TUTORIAL - Gmax (version 1.2) (for Trainz 2006 and 2004) Updated Sept. 15, 2008. By Jytte Christrup.

Lesson 1:

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HOW TO MAKE A SIMPLE HOUSE, **Step by Step** (and how to make it usable for Trainz)

[PART 1 - Gmax]

Are you a total newbie to Gmax? Would you like to try your hand in creating something for Trainz, but haven't the foggiest idea how to go about it? Have you looked at Gmax or some of the tutorials out there and found it incomprehensible? Well, then this tutorial is for you.

Why another tutorial? some may ask. Because only a few days ago I was a total newbie too, and I know exactly how some of the tutorials fly way over your head, when you're a new dummy in this field. They are full of alien words like "polycount", "vertex", "uvwmap" and other sophisticated names that you have no clue what to do with (let alone what it is).

Over the last couple of days I created my first houses. And I'm here to tell you, that it's not as hard as it may seem at first. I was lucky enough to receive help and encouragement from several fellow Trainzers, and between that and following parts of several tutorials out there, I managed to get there.

So, as you've already figured out, I am no expert, just a beginner like yourself. But I can share my hard earned experience into this venture, to guide you on your first stumbling steps in Gmax.

I will show you every detail, while keeping it as simple as humanly possible, but still take you from scratch to a finished house in Trainz. Nothing fancy, but still a house.

Did you just scroll down the page here to sneak a peak? Got discouraged by the looooong page and hundreds of pictures? True, you are not going to learn this in 5 minutes, it will take you a little while to go through this tutorial. But it's only so very long because I show you everything, and there's nothing difficult. Just follow the page, step by step, and picture by picture, and you will have your first house made.

Before we start, there are a few things I need to point out, in case you don't know already:

First of all, when I say Gmax, I actually mean "Trainz Asset Creation Studio", which is a "version" of Gmax, that allows you to export your finished product to a file that Trainz can understand and use. Although it dates back to 2002, version 1.2 is still the latest (Sept.2008)

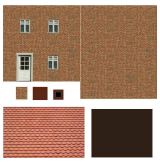
You can download it from Auran here: Trainz Asset Creation Studio (free) Download Gmax here: http://www.turbosquid.com/gmax (free)
You are required to register your version of Gmax before you can use it (also free).

In Gmax you first create a basic structure, then "wrap" it in a skin. A "skin" is a texture file, which is just a fancy word for a regular picture made in Paint Shop Pro (as I use) or some other paint/image software. The "wrapping" part (or mapping) is just telling Gmax, that this part of the picture belongs to that part of the structure.

One thing is real important about these skins: They have to be "power of 2" in pixel size. What that means, is that Trainz (mainly CMP) refuses to work with your file if it is not sized in a particular way. Let me just tell you that in order for Trainz to accept your image file, it has to be sized with any of these number: 16, 32, 64, 128, 256, 512, 1024, 2048.
So, an image file 128x128 is good, so is 256x512. Any combination of those numbers is ok, you see?

You could use jpg files. They do work, and they are "packed" in smaller sizes, making the asset smaller (in KB) and thus easier to download. But there's a price to be paid for that. Trainz have to process that "packed" file when showing your asset, so it's harder on the performance (frame rate). I recommend you use bmp format instead.

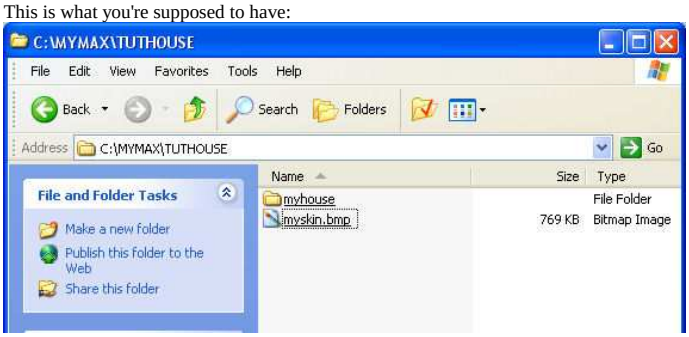
You will need a skin for this exercize, so I made one (myskin.bmp) that you can download here. (right-click and choose "save link as")


This is what it looks like.

Before you download, create a folder on your PC, for your Gmax projects. Let's just call it C:/MYMAX/ for now.
In this folder you create another folder, call this one "TUTHOUSE"
When you download the picture file, save it to the C:/MYMAX/TUTHOUSE/ folder that you just created.

Within the "TUTHOUSE" now create yet another folder called "myhouse" (don't use capitals here). We will need this folder later.

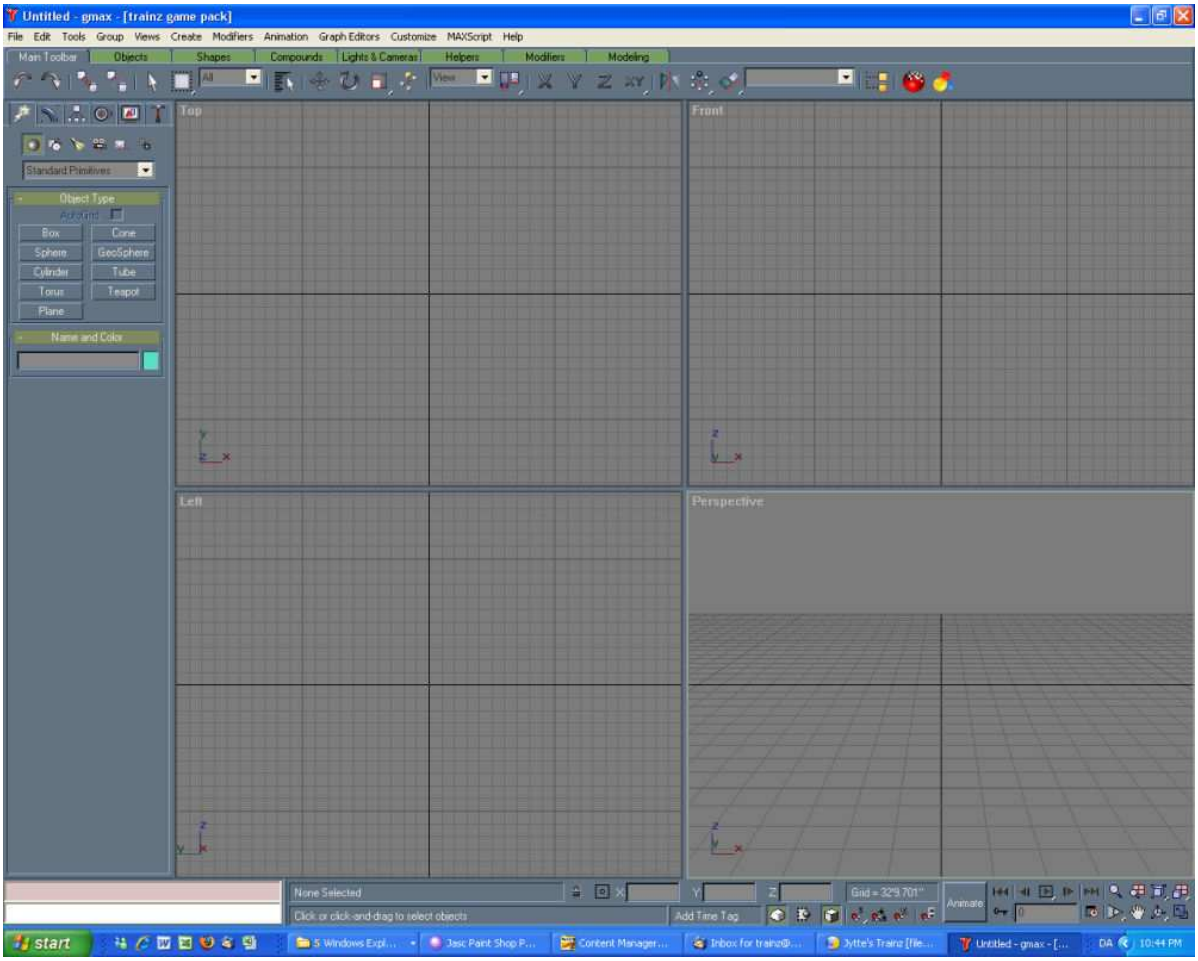
This is what you're supposed to have:



(See, I told you I would show you every single detail.)

That's all you need. Let's get started.

When you first open Gmax, it will look like this:



Pretty intimidating, but you'll get to know your way around soon enough.

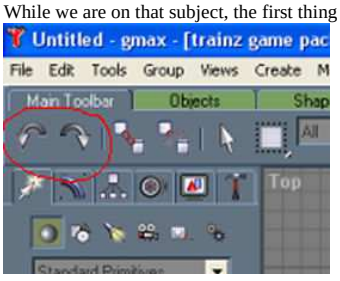
A few words on Gmax, before we continue.

Save, Save and Save again! Every time you've done the least little bit that worked the way it's supposed to, SAVE your file. Gmax (like many programs, who shall be unnamed) will on occation take a dive, crash, go haywire and do strange things that it's not supposed to. It's especially fond of doing that when you've worked for the longest time to get something particularly difficult done, but before you saved it!

Sometimes Gmax will do weird things, I mean really weird. Don't tear your hair out over that. Just close the whole thing down, open it up again, and open the file that you just SAVED. Quick and painless remedy.

When you mess up beyond "undo", push a button you shouldn't have, or just land in some trouble you don't know you way out of, just start fresh from the "ok" file that you SAVED.

While we are on that subject, the first thing I want to show you are these little fellows:



In the upper left corner, these are the "undo" and "redo" buttons.

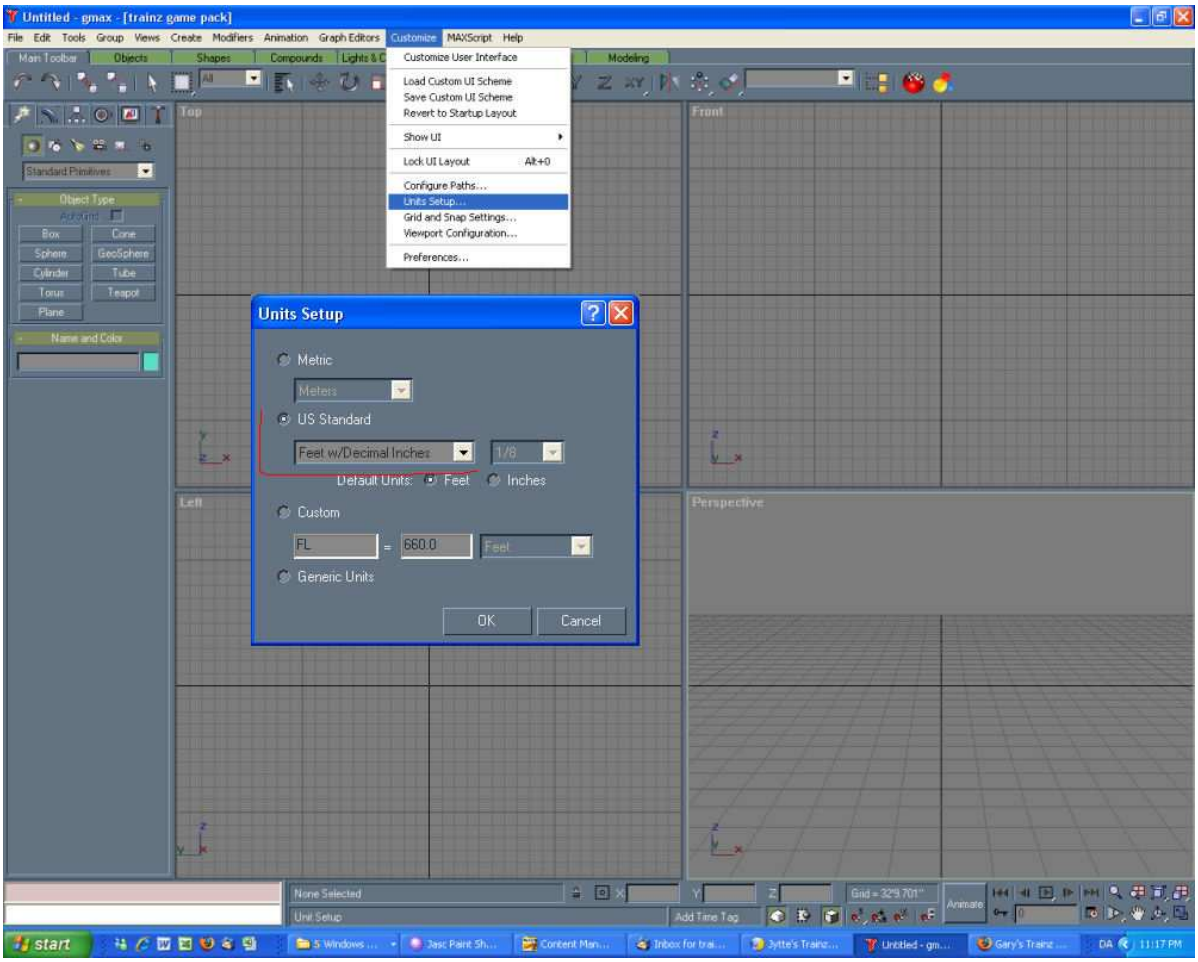
The "undo" button on the left is your friend.

Mess up, undo, mess up, undo, you'll probably get some practice on that.

First, let's make sure we are set up the same.

This tutorial was created in Feet/Inches. In order to use the measurements etc. I give you along the way, you need to be set up the same way.
If you happen to like metric you can always change it to that later.

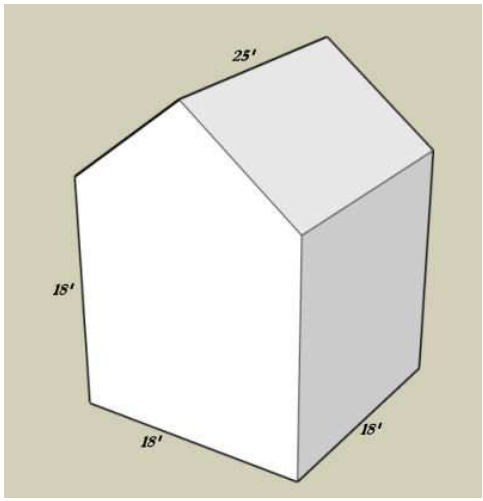
For now, go into "customize" in the top menu, click "units setup", and choose "US Standard" and "Feet w/Decimal Inches", then hit OK.



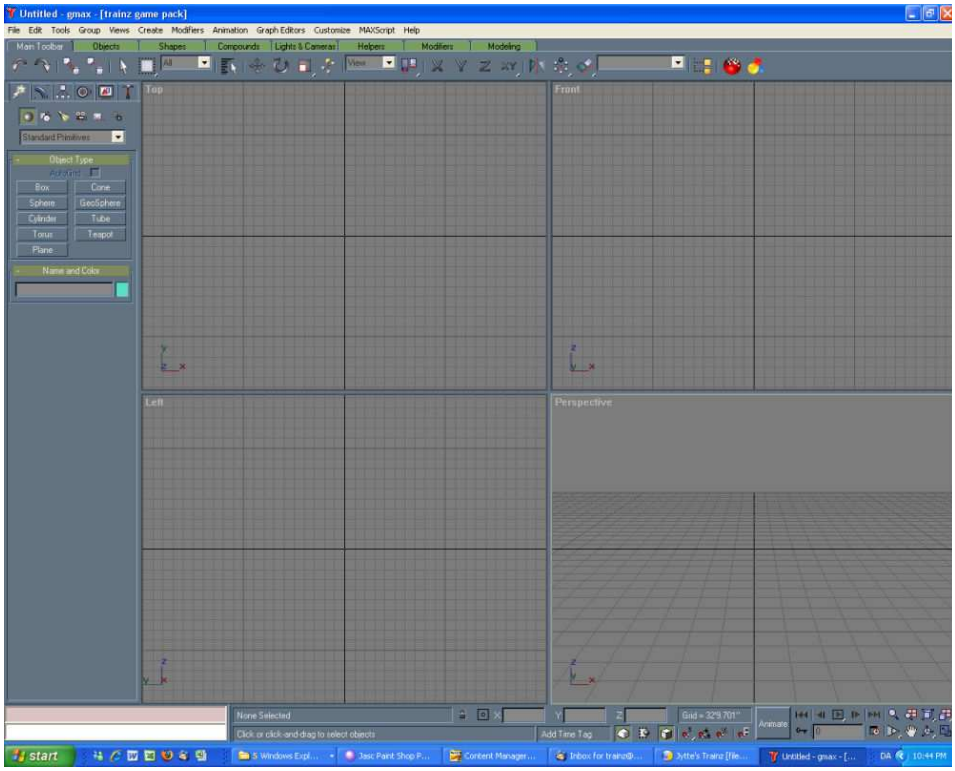
What we are going to create, is a house that looks like this >>

It is 18 feet wide and long, 18 feet high on the walls, and the pitch of the roof is at 25 feet.

Don't worry about these measurements, we are just making a sample here.



Now lets look at Gmax again.



I am not going to explain *everything* to you, I couldn't even if I wanted to. I am just going to introduce you to
the basic buttons as you need them.

The four big panels are the main views of your object, you can change these views, and I will show you later how to do that.

It's hard to see on this picture, but in Gmax you will see
that in each of the views 2 of the lines are a heavier black,
making a "crosshair", that represents your center at ground level.

Have you noticed, that when you go to rotate an object in Surveyor, it rotates around it's own axis? Well, that's because
that object has been properly "centered".

You may or may not have encountered an object that instead
seem to make a big circle around some hidden point. That's
an object that hasn't been centered properly.

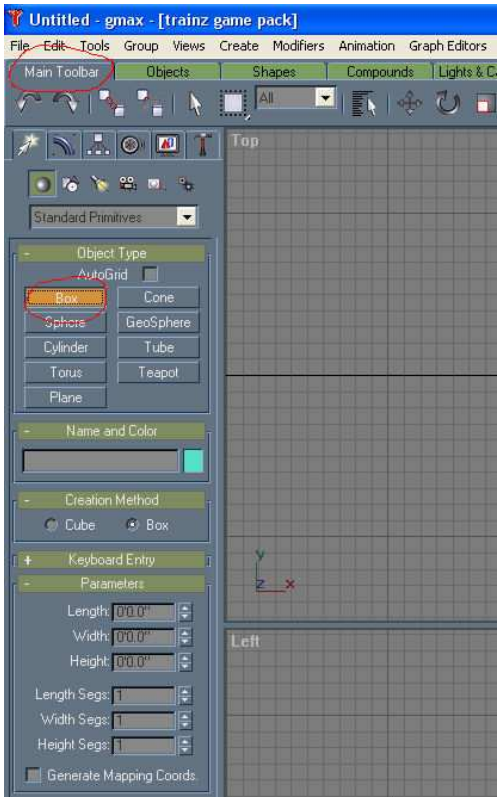
For many reasons, this is important to Trainz, so we are
going to make sure our little house IS centered. More about
that later.

We start by making a little box.

Make sure you are in the tab that says "Main Toolbar"

A little further down, under "Object Type" are two rows of buttons. Click on the one that says "Box"

You will see it turn orange, and a new area just popped up, called "Parameters".



Move your mouse into the upper left panel (Top view).

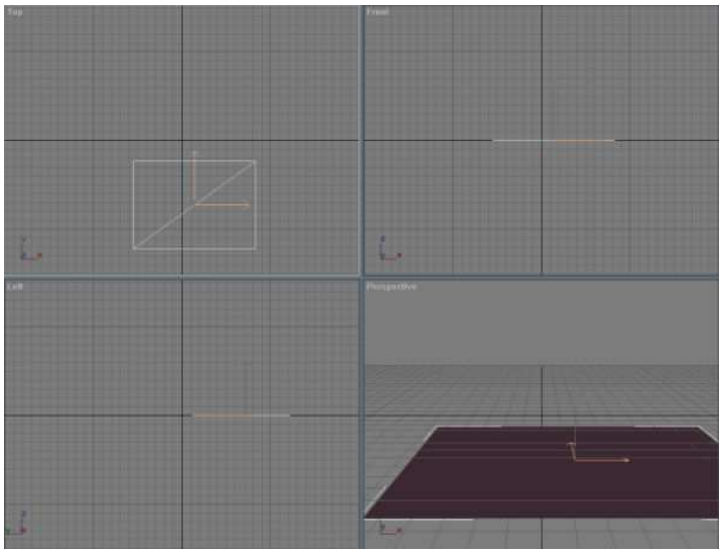
You will see your cursor change to a crosshair.

It does not matter where in the topview you put your cursor.

Push your left mouse button and hold,

while still holding, drag your mouse upwards and to the right

till you have formed a little square, then let go of the button

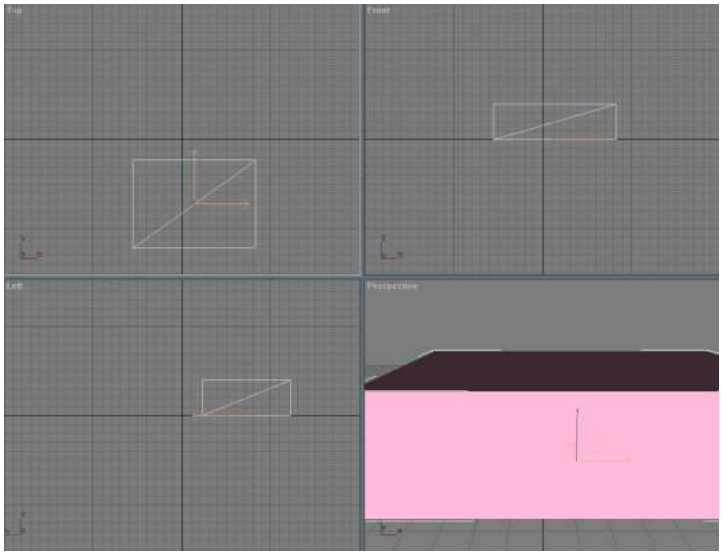


Now drag the mouse further upwards, and you will see a box rise with it.

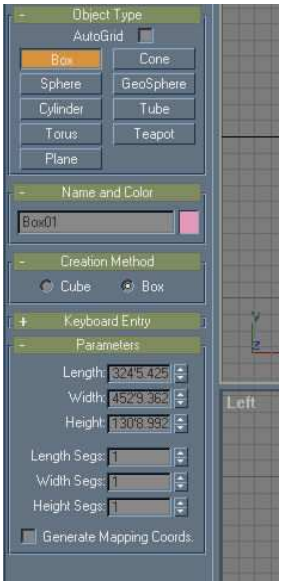
Left click your mouse again

You now have a box.

Don't worry if your box is a different color than this one, that is arbitrary.



While you were dragging your mouse to create the box, the measurements of the box you made were entered in the Parameters, and the box got a name, "Box01".



Change "Box01" to "house"
(just type right over it)

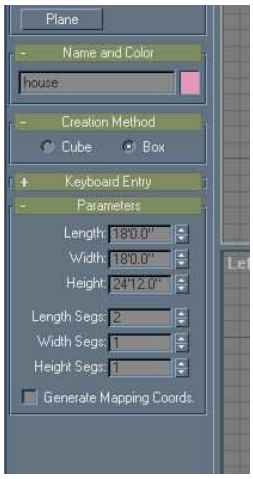
Then enter the measurements I gave you earlier:

Length **18**'
Width **18**'
Height **25**'

you just type "18" etc in there and it changes

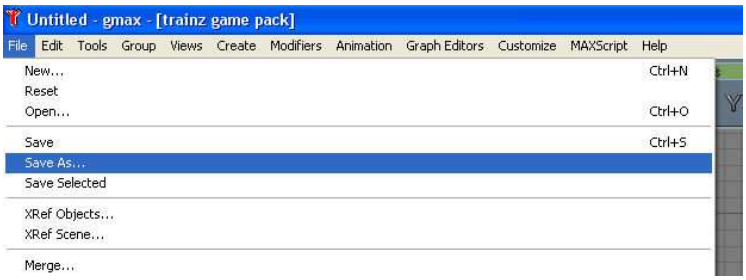
As you can see here, as I typed "25" into "height", Gmax changed that to 24'12" (which is the same, for you metric people).
Don't ask me why, it doesn't matter.

One more thing: see the box called "length segs"
type **2** in there (we get back to that later)

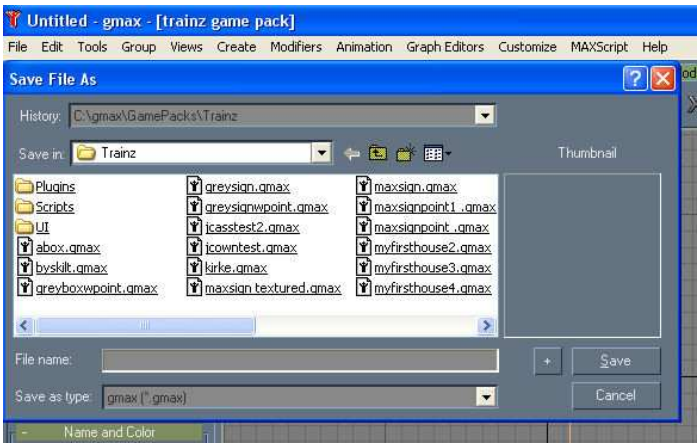


Now, that we have our box ready, would be a good time to save it.

Go to "file", and "save as"



Gmax save window pops up, it opens default in the gmax folder.
You don't want to be here.

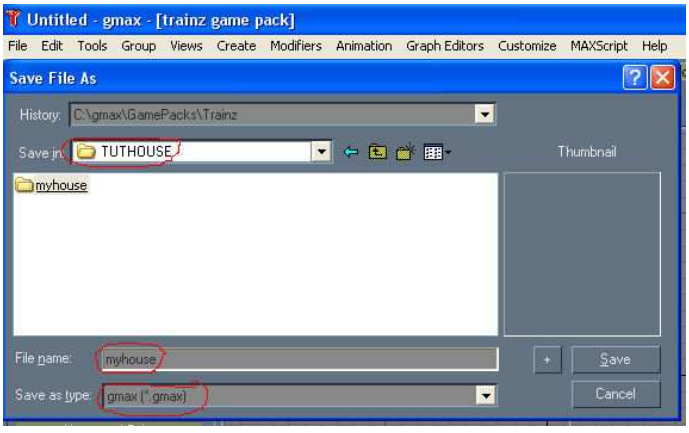


Maneuver til you get to the folder "TUTHOUSE" that you created earlier.

Enter file name: "myhouse" (no capitals)

Make sure the type is "gmax"

then hit Save



You will see the file name appear in the upper left corner as you saved it.

Now close Gmax, yes close it.
I want to show you how easy it is to recover from crashes and messes.

Open Gmax again.

When you click on "file", you will see at the bottom of the drop-down menu that appears, a list of recently used files.
(If this is your first try, "myhouse" will be the only one.)

Now click on the file "myhouse.gmax",

and you're back where you were a second ago.

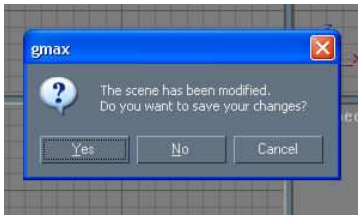
This is what you do when something goes bump in the night, and Gmax disappears on you.

Now I want to show you how to recover from messes.

So go ahead, mess it up. Hit some buttons, do what ever, as long as you change what you just had on your screen.

Now go to "file" again and pick "myhouse.gmax" just like before.

This little window shows up >>



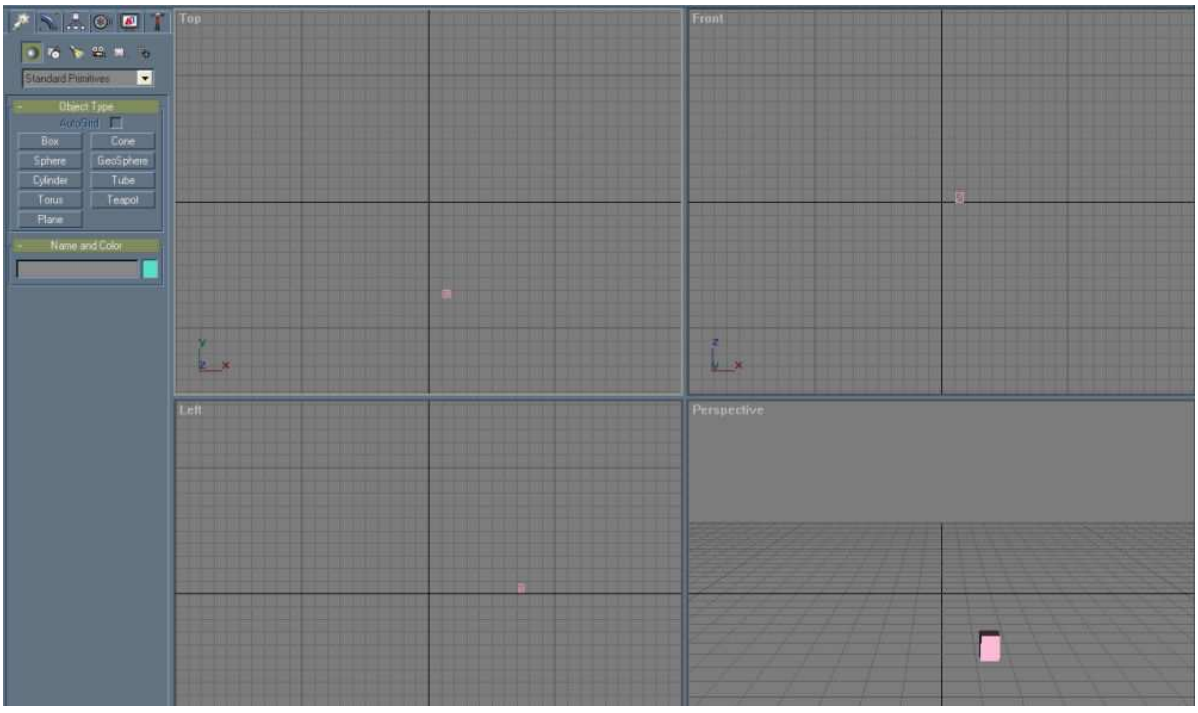
"The scene has been modified" (the mess you just made)
"Do you want to save changes?" (I don't think so)

So hit "NO"

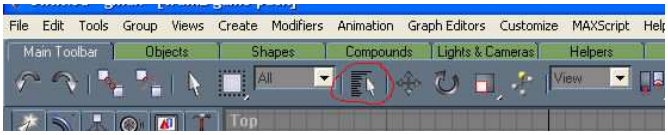
And you're back in business.

Often times you'd just hit the "undo" button, but some times things happen, from which there is no "undoing".

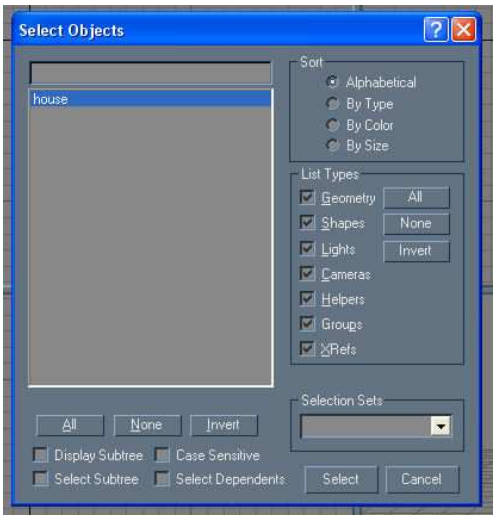
Now that we're back, notice that there is no name in the "name and color" box anymore. This is because your object is not "selected", and you cannot work with an object unless it is selected.
And if you look at your box, it's kinda tiny and hard to see, and it's plainly way off center. Let's deal with that now.



First we need to select the box. There are more ways of doing that.
On top, in the main toolbar, there's a little button, an arrow pointing to a list.
This is the "select by name" button.
Click on that.



The select menu comes up
This will list all the items you have made in this project.



Now you see why we gave our "box01" a name. Right now you only have the one box, but later down the road you will have several more, and naming them house, chimney, roof and whatever will make it a lot easier to find and select them.

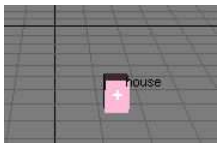
Click on "house", this will highlight it.

Then click "select".

You will notice that now your box has little white edges around it, and arrows sticking out of it.
It has been selected.

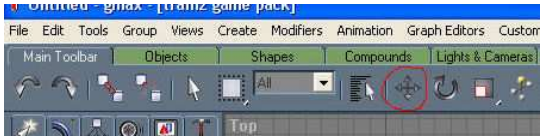
Now hit "undo", I want to show you another way of selecting

In the main toolbar there's another arrow >>
This is the "select object" button.
When you hit that one it will turn orange.
When you now move your cursor to your box, it will change to a little white solid crosshair, and the name of the object you're pointing on will show up as well.
Click on your box, and again it is selected.



Hit "undo" again, we need to use yet another method.

In the main toolbar, there's a third select button, with 4 arrows >>
This one is called "select and move".
Hit that one, it will turn orange as well.
Move your cursor onto your box and click it.
It is now selected.



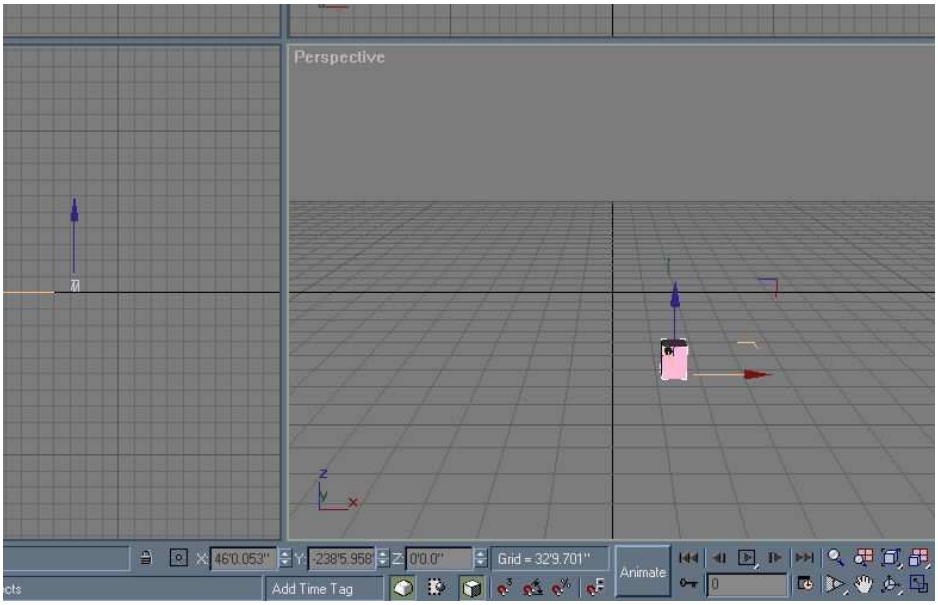
This time something slightly different happened.

The arrows from your box are colored.
They are guides for moving your box around,
but we will return to that later.

Notice the 3 little boxes below your panels,
marked **x, y and z,** with numbers in them

The numbers represent the box' position relative to the center, never mind what they are.

z is already "0" as your box is on ground level.



Now type in "0" (zero) in **x** and **y**.

As you do, you will notice your box move to the middle of the big crosshair (center) in all four panels.

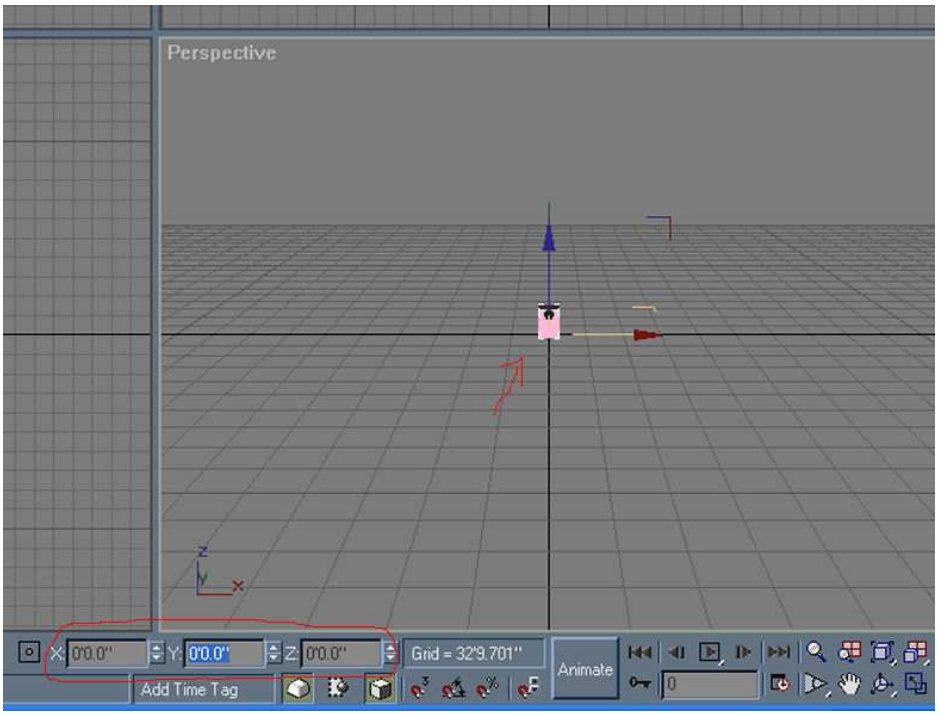
Your box is now centered.

Go to "file", and "save"

So far so good.

Now I need to introduce you to a few more buttons,

and how to maneuver aound a bit, so you can have a better look at you new box.



Turn your attention to the lower right corner of your screen.
There's are two rows of buttons here
The upper most right is "zoom extents all"
Click that and see what happens.

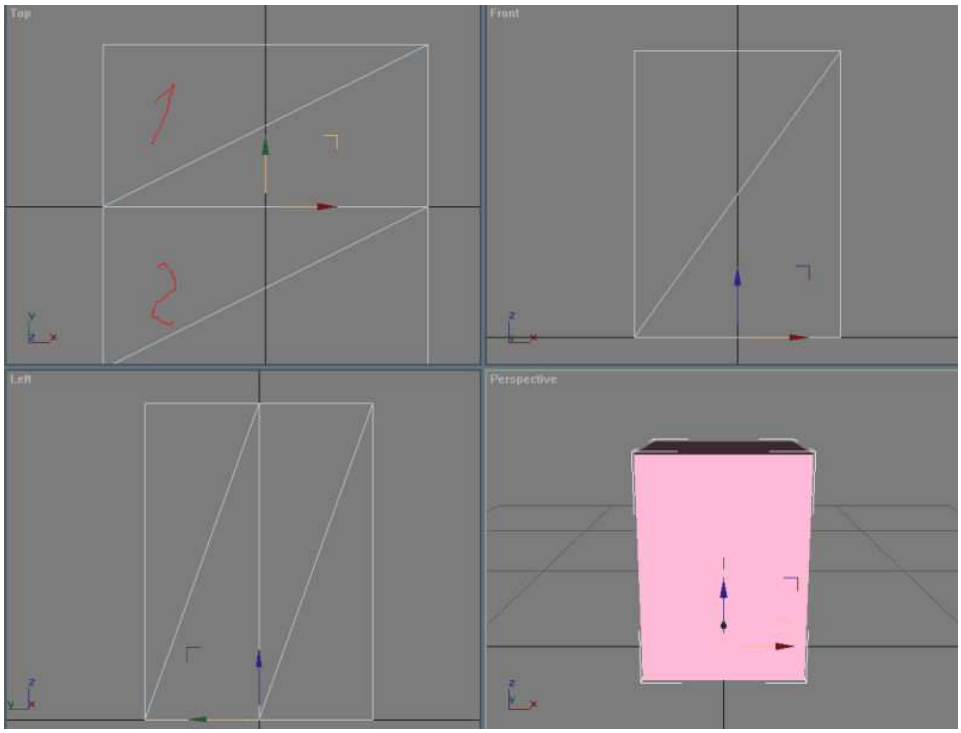
The button did exactly what it said it would.

Now you're up close and personal with your new box.

Notice in the top view, how your box seems to be divided into two parts.

Remember that I told you earlier to type "2" into the "length segs" box?

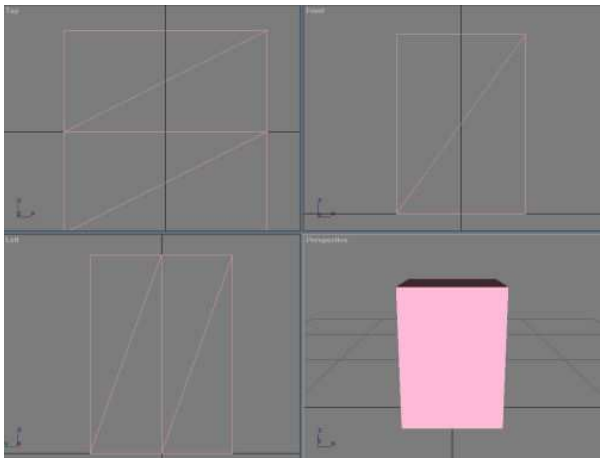
This is what you did; divided the box in two segments, so that the two parts can be dealt with individually. You will see why later.



Now we want to **de**select the box.

Click in any of the panels, but **outside** of the box.

This deselects the box. See how the arrows are gone and they all changed color?



Now Save again.

We want to play around a bit now, and we want a nice clean model to go back to later.

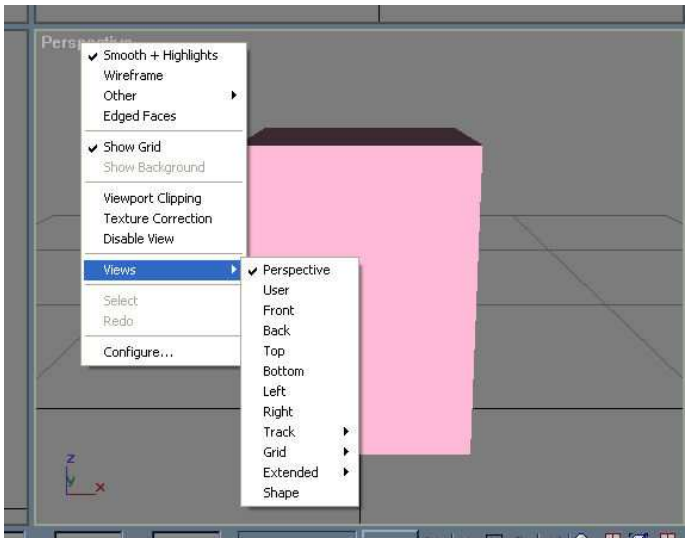
You can change the view in all of your panels.
This gets important later when you need to see different angles or areas of your box.

Lets work with the lower right panel.

When you right click on the word "perspective", you get a drop down menu.

Click on "views" and another drop down menu appears.

See how there's a tickmark by "perspective"



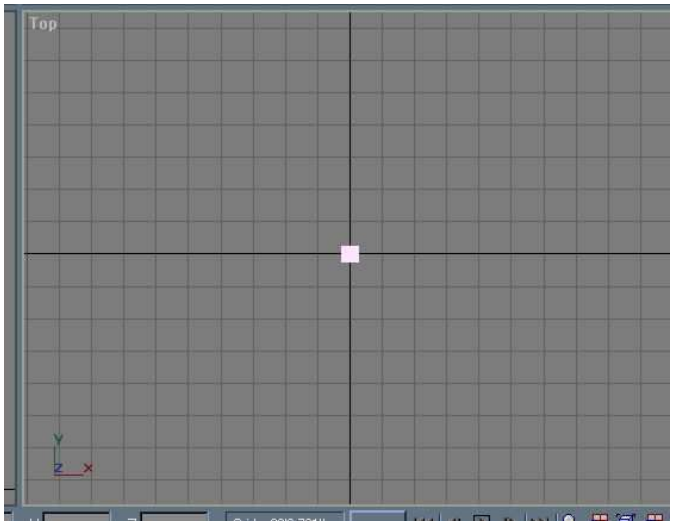
Click on "top" instead.

Now you see your box from the top

You can change the view here to see you box from whatever side you want.

But it's a bit small

Click the "select object" I showed you earlier, but don't click on the box



place your cursor somewhere over the panel,

then scroll the "scroll wheel" on your mouse back and forth, you will see the panel zooming in and out as you do.

Don't have a scroll mouse?

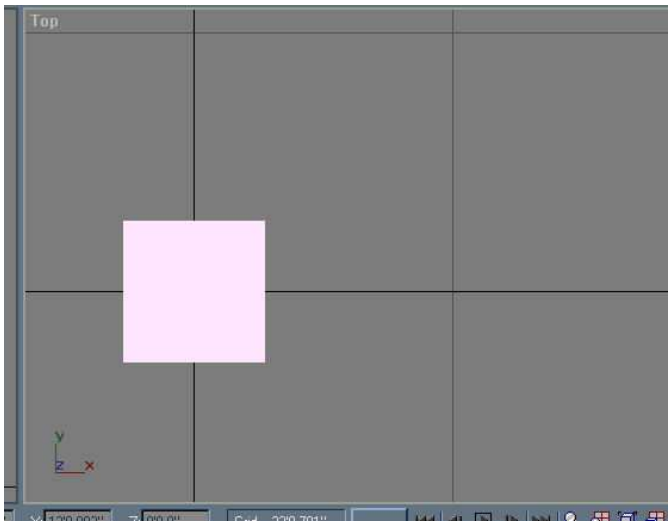
Not to worry, there's another way:

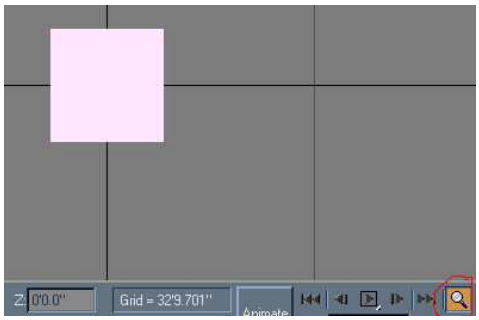
Click the little magnifying glass below,
it's called "zoom"

Put your cursor over the panel, click and hold your
left mouse button, and move your mouse up and down,

the panel will now zoom in and out as you do.

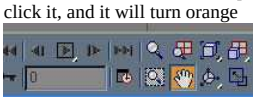
This is how you zoom, and you can do that in any panel,
and in any view.





Problem is, when you zoom in too far, the box tends to disappear
out of the panel

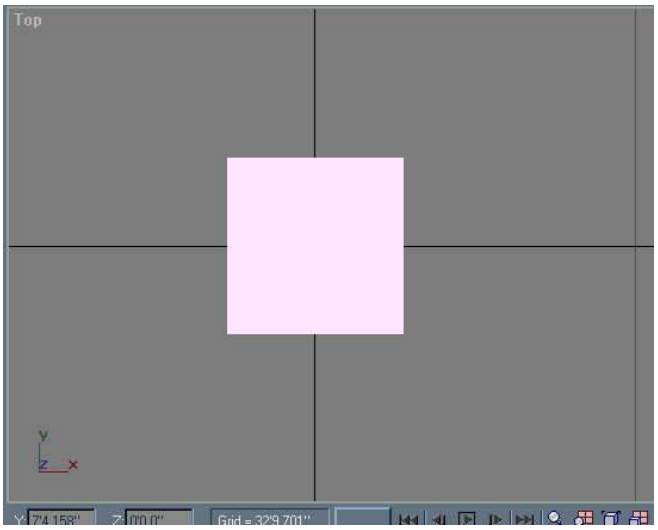
There's a tool for that too.
See the little hand, it's called "pan"
click it, and it will turn orange



Put your cursor over the panel, click and hold your
left mouse button, and move your mouse around.

As you do, you are "dragging" your panel around,
allowing you to center your box (or whatever part of it you
want to look at) in the panel again.

See how you are moving the *grid*, not the box, it's is still firmly
centered on the grid.



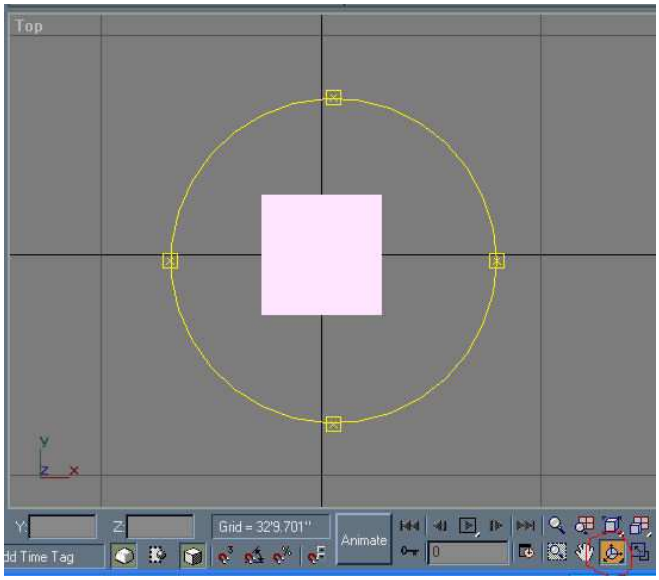
On to the next tool.

See the little sliced pizza?
That's "arc rotate"

Again, this will address the *panel*, not the box.
All these little tools in this corner will allow you to maneuver *around* your object,
so you can look at it from any possible angle, but they will *not* move the object itself.

Now Click the "arc rotate".

A nice yellow circle appears in your panel.



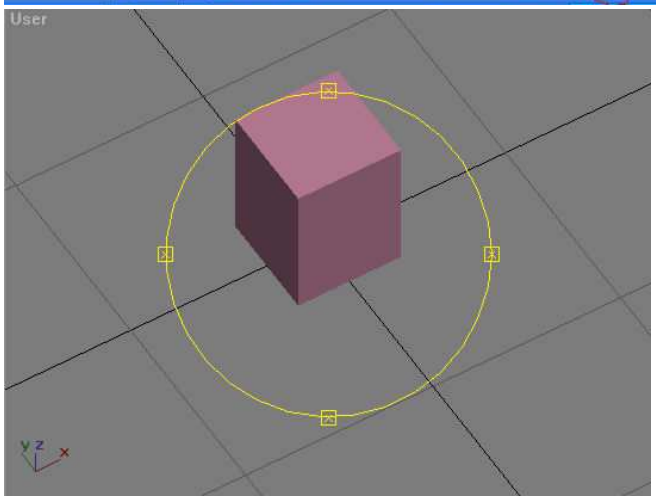
You happened to be in the lower right panel, so this is where your circle appears,
but if you click on any of the other panels, it will move there.
All the tools work in all the panels in the same way.

The circle has little points.

If you click, hold, and drag on the upper or lower points, you will rotate vertically.

If you click, hold, and drag on the left or right points, you will rotate horizontally.

If you click, hold, and drag *inside* the circle, you will rotate "freehand", in any direction.

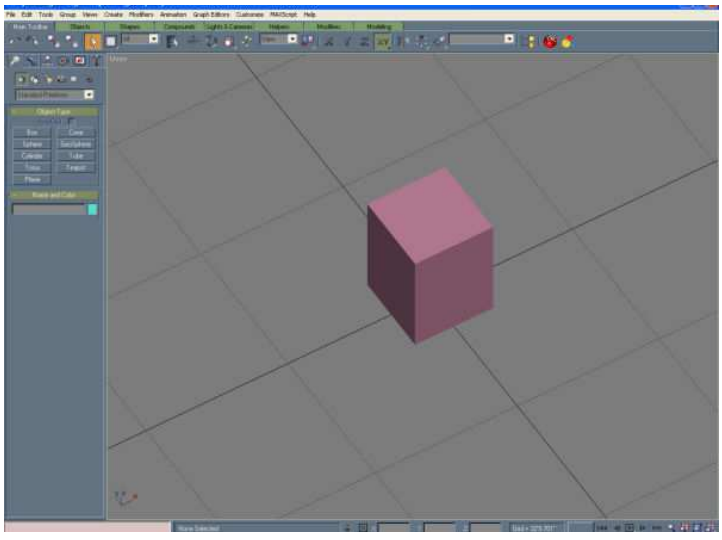


Getting much more fun now, isn't it?

The last maneuvering tool I want to show you right now
is the "min/max toggle" in the corner

When you click the toggle, the panel (that you were in)
will take up the whole screen, allowing you a bigger view.

Click it again, and you're back to 4 panels.



That's it for now. There are a few more buttons, they do much the same things,
except for all the panels at once.

Why don't you play around a bit with these, to get the hang of how to maneuver.

Now that you are familiar with this group of tools, let get back to our project.

Lets close Gmax, then reopen.
I want to start fresh and show you a couple of things.
I promise, you'll be making that house in just a moment.

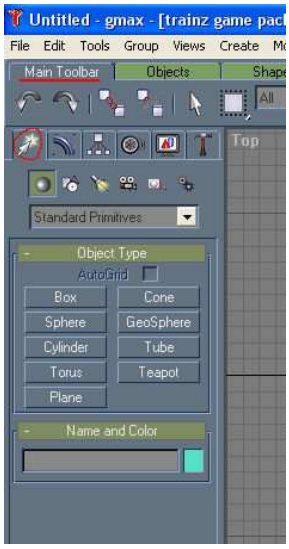
When you first open up Gmax, you should be in the Main Toolbar.

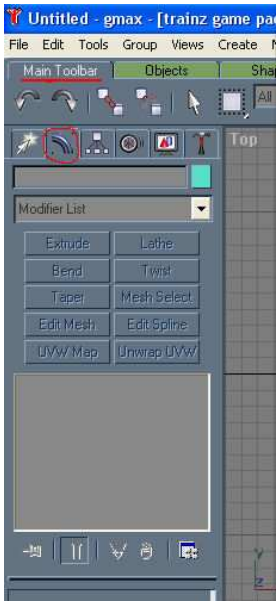
Below your friend "undo", is another row of tabs.

The first tab looks like a shiny arrow, that's the "create" tab.
This is where we first started, and this is where you go to create new things, including when you want to *add* things to your project.

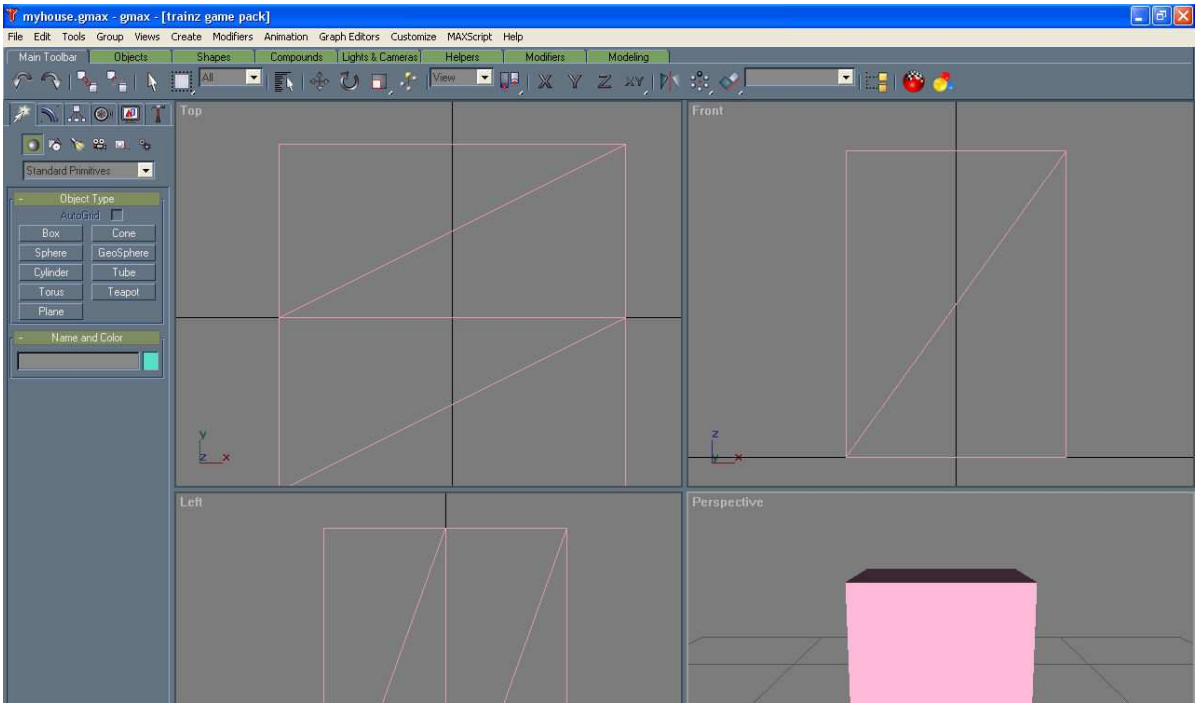
Next to that, is what looks like a bent pipe, that's the "modify" tab.
Nothing much in there at the moment, since you have no object yet.

These are the two areas we are going to be working in.





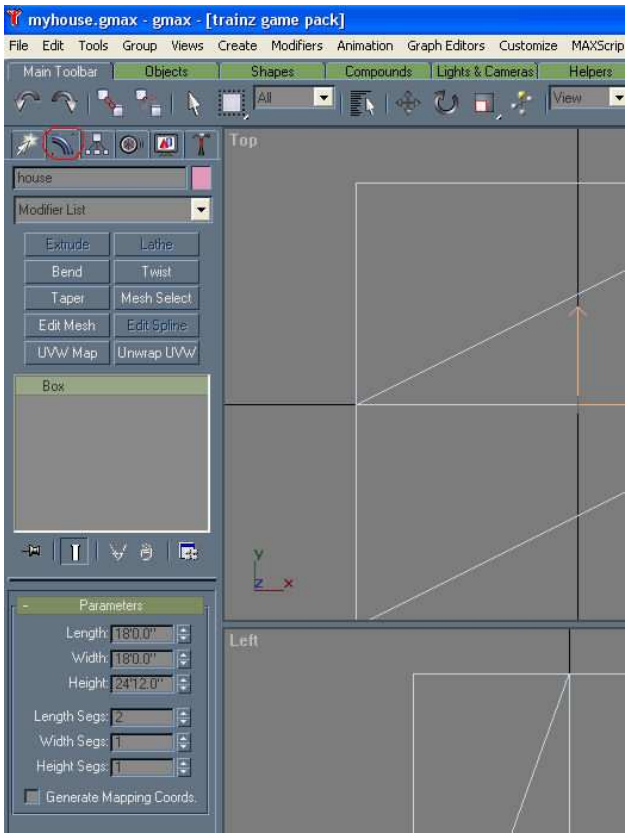
Go to "file", and pick up your "myhouse", like I showed you before. We are now back where we left off a little while ago.



Now click on your box to select it.
You may notice that you can select you box without picking a "select tool", but later you will need to use one of the select methods I showed you, to switch between tools.

If you are not already, go into the "modify" tab.

Notice that the box's name is now in the window,
some of the new buttons below "modifier list" has lit up,
and it's also showing your parameters (measurements) now.



In order to work with an object it has to be selected.

In order to change an object it has to be "editable".

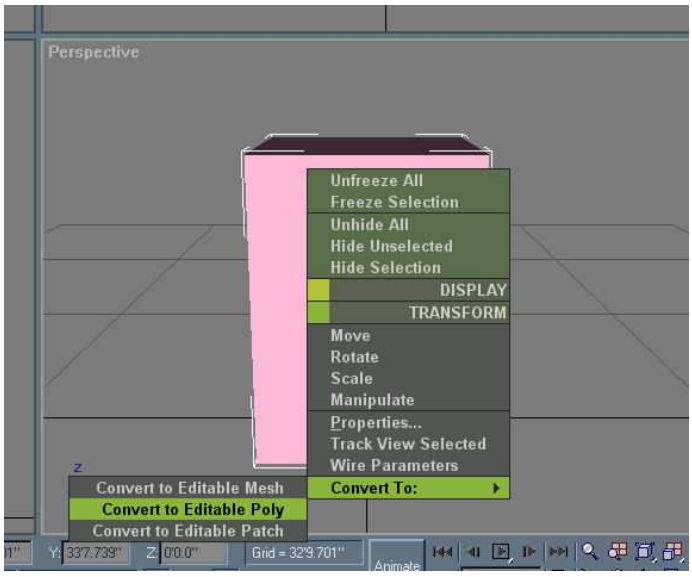
Place your cursor over the box and right click.

A new menu appears,

move your cursor down to "convert to"

and from the new menu appearing,

click "convert to editable poly"



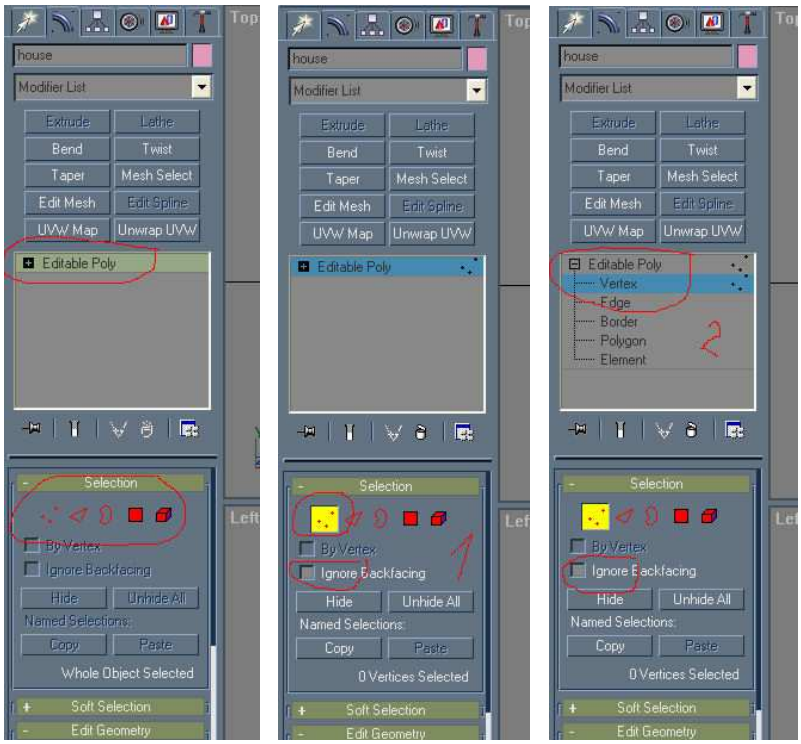
As you did that, you will notice the modifier tab area has changed.

The window below the two columns of buttons
now has "editable poly" in it with a little plus-sign in front of it.

(What develops in here is called a "stack"
but you probably don't care at the moment.)

You also have a new area below that, called "selection"

We need to change our box, and in order to do that, we need to get to our vertexes (points along the edges on our box).



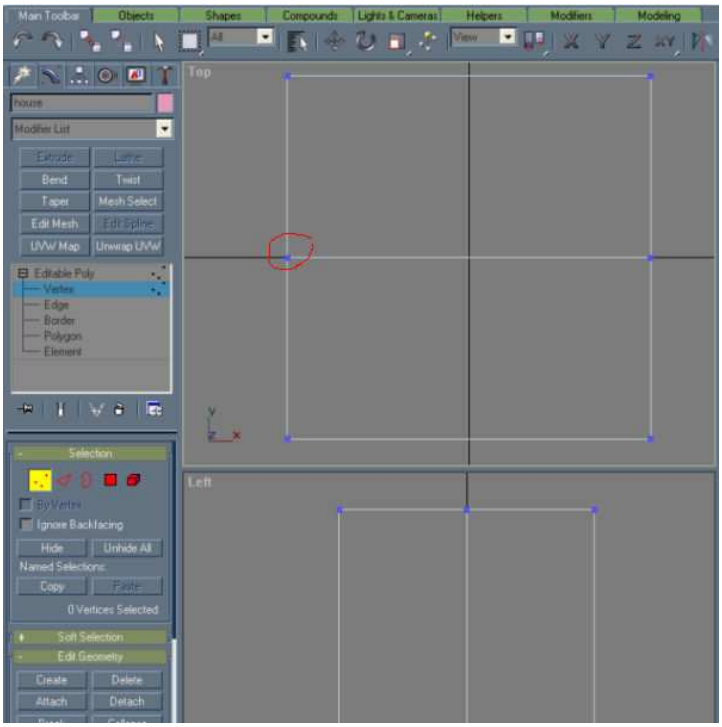
You have two options here:

1) (the faster way) click on the little button with 3 red dots
it's called "vertex"
make sure the box below it, that says "ignore backfacing",
is UNTICKED.

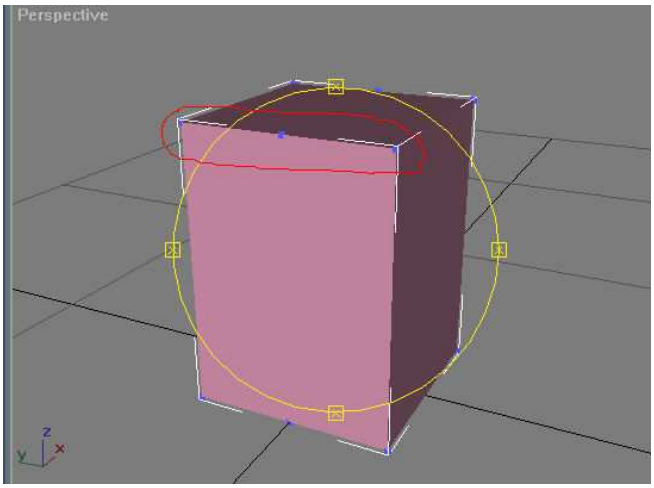
2) click the little plus-sign in front of "editable poly" in the stack
click the line that says "vertex"
again, make sure the box that says "ignore backfacing"
is UNTICKED.

You will notice as you work in Gmax, that there are always more ways of doing things.
None is more "right" than the other. As you get used to working with it, you find a "routine" and the ways that work best for you.

Whichever way you chose to do this,
you end up having all your vertexes,
the little blue dots, marked up on your box.



with the "rotate" tool, that you practiced above,
turn your box so you can see 3 vertex points
like this >>



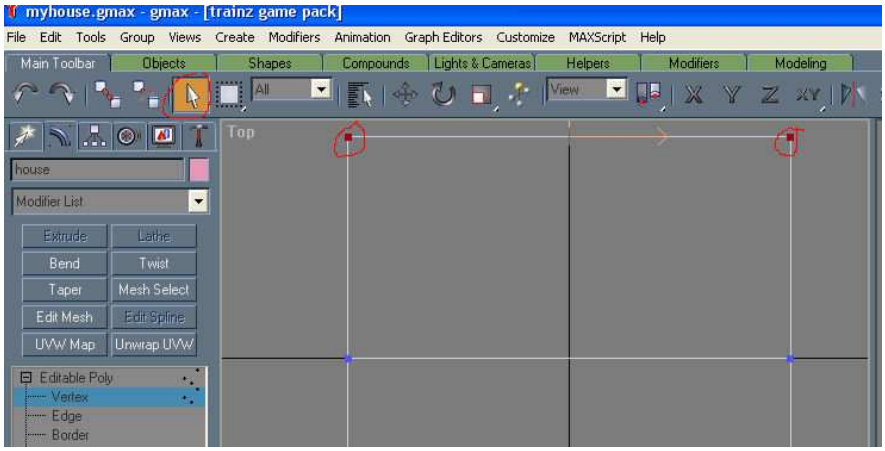
Click "select object"

In the top view panel,
click the *upper* left vertex (dot)
It turns red.

Then hold down the CTRL-key on your keyboard,
and click the *upper* right vertex.
They are now both red.

You will also notice the red dots in the perspective panel.

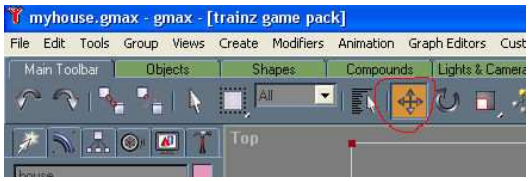
They are both selected, so whatever you do to one
of them, will happen to both.

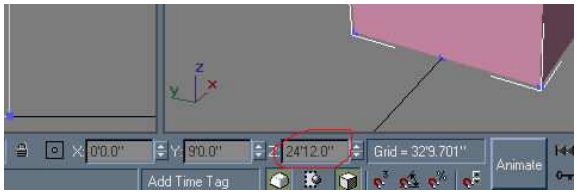


Now click "select and move"

Notice that the x,y,z boxes that were empty before,
now have the vaues of the vertexes in them.

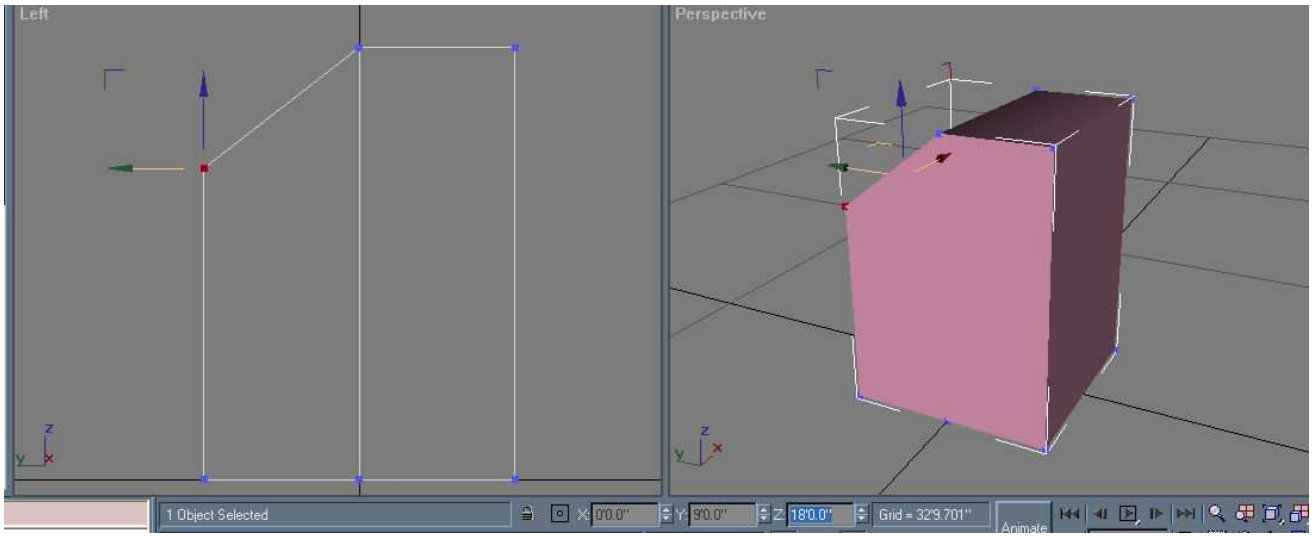
They represent the position of the vertexes.
z (height) should be 25' as you see here (or 24'12" no matter)
because that is the height of the box as you set it up earlier.





Now type "18" in the **z** box (instead of the 25), and watch what happens.

The 2 vertexes dropped to 18', taking the entire back side with them in the process. You see where we are going now?

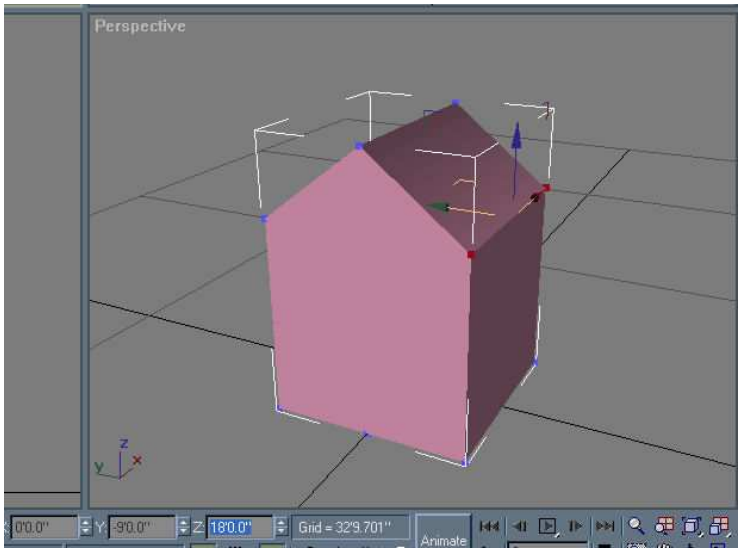


Now we need to do the same thing with the other side.

Again click "select object"

In the top view panel,
click the *lower* left vertex (dot)
It turns red.

Then hold down the CTRL-key on your keyboard,
and click the *lower* right vertex.
They are now both red.



click "select and move"

again, type "18" in the **z** box (instead of the 25)

Now you have the baic shape of a house.

Make sure you SAVE it now.

I could have started you out with an 18' high box, then have you raise the middle vertexes to 25', that would have been faster, and you'd end up with the exact same house shape, you see?
But I wanted to make sure you did this twice. By now you should have a general understanding of how to make a box, how to enter the size, and how to alter it's shape to fit your needs.

But, we are not done yet.

Click on the "vertex" box, it will go grey again, and all the dots disappear.

Then click on "select object", click on any panel *outside* your box, and the house is deselected.

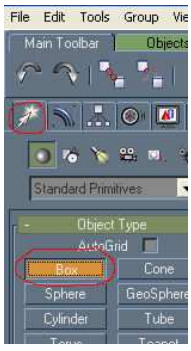
We are not going to get fancy here, but I want to show you how to make more elements and combine them, so lets add a little chimney to our house.

Go back to the "create" tab

Click on the "box" button

Now we want to make another little box, just like you did with the house.

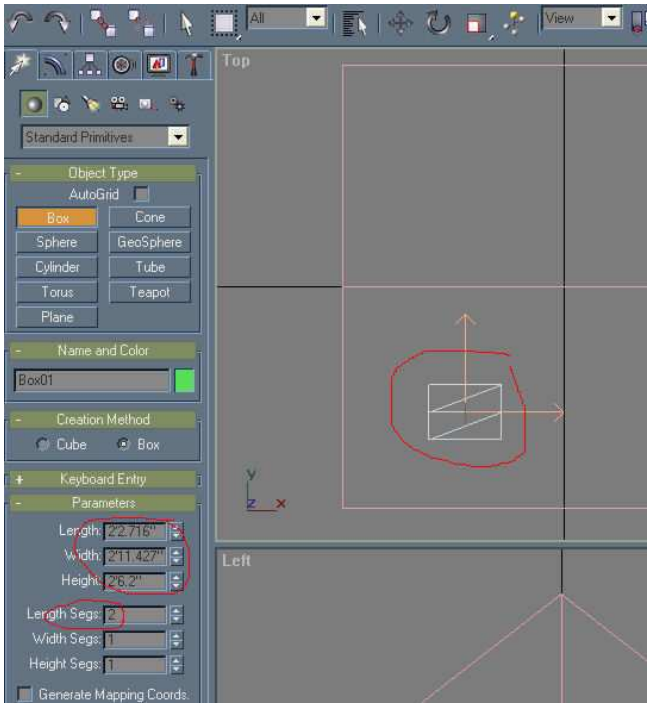
Yes, your "house" is still in the panels, just ignore it for now.



Place your cursor in the top view panel, and make a new little box exactly like you started out making the house.

Again you see how the values for the box are entered in the parameters

Also notice that the "length segs" is still set to 2, because you used that the last time.



Now we want to alter those values, like we did for the first box.

type "chimney" in the name (right over the Box01)

enter:

Length: 2'

Width: 2'

Height: 3'

Length Segs: 1

Notice how the box changed shape, and it's not segmented any more (split in two parts).

Also notice that in the perspective panel, you can't see it, it's hidden inside house.

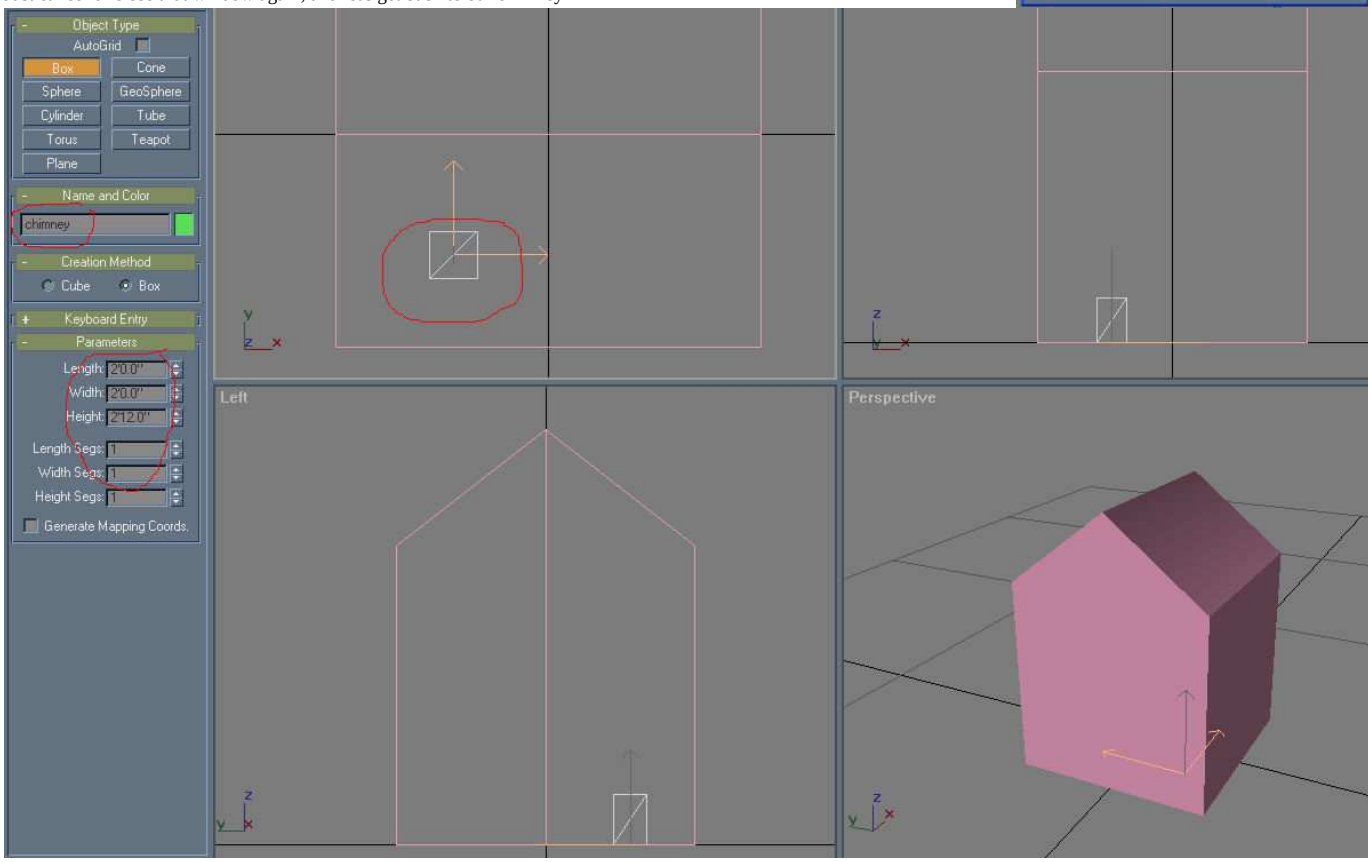
This is where the multi-panel setup comes in handy, you can always see how an object is placed relative to other objects

This is also where the naming part comes in. Insted of having a "box1" and a "box2, you have a "house" and a "chimney". I'm sure you can imagine, that when you have a more complex project going, it's hard to remember which box is what.

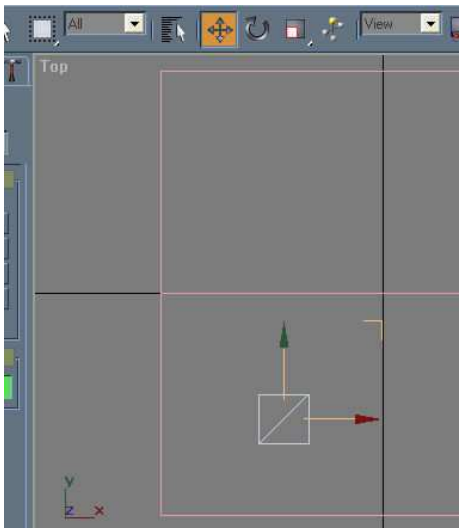
Now if you'd click on your "select by name" button

you will see that your list now contains both "chimney" (currently selected) and "house", making selection very easy >>>>

Just cancel or close that window again, and let's get back to our chimney



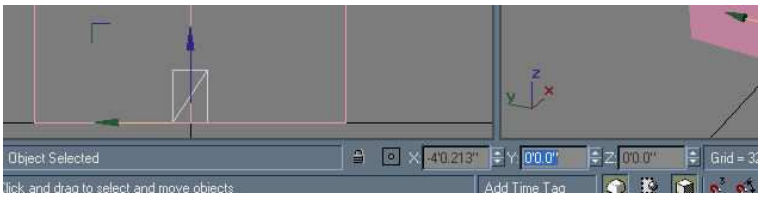
It would probably be a good idea to have the chimney somewhere up on the roof, not on the ground.



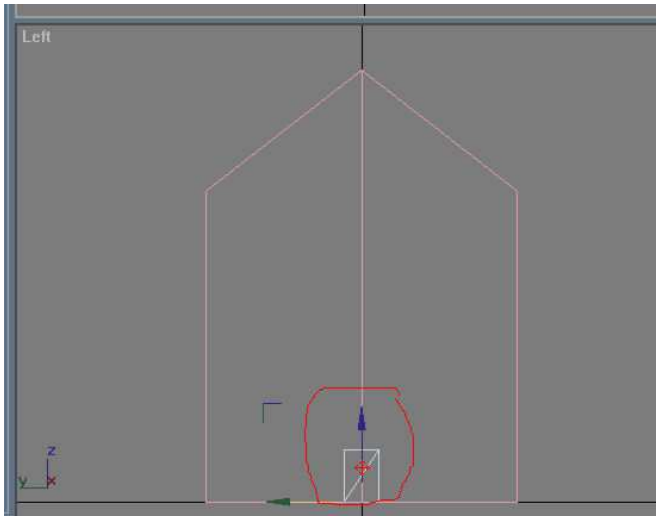
click "select and move"
now you see the colored arrows again.

and you see the position of your chimney below:

type "0" in **y**
and watch the chimney move to the centerline right under the picth of the roof, which is where we want it to be



This is where we start using those colored arrows.



In left panel view, place your cursor over the blue arrow
somewhat below the head

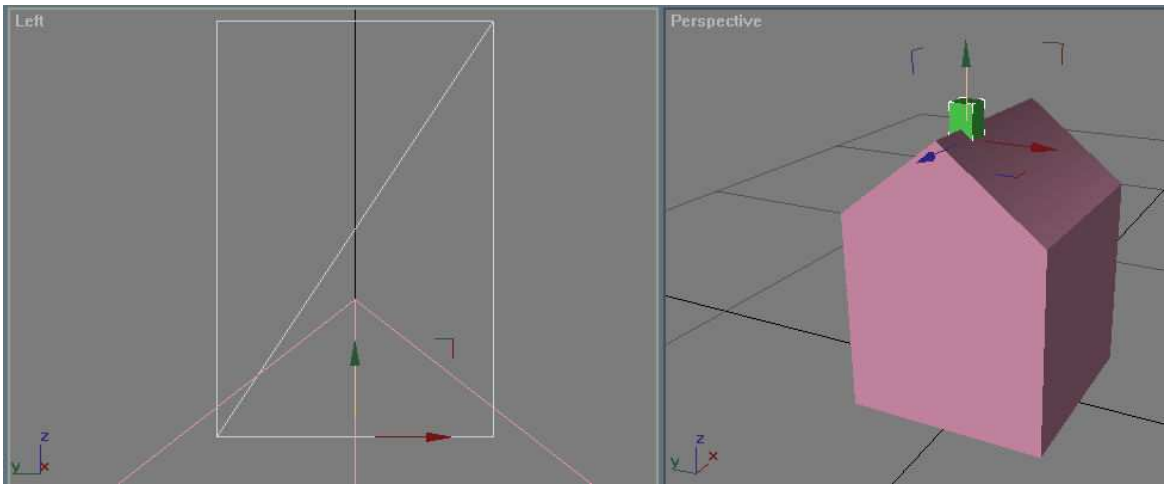
You will see, that when you have your cursor over a point that you can move,
it will change to a 4-headed-arrow, just like the icon on the "select and move"

Click and hold your left mouse button and drag the chimney upwards
Since you are on the vertical arrow, you can only go in the direction up/down,
it's not going anywhere else (by the way, when you click on it, the arrow changes
color, just ignore that.)

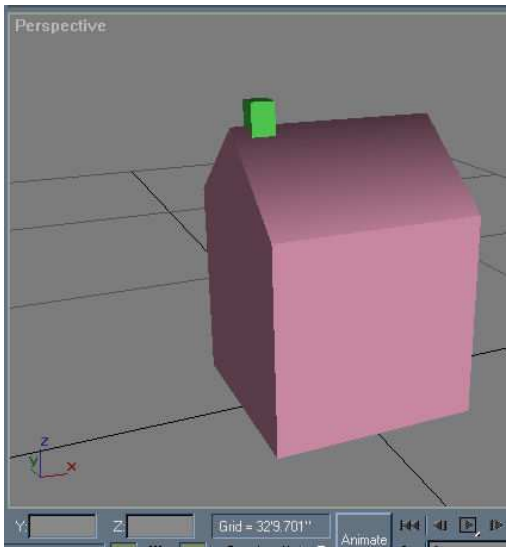
As you get closer to the top of the roof, you will need to zoom in (scroll on the mouse)
and drag your panel (the little hand) so you can see close up what you are doing.

Whenever you click the little hand to drag your panel (or any other tool), your object
is deselected, so once you have your view positioned as you want, you will have to
click "select and move" again to get back to the moving business.

So, move, zoom, drag and move again, until you have the chimney on top of the roof, like you see below:



In exactly the same way, you can move the chimney sideways on the roof to where you like it to be, you'd use a horizontal arrow for that.



Just move it around till you get used to how that's done.
Don't worry about hitting the wrong arrow, that's what your friend "undo" is for.
Put it where you like, just make sure it's still on the centerline of the roof .

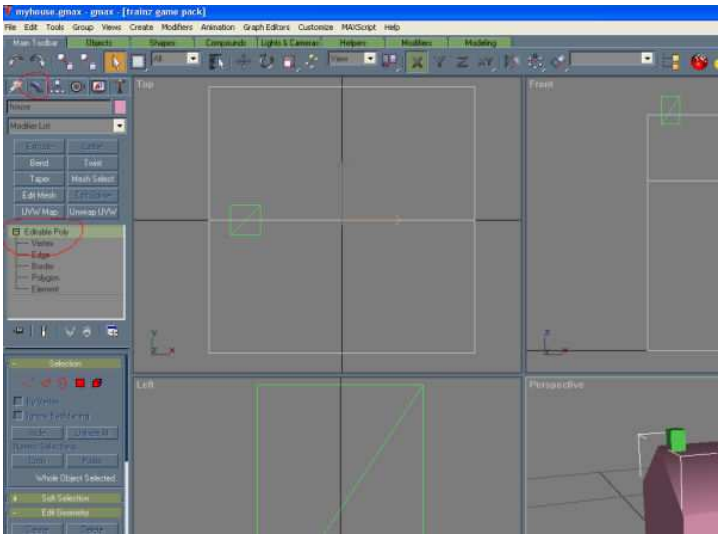
When you've placed the chimney, click "select object" and click *outside* your house, and everything is deselected.

Now SAVE again.

Looks like a house, doesn't it?

Except for the color maybe. Time to call in the painter.

First we want to work on the "house" part.



Click on "select by name" (the list, remember),
then click on "house", then "select"

If you are not already in the "modify" tab, go there now.

Notice that "house" is still an "editable poly" (remember that you changed that?) , this means that we can work with it and change it.

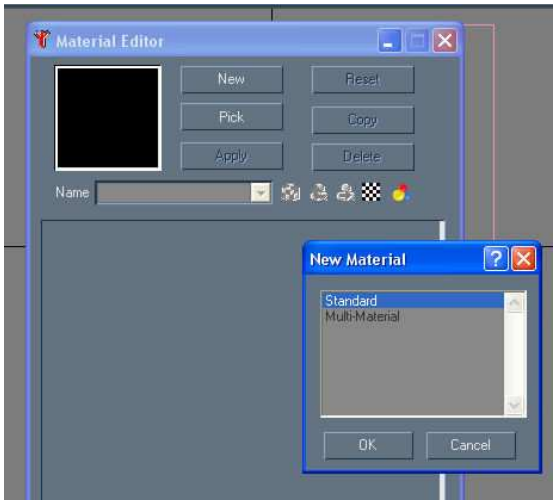
Now we get to wrap a skin around the house (mapping the texture).

To me, this is the most foreign concept. And a rather slow process as well.
But it's not difficult, and as you practice you'll get faster.

First we have to tell Gmax which skin we want to use (texture file). Remember the file you downloaded, that's the one.

See that red ball with some checkers on it to the far right on the Main Toolbar? That's the "material editor". Click on that.

When "material editor" pops up,



click on "new",

then in the new window,

click on "standard"

and hit "OK"

Material Editor now shows a big grey ball in the upper left corner,

and a few more menues below

at the bottom of the editor, there's a little plus in front of "maps"

click on the plus

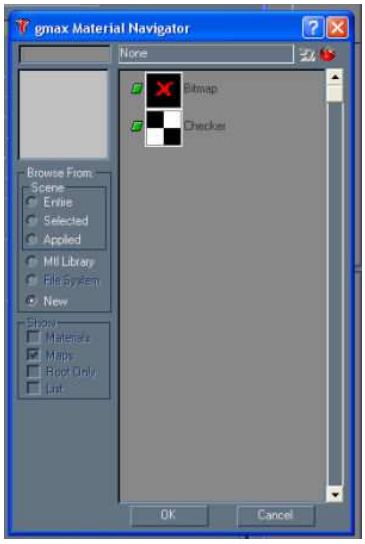
when "maps" is opened

to the right of "diffuse color" there's a button "none"

click on that

This brings up the Material Navigator

Click on the big black box to the left of "bitmap"

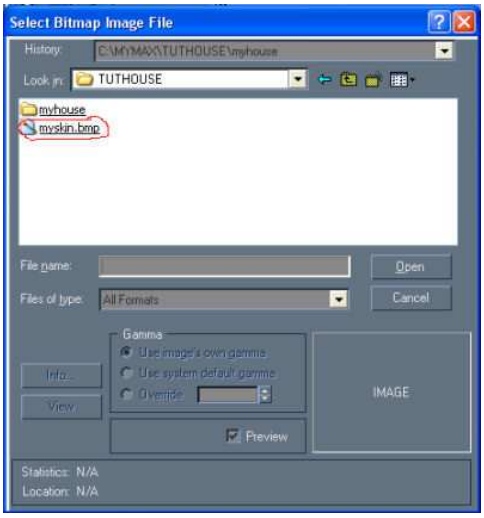


That brings up a window already in your "myhouse" folder,

if you go "one up", you'll be in "TUTHOUSE"
where you see your "myskin.bmp"

double click on the file

(I messed up a bit in this folder business, not what I had in mind. Don't worry about that. I just wanted you to have a "clean" folder where only the things we make right now is in.
Where ever you have your "myskin.bmp" you can just navigate to it and select it. It does not matter to Gmax where it is.)



That brings your texture file right into Material Navigator

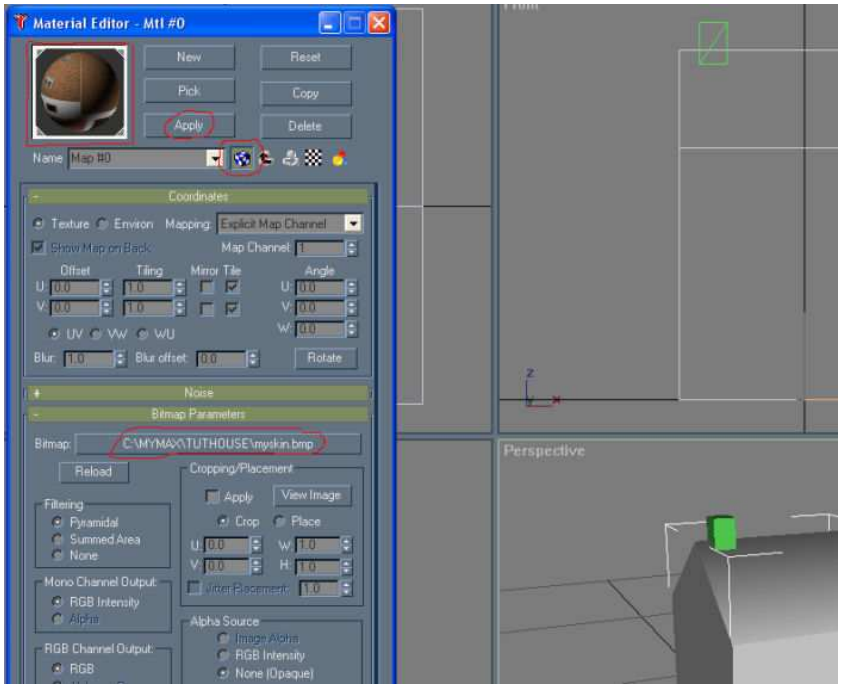
You can see the texture wrapped around the grey ball,

and you can also see the file listed just below
the "bitmap parameters"

Click "apply"
your house is turning dark grey

Click on the little blue and white box,
that's "show map in viewport"
now the house turns a lighter grey

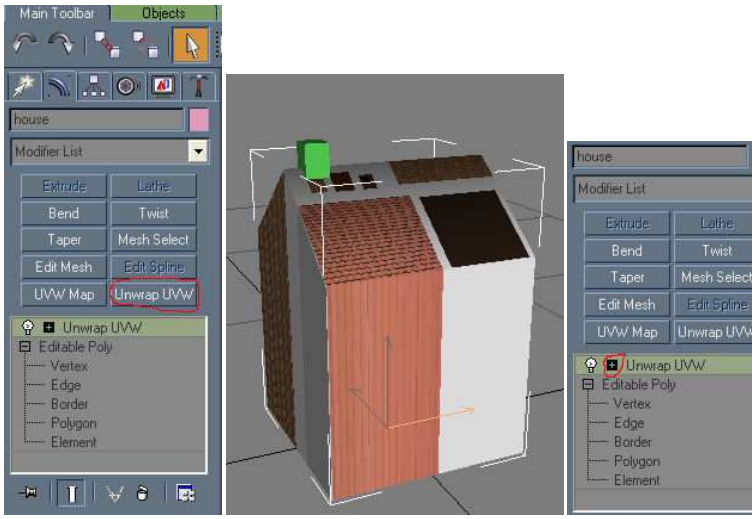
Close the Material Editor
(just click the red x)



You have now told Gmax, that you want to work on
"house"' and which texture to use.

In the 'modify" tab, click the "unwrap UVW" button

and suddenly your texture is wrapped around the whole house



you'll notice a new line appeared in the window below
(in the 'stack') called "unwrap UVW"

click the plus-sign in front of "unwrap UVW"

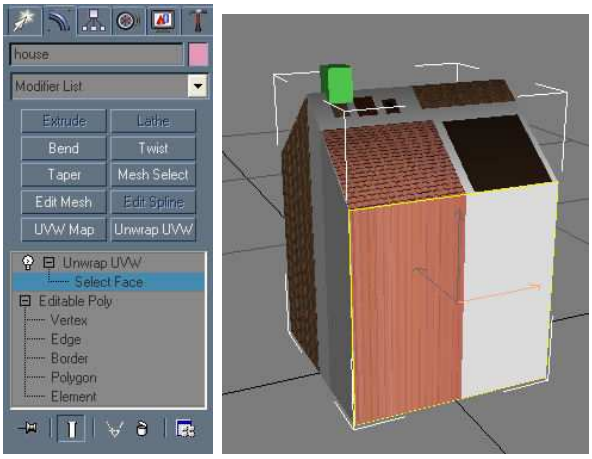
a new line appears in the stack, "select face"

click it, and it will highlight in blue

you now have the option to select a "face"
(which is a surface on your object)

click on the front of the house
(I decided that the part facing this way was the front)

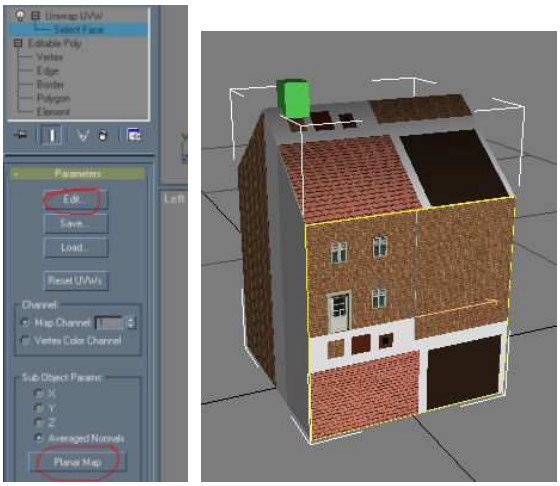
See how the area (the face) is rimmed in yellow?
That is how you can tell what area you are working with.
You will see the same face in yellow in the other panels.



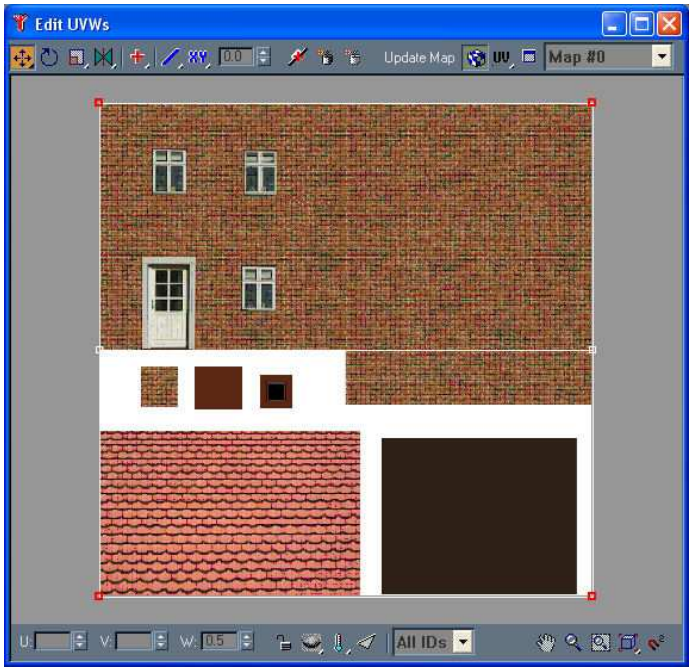
now at the bottom of the modify tab,
click "planar map"
(this tells Gmax that we are working on a flat surface)

now you see that the entire texture is applied to that one face

then click "edit"



This brings up the UVW Editor



This is an entirely new animal,
so I need to introduce you to a whole new set of tools,
that are available to you in here.

Let me start off by telling you that your friend "undo"
followed you in here. As long as you can see "undo" in the main
Gmax window, you can click it, and it will work in here as well.

Also, if you really mess up in here, you can always close this window (red x)
then click "edit" to open it up again, to start anew.

See those little red points
in each corner of the map?

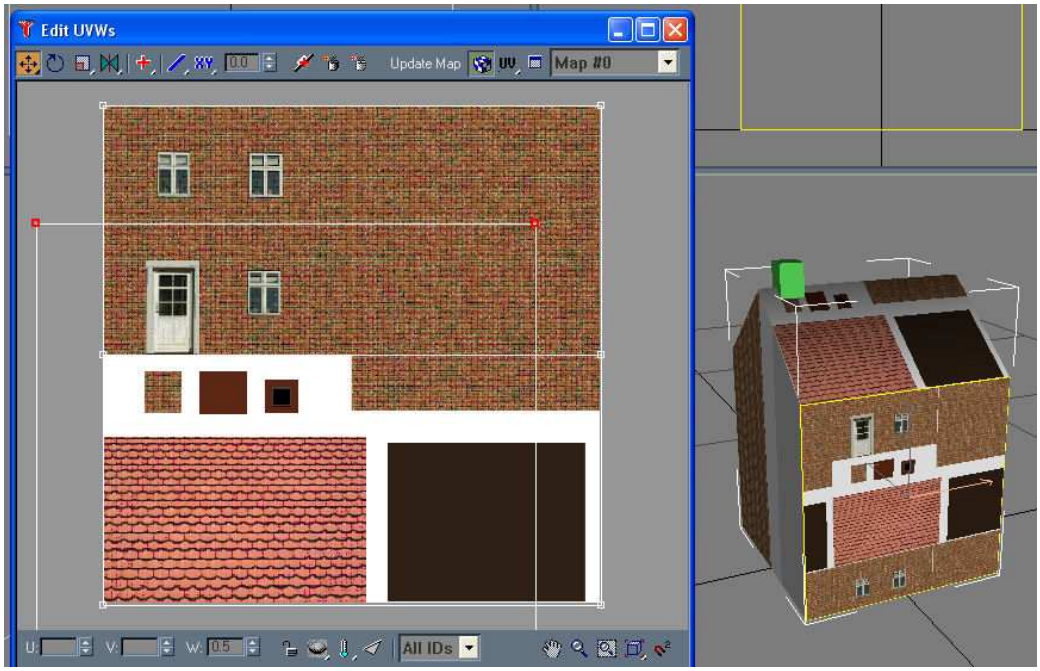
They guide and resize the selection area

In this case you have 4 points, making up
a rectangle. All 4 points are red, they are
supposed to be, in order for you to move
or scale the entire rectangle.

Place your cursor on one of them,
left click and *hold*, and while holding,
drag the selection area around,
and watch what happens on your house

Whatever is inside the selection area,
is what's going on the face you selected.

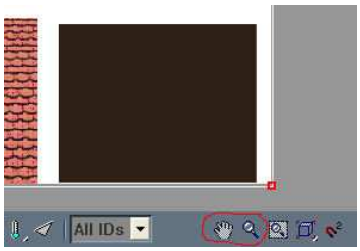
See how there are some more white
lines and points in there, other than
the rectangle you are currently working
with (and is marked in red)?
They can be in the way, and confusing,
but you can remove them with a filter,
I will tell you about that in a moment.)



In the lower right corner are a couple of tools you should recognize.

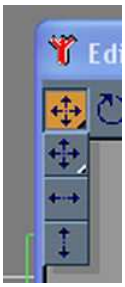
That's right, zoom and drag works exactly like in the main Gmax window
(including zooming with the scroll button on your mouse),

so you zoom and drag in here just like you did on the panels,
when you need to change your *view* of things



In the upper left corner are some new tools.

I will show you the ones you need for this exercise.



This is "move"

When you click and *hold*, more buttons appear.
You can choose to move anywhere,
only horizontal, or only vertical.

You already tried one, so you know how to move.

Click on each, and try them out to see
how that works.

This is "scale"

Again you have 3 buttons to choose from.

When you click and *hold* on a red point, then drag the mouse,
it will scale the area up or down.

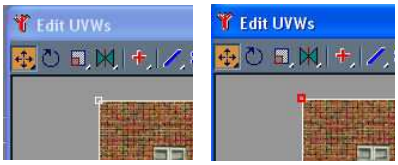
Depending on which button you use, it will scale in all directions at once,
only horizontally, or only vertically.

Try each of them to see how that goes.

There is another *very useful* tool at the bottom, called "filter selected faces". It's the little white triangle, and when you click it, it turns red.
When you first open this edit window, there will be more lines and points in there, other than the one you are currently using.
Clicking this button will make them go away, and makes it easier for you to select points, should you need to.

That brings me to "how to select a point".
If you are in "move" mode, and accidently click somewhere other than on a point, all your points will be deselected (they will turn white).
Don't panic. Click on a point, that will select it again, then hold down the CTRL-key and click on each of the other points, till they are all red again.

"undo" would also do the trick in most cases.

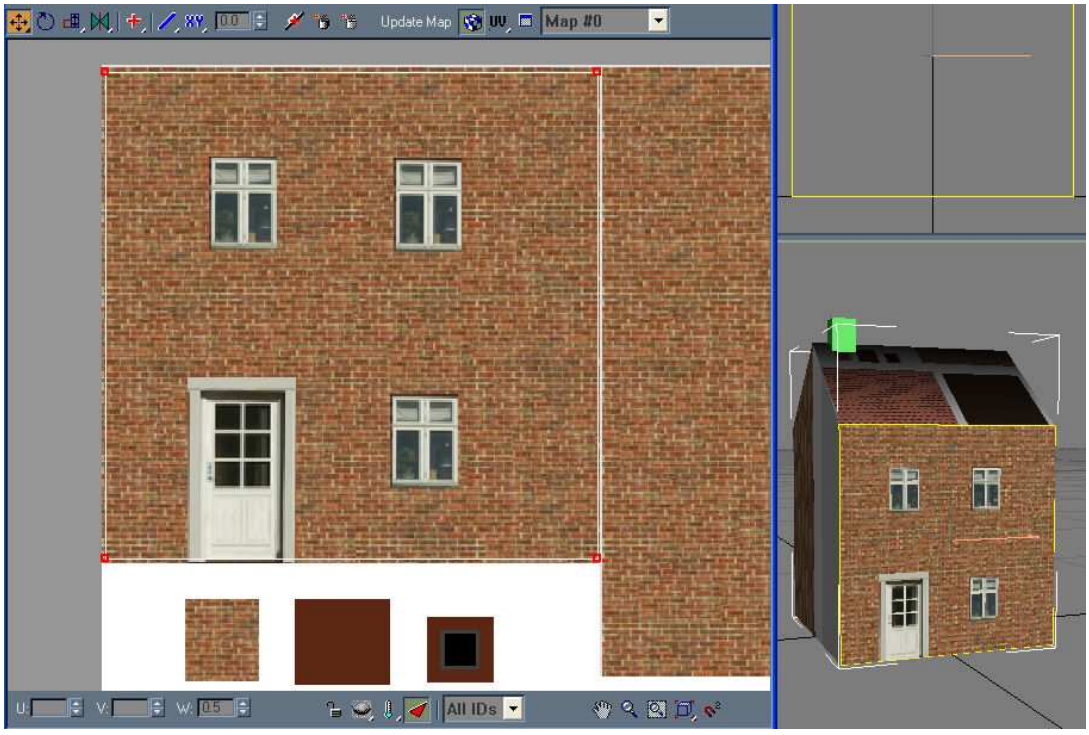


Now that you know how to move around in here, and how to move and scale your selection area, lets get on whith mapping.

Use move and scale to position the selection area like on this picture below (use zoom and drag to get a closer look at what you're doing)
As you move it around, you can see the face (front) of the house is now covered with exactly the area we want.

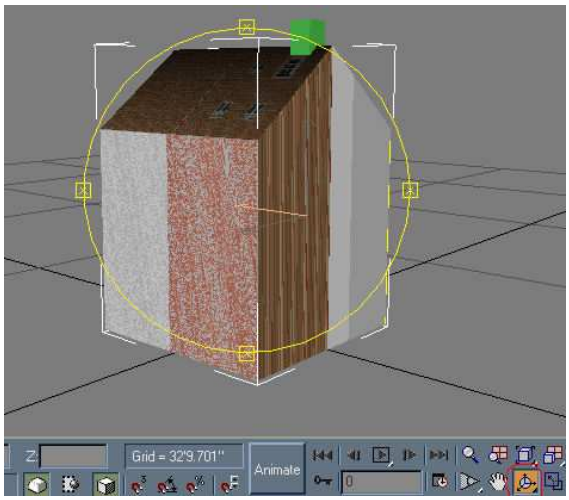
I should mention, that you need to take care how you position your rectangle (selection area). If you go too close to the outside of the area, you might get white lines or areas on your model. On the other hand, you don't want to "loose" too much of your picture. It takes a little practice to get it right.
For this exercise we don't have to be too careful though.

This is worth to keep in mind as well, when you go to make your own skin. When you make a patch for an area on your model (like the patch for he front of he house here), you need to be aware that you will loose a few pixels on all sides in the mapping process. The door in the picture below, for instance, might have been a pixel or two higher up, to ensure that you can get the whole door on your model. See what I mean? This is an art, and it takes practice both here in Gmax, and in your imaging software, to get it just right.



That's it for the front. Just close the editor.

You do not save anything inside the editor, but DO save your file once you're out. Save everytime you've done a face, you don't want to have to do it again.



Now rotate your house, so you can see the back side.

Once you used the rotate tool, you have to click "select object" again, to be able to select a new face.

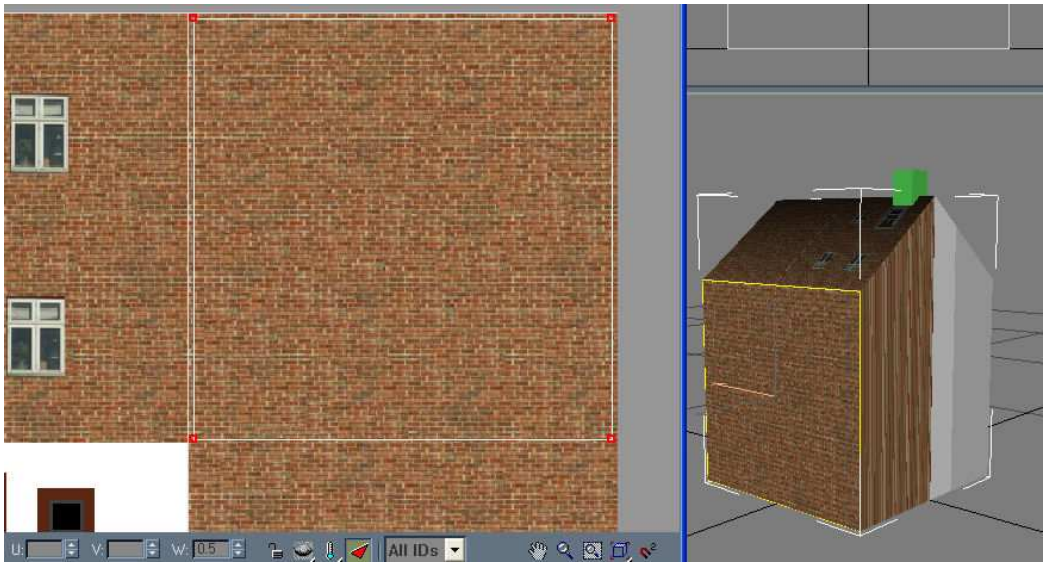
This time click on the back side of the house, and as before, you will see it get a yellow rim.

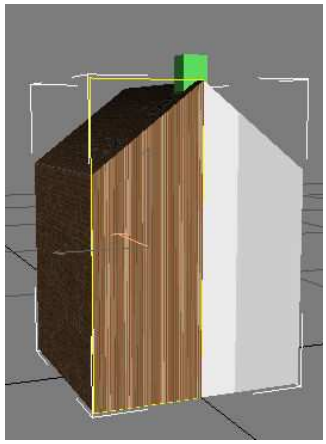
Again, click "planar map"

then click "edit"

Repeat the same process for the back of the house, as you did for the front of the house. You can pick the same area if you'd like to have door and windows here as well, or you can pick an area of the same size (so the bricks don't get distorted) from the "brick only" area. Whatever makes you happy.

When done, close the editor, and save the file.





Next we want to move to the side.

Here comes something new.

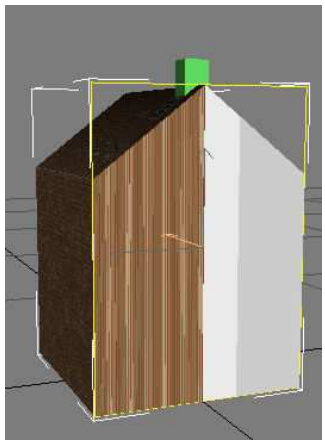
Remember how you segmented the box in 2, length-wise, so that you could change the roof line?

Well, that means that the side of the house will have 2 faces, not 1.
When you click on the side to select it, only one side of it will go yellow.

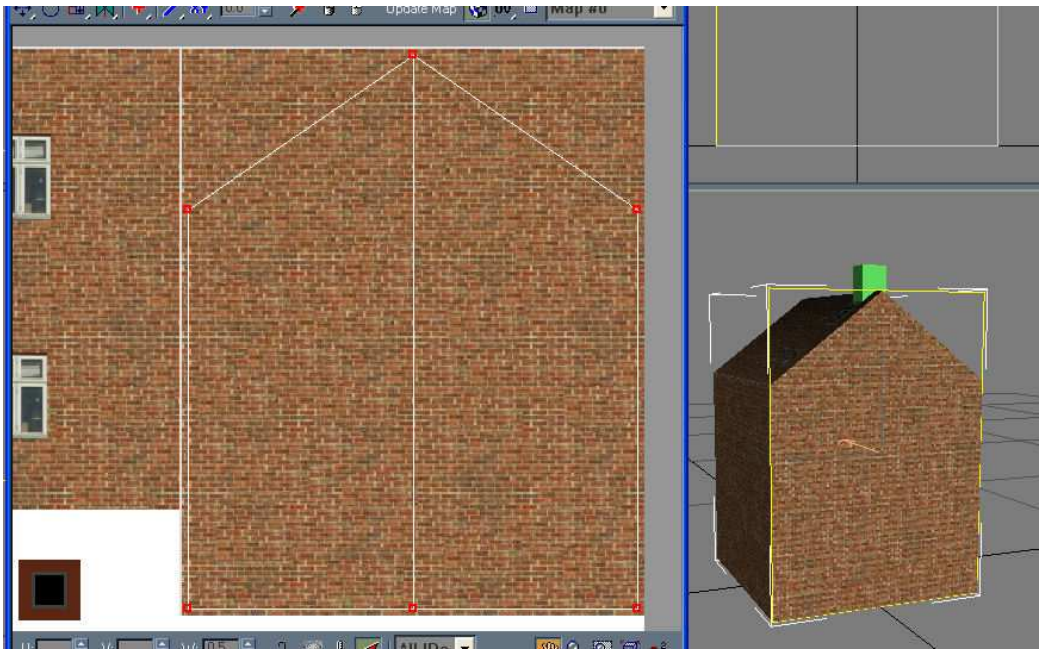
No fear, you don't have to do these individually.
Just hold down the CTRL-key and then click on the other side as well.

Now both halves are selected, and you can "wrap" them as one face.

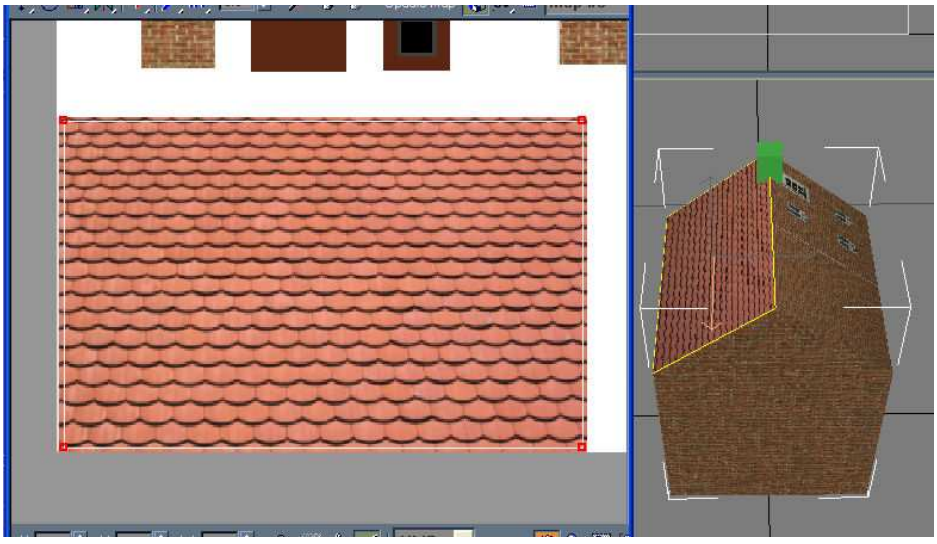
Again, click "planar map" and "edit" and repeat the process.



This time, when you open the editor, you will have 6 points instead of 4, isn't that nice. The exact same shape as your side.
This is also why the right piece of brick is taller, to cover the sides.
Place it as you see here, and you're done. Exit and Save.
Then repeat for the other side as well.

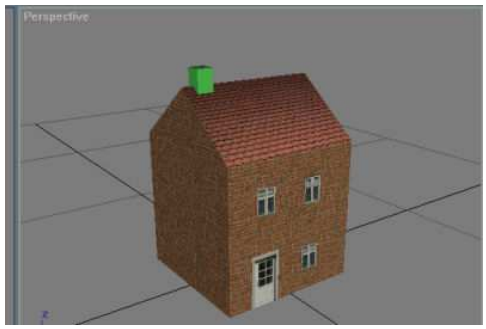


Now on to the roof.
Same procedure: select face, planar map, edit, pick your area (roof this time), exit and save.
Then repeat for the other side of the roof.



That's it for the house.

Look pretty nice by now, don't you think?



Except for the chimney,
let's do that one now.

First we need to tell Gmax what we want to work on now.

Click "select by name", click on "chimney", click "select".

It picked the chimney alright, but there's not much going on in the modifier tab.

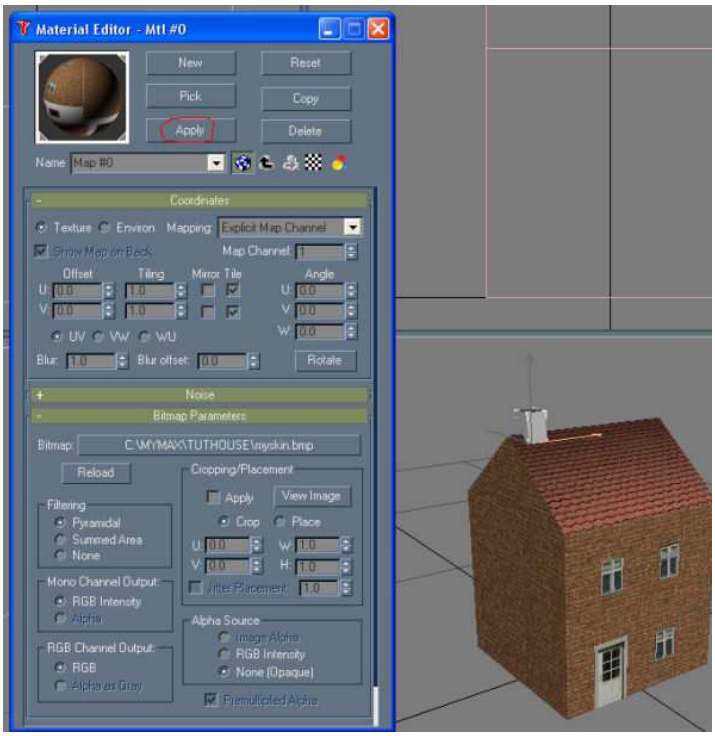
Remember that you had to change your "house" part to "editable poly" to be able to change it?
You have to do that for the chimney as well.

Place your cursor over the chimney and right click.
move your cursor down to "convert to"
and from the new menu appearing,
click "convert to editable poly"

And, just like you did for "house", you have to tell Gmax which map you want to use.

This time when you click on "material editor" (little red ball in Main Toolbar),
it already has your map in there, all you need to do is click "apply"
and watch your chimney go grey.

Then close the material editor.



In the modifier tab, click the "unwrap UVW" button

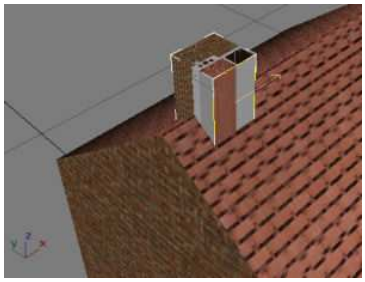
click the plus-sign next to "unwrap UVW" in the stack

click "select face" to highlight it.

You are now back to the familiar wrapping process,
that you just did 6 times for the house.

Zoom, drag, and rotate to get a good view at your chimney.

Then pick a face and you're ready to skin it like you did the house.



For the chimney sides, use the smaller patch of bricks,
that way they are in scale with the bricks on the building.

For the top of the chimney, use this little patch
Gives the illusion of an actual hole in the chimney.

And do remember to save often.

That's all. You've got a house.

A very simple house, but a house nonetheless.

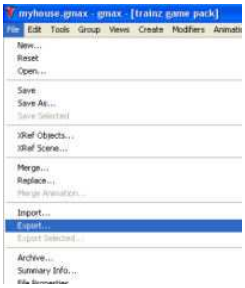
Make sure nothing is selected now.
(click "create", "select" and click outside the house.)

Then SAVE.

Now you just need to make it into something that Trainz can understand.

Go to "file",

then click "export"



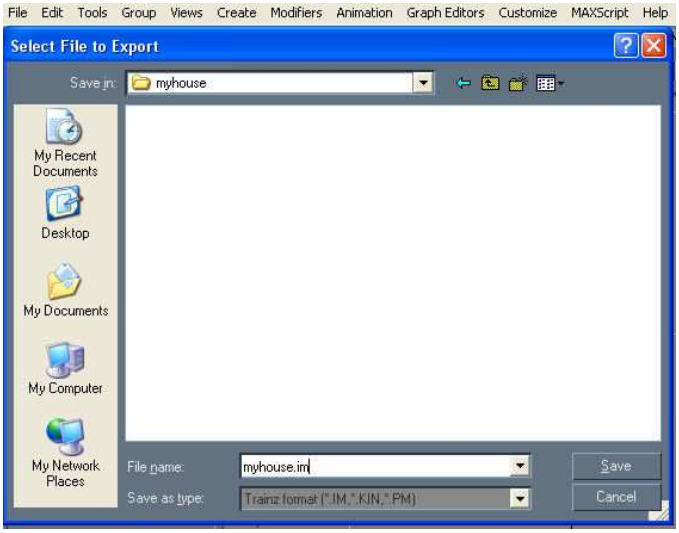
(Must mention, that it is very important that
nothing is selected when you go to export.
If it is, nothing will be exported.)

In the export window, find the folder you created earlier

C:/MYMAX/TUTHOUSE/myhouse/

in file name, type "myhouse.im"

and SAVE



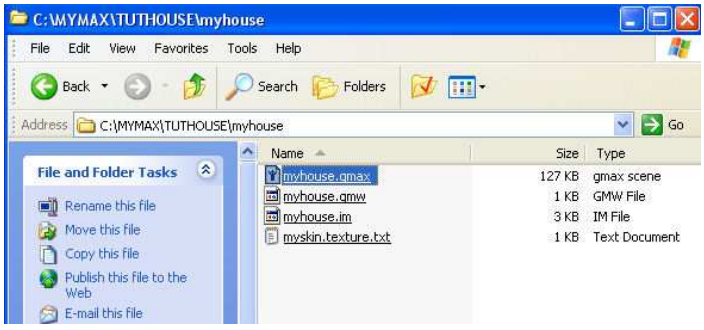
You're done!

Exit Gmax.

If you open the folder you created now,

you will see that Gmax just created 3 new files for you,

2 of which (the .im file and the .txt file) we are going to use in the next chapter.



This is just the first steps on what I imagine is a long road to master this program, but it's a start.
Practice this a few times more, till you get the hang of doing things in Gmax without holding the tutorial in front of you.

Then you're ready to move on to bigger and better things.

I will show you how to make as asset with the house you just made, in [PART 2]