

After you have your space the way you would like it, give it a name and save it.

Load the data file in Morrowind and test it

Check both the master file (Morrowind.esp) and the plugin file (disco hut) so you can check the functioning in the game.

If you want to teleport to the area that you've added the plugin, press ~ in Morrowind and type Player-> coc "West

West Gash, Peasant Disco Hut



File name: disco hut






Save as type: TES Plugin Files (*.ESP)

Gash, Peasant Disco Hut" to move your character there. (If your interior cell is named something different put the name you used instead.) Any names with spaces in them must be put in quotes.

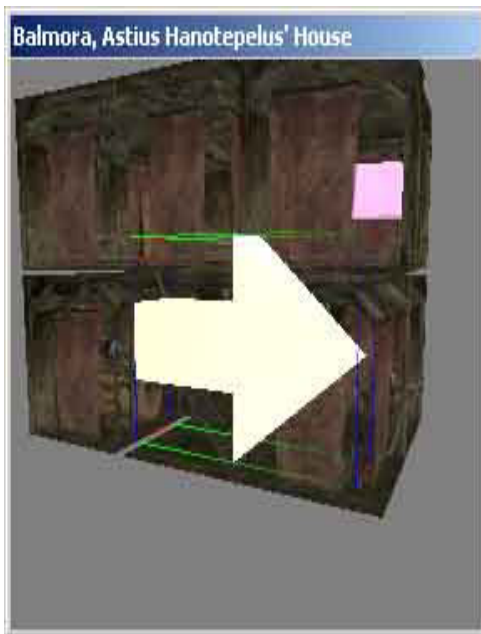


Test the doors to make sure they function correctly and make sure things look the way you would like. The door should work both directions (going in and going out).

After you've tested the space you've made you may want to add more items to the room, fix problems (such as levitating objects or objects embedded in other objects) or modify it in some ways.

Morrowind Files	
TES3 File	Status
<input checked="" type="checkbox"/> Morrowind.esm	 Master File
<input type="checkbox"/> rat on head.esp	 Plugin File
<input type="checkbox"/> crappy room.esp	 Plugin File
<input checked="" type="checkbox"/> disco hut.esp	 Plugin File
inbalmor0000.ess	 Save File

Observe the direction the compass points before you enter the house and the direction it points after you enter. If it points different directions you may need to use a North Marker so the compass directions match and make sense.



Making Directions Match

To make the directions line up, drop a North Marker into the cell and rotate it so that it points in the direction that north should be. The north marker is located under the **static** category. Be sure you're showing markers in your view settings, otherwise you will not see this marker.

Installing the plugin

In order for a plugin to be seen in the load plugins feature in Morrowind it must be in the data files folder within Morrowind. The location is usually \Program Files\Bethesda Softworks\Morrowind\Data Files. If you post a plugin you may want to give people these instructions

If you would like the sample plugin "West Gash, Peasant Disco Hut." then [download it](#) .

Continue to [part 3](#) of the tutorial to find out about landscape sculpting.

Tutorial 3: Working with land

Ok, so you want to change the shape of the land. In this tutorial, we'll try making a tiny island somewhere just off the coast. Maybe you can even put a lighthouse or something on the island after you're done. It's up to you, but I'll show you the techniques I've figured out for landscaping and viewing the land.

I expect that you've worked through the other sections already because you'll need the skills you've learned so far in order to make landscaping work right.

Of any of the sections, I think this section is probably the most useful since I had to experiment for hours to figure out the techniques I use for viewing the land and getting around. Without good techniques for moving around the land mass and looking at things, you'll probably go crazy because the camera, rotation and other tools don't work quite the same way as they seem to work in the object mode. The help files in the construction set don't explain using the controls to view the land very well. So read on.

Open the Morrowind master file

The first step to get started landscaping is nothing fancy--just open the Morrowind master file (and a plugin file if you want to save the changes to a pre-existing plugin).

Put yourself in landscaping mode

Though it seems obvious, put yourself in landscaping mode by clicking the button as shown on the right.

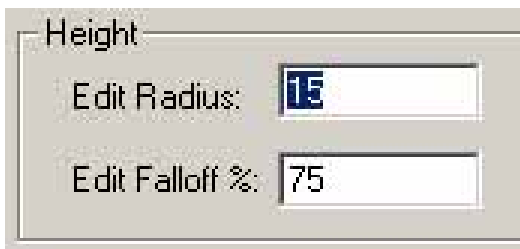


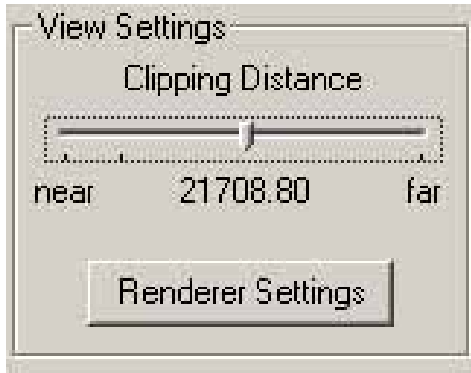
Change the edit radius for "walking mode"

I recommend changing the edit radius for right now to between 15 and 30 instead of the default of 5. We will not actually be using the radius of 15 to move land but to walk across the landscape to find a place somewhere just off the coast where we can make an island.

The edit radius seems to have some effect on how close the camera zooms in for "walking mode." Walking mode is not an actual mode, but is just a technique I've made up for viewing the landscape as I'll explain in the next few steps. The larger the radius, the larger the "steps" we can take while moving across the landscape. If things zoom in too close, increase the edit radius; if they are too far, make the edit radius smaller.

It is very easy to get disoriented when you're rotating things, zooming in and out or looking down from miles and miles above the earth. It is also very easy to lose any sense of direction (north, south, east and west) after you've rotated the camera with the mouse a few times. "Walking mode" to the rescue.





After you've changed the radius to 15, just close the dialog window.

Move the clipping distance to about half way

You'll need to see farther when trying to modify the landscape than you would when you're trying to modify an interior or something that is closer and more detailed. I recommend setting the clipping distance about half way along the slider in the preferences window. This seems to me to be a good balance between speed and seeing far enough to know what is going on. Of course you can change this setting to your taste.

Make your rendering window as big as you can

Even though the pictures I'm putting on this web page are small, making your render window as big as you can will help a lot in your being able to see the detail you need.

These pictures are small because I wanted to save on download time for the Internet.

Open an initial cell somewhere that you think might be useful

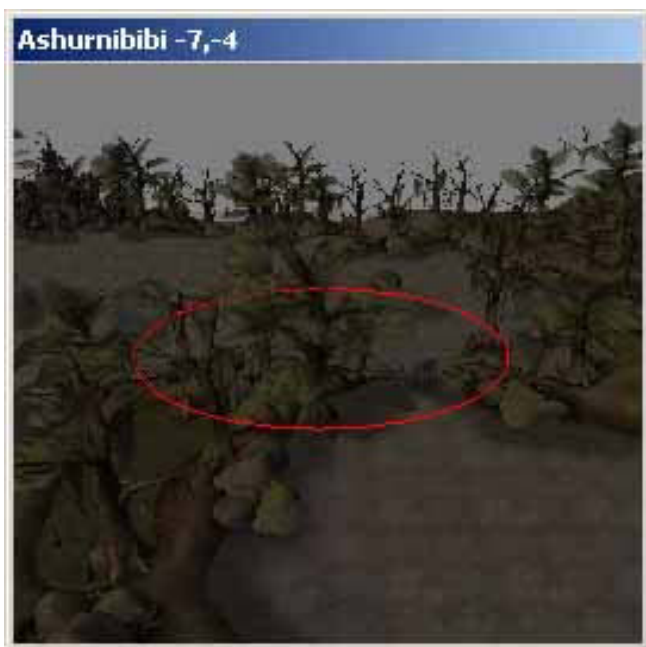
I double-clicked on the cell -7, -3 in the cells window because I thought it might be useful. I wanted to look to the west and south (remember negative numbers for x are west and positive ones are east, negative numbers for y are south and positive ones are north).

When you open the cell you'll get an overhead view which makes it difficult to distinguish any height features--not very useful.

Put the red circle (your landscape modifying circle) somewhere in the middle of the window and press the c key. Remember, the c key centers on the selected object with a side view in the object mode? Well, the key does a similar thing here, but it centers on the landscaping circle in landscaping mode with a side view.

If you want to center on an overhead view instead, you can press the t key. I usually find the side view more useful.

When you center (with either the c or the t keys) the program seems to align the directions so that up is north, down is south, left is west and right is east. These keys are very useful if you've been twisting things around with the rotate camera buttons and you've lost all sense of direction (it is easy to do



this).

Take a step south

Here's how to "walk" across the landscape.

Move the landscaping circle in the direction you would like to move. In this case I want to move south until I reach the ocean, so I've moved the landscaping circle to the bottom of the render window (remember down is south). See the top picture of these two.

Down=south, up=north, left=west, right=east

Now, press the c key on the keyboard. The c key moves the landscape so that the magic landscaping circle is in the center of the screen again. It has moved the place I had selected in the first picture back into the center of the second picture and "walked" me south a step.

You may also use the arrow keys on the keyboard to move the landscape by 1/4 cell increments, but I find the "walking" method more useful since it keeps the view at a certain orientation and distance from the ground so you don't get disoriented.

If you use other camera movement methods (rotating around, zooming in and out) these methods always rotate around or zoom towards the landscaping circle. A lot depends on where you place the circle in landscaping mode.

Continue walking around the landscape until you reach the ocean and find a good place to make a little island. There will be pauses every few "steps" you take since the computer will load different cells as it crosses cell boundaries.

Raising and lowering settings

Now that we've found a place that is underwater, we can raise up the land so that it makes an island that sticks out of the water.

The program allows the land only to be raised and lowered, you cannot twist and curl the land in any way. Still, raising and lowering provides most of what you need to make a great landscape.

Now you may want to resize the edit circle in the edit radius box (click the landscaping toolbar icon to get the dialog with the radius). A large radius moves large areas of land and a small radius moves small areas. The default is 5, which is fairly small.





You may also want to change the Land Sensitivity Multiplier in the preferences dialog box. The default is 1 which moves land very, very slowly. If you want to move land larger distances (without having to drag it many, many times) put a higher number in this box such as 5.

I recommend using a radius of at least 10 and a multiplier of at least 5 to raise an island from beneath the waves. For smaller landscaping you probably want to reduce the radius and the multiplier so you don't make such large landscaping moves.



Raise the land

To raise or lower land, just drag it upwards or downwards. Sometimes it is helpful to switch the view to the wireframe mode (by pressing w or using the view menu). The advantage of wireframe mode is that you can see through parts of the land and see the contours without having to rotate the land as often.

You will probably want to switch views between a front view (press the c key) and the overhead view (the t key) so you can see things from different angles and so you can get to areas of land that you would like to raise and lower.

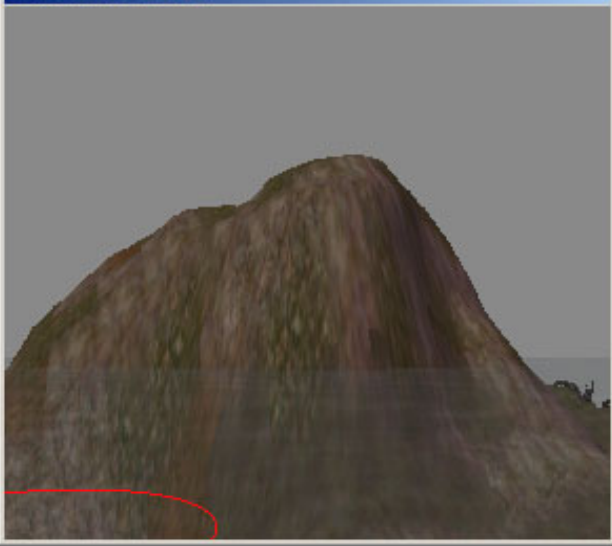


When moving land, and especially before switching in and out of wireframe view I recommend saving your file. I had many, many crashes on my computer when I switched in or out of wireframe view. It may be a configuration problem specific to my computer, but I also wouldn't be surprised if the construction set is buggy. It wouldn't be the first time that Bethesda released buggy software (remember Arena and Daggerfall?).

When working with the land, experiment with the options for "soften vertices" and "flatten vertices" to see how they effect things (landscape dialog box).

Texture it

Wilderness -11,-6



To give your land texture, open the landscaping properties window again and select a texture from the textures shown.

Paint the texture onto your land by painting with the right mouse button.

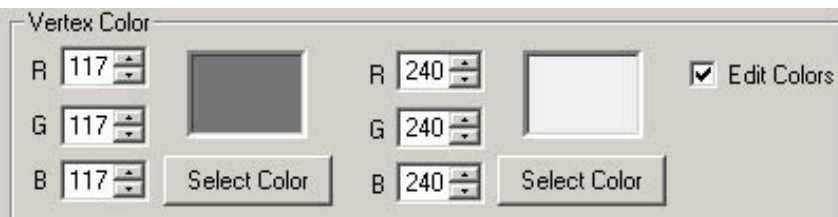
You may select other textures from the landscaping properties window and paint them on, but Bethesda's documentation suggest that you should have no more than 2 textures right next to each other since the blending of more than 2 textures doesn't look good.

Bitter Coast Region -10,-5



Add accessories

Add some trees, bushes, rocks and other decoration to your landscape. Many of these items are located under the static object category.



Wilderness -11,-5



Add vertex coloring

Open the landscape dialog box, check the Edit Colors box to enable painting with the shades of colors you specify. When the edit colors box is checked you may paint the colors you specify in the color boxes onto the landscape. The first color is applied with the left mouse button and the second color with the right mouse button.

It adds interest to color in areas under trees, against rocks and other places that need different shadings of color.



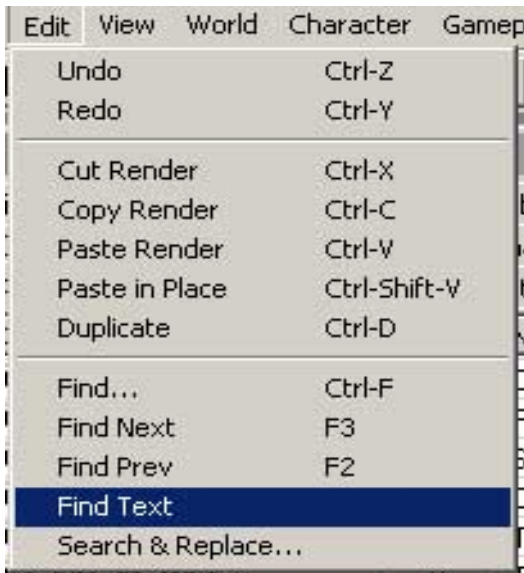
Test your file in Morrowind

Test out the file in Morrowind to see if the it works the way you would like it to and then make any modifications necessary.

To teleport to an outdoor cell with your character, bring up a command window by pressing ~ and then type coe x, y where x and y are the coordinates of the outdoor cell.

You may download the [basic island](#) I created in cell -10, -5 although it is not extremely exciting it will give you some idea of how to create outdoor cells.

Some assorted tips



Find an object

Sometimes you may want to search for an object by text. Use this option to do so and find dialog, objects, etc. Saves some time scrolling through the lists of objects.



Quickly go to an outdoor cell by coordinates

For instance if I wanted to go to cell -10, -5 I would type these coordinates into the dialog for Go To Cell.

About wilderness cells

The editor automatically creates Wilderness cells if you change the landscape somewhere outside the world defined in the Morrowind.esm file. It's a good idea to make large changes to the landscape somewhere away from the main parts of the game so that any plugins you create do not cause interference with the main game for someone else installing them. It is also a good idea to document your plugins so that people using them know if the plugin will interfere with anything in the game or other plugins they have installed.

West Gash Region	-1
West Gash Region	-1
West Gash Region	-1
Wilderness	-15
Wolverine Hall	18
Yakanalit	Int
Yakaridan Camp, Kitbael'	Int

You probably also want to rename the Wilderness cells to another name that is more descriptive of the changes you made to the landscape.

About regions

Each cell is defined as being in a region. The region it is in controls the kinds of weather that can appear in the cell as well as the ambient sounds that will be heard in the cell. You may also change the color that each region shows on the world map here.

To get to the region dialog click **World | Regions . . .** The region dialog allows you to define these pieces of information for a new region or to change the information for an existing region.

To include a cell in a region, read on.

Chance	Priority
4	1
4	2
4	3
4	4
4	5
5	6
5	7
5	8
5	9
5	10
5	11
5	12

Cell Description: Ahemmusa Camp - (11, 16)

Region (Weather Type): Azura's Coast Region

☐ Illegal To Sleep Here

☒ Map Color

R: 202 G: 165 B: 96

Select Color

OK

Changing the region an outdoor cell is in

Click **World | Exterior Cell** to associate a specific cell as being part of a region. Here you may choose the weather type of a cell (which region's weather type it will use) and also a separate color on the world map that is different than the region's color (such as for cities).