

A promotional image for the video game Tomb Raider Underworld. It features a close-up of Lara Croft from the chest up, wearing her signature black tactical harness and dark pants. She has a determined expression and is looking slightly to the right. The background is a dark, atmospheric scene with a large, ancient stone structure, possibly a temple or tomb, partially visible in the shadows. The lighting is dramatic, highlighting her face and the texture of her gear.

TOMB RAIDER™

U N D E R W O R L D

XNA LARA MANUAL

Introduction

XNA Lara is made by Dusan of the Tomb Raider Forums, in which he put so much time and attention into, and has brought smiles to so many peoples faces. For that, we all thank him so much.

Through this manual you'll go through the basics of creating a simple pose, to a detailed render, then going on to create wonderful masterpieces in image editing programs.

Also, you will see words highlighted in different colours throughout the manual. **Blue** refers to bones, **Red** means directions in the Control Window and **Green** means keyboard shortcuts.



Happy Raiding!



Do's And Don'ts

Sometimes, if you accidentally rename or move something in XNA Lara, it will completely mess it up and you won't be able to use it, so here are some tips...

DO NOT: Rename .mesh files – the .mesh files are what give the character the bones and other parts; Leave them as they are.

DO NOT: Move any of the folders out of the XNA Lara folder, it can mess it up

DO: Back up your folders when making a mod, otherwise you'll lose it and have to re-download the data pack

DO: Save your POSE or SCENE often in case the worst case scenario happens and you loose it all.

REMEMBER: The "Save Pose" Command only saves the pose of the currently selected model. So if you have multiple models in your scene – select "Save Scene".

Part One: Getting The Basics

Before you can even get XNA Lara working, you will need to core frameworks; [Microsoft XNA](#) and [Microsoft.NET](#)

Download and follow the on-screen instructions to install them. You're not far from getting XNA Lara!

Now you have to download the latest version of XNA Lara, [Here](#) is Dusan's original post to see which version you need., and extract that to your desired location.

One final step – download data packs. In the link above are two links. Both of them say "Download Data Packs". Choose your link, then when it has finished downloading, extract that into XNA Lara – Data.

Now you're ready to get posing!

Part Two: The Control Window

The control panel is the main part of the program – it enables you to control your characters.

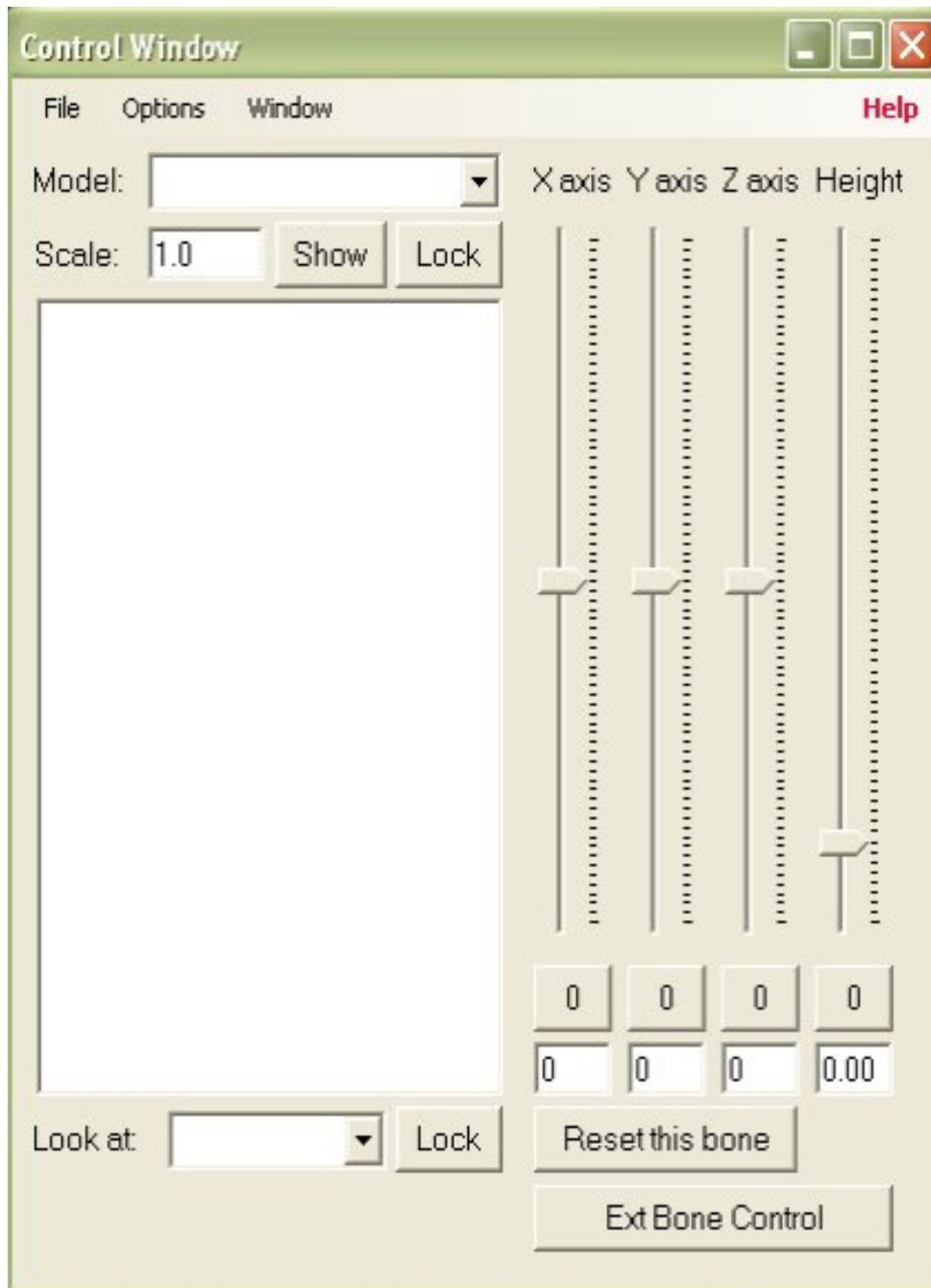
The next page shows you what everything is and how to use them.



By Love2Raid



By fuzzycroft



Help

Shows the controls and Credits

File

Lets you add/remove a character, save your image and poses

Options

Shows accessories you can add and camera/lighting effects etc.

Window

How big you want the window

Model & Drop Down Menu

Sets the currently active models

Scale

The size you want your character to be

X, Y, Z Axis Sliders

What lets you rotate the bones

Height

Control how far up or down the character goes

Look At

Lets you choose what part of the characters body you want to look at

Extended Bone Control

This makes controlling parts of the face and other bones much easier

Hopefully that put the basics to you, If not, further in the manual you will find out what to do.

The Control Window is the key part when creating poses, but sometimes it gets in the way of parts of the characters body, so scale it to its smallest height so its not in the way – if you can't see what you are doing when it's small, scale it bigger.

Also, on the Control Panel you can see to buttons next to the scale box which say "Show" and "Lock". If you click "Show", it will show and hide the currently selected model, which makes it easier when posing multiple models for example. "Lock" locks the model you are using, so you don't accidentally select other models when using them.

Part Three:

Camera Navigation in The 3D Space

To create the best poses, camera navigation is crucial. Without it, you can't see what you are doing and it won't give you the best results when it comes to saving your image.

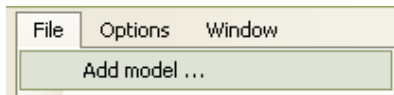
You can easily rotate the camera by using the **Left Mouse Button** and dragging it around the screen – this way, you can see all around the models body. But, if you hold **SHIFT** when doing this, you can pan the camera; so if you wanted to see half of the models face, use this and zoom (**Right Mouse Button - Drag**).

Play around with the camera when you open XNA Lara, see how it can really help when navigating around the 3D area.

Part Four: Adding Your Character

When you have your data packs in the correct place, you can add your character. For our first simple pose, we'll create Lara standing bored. But that's later on.





Step I:

When you have opened XNA Lara, go to **FILE** > **Add Model**,



Step II:

Now go to Lara Jungle Shorts (lara_jungle_shorts is the default name, the above one is a renamed folder). Now click OK and when it has loaded, your model will appear in the Default pose.



So here is your model. The X, Y and Z axis' help you rotate the bones around. Different bones are controlled differently by each axis.

But, NumPad 1, 2, 3 or Q, W, E and Left Mouse Button Drag also control these, and it's much easier.



If you move your mouse across Lara's body, you'll see lots of dots appear, these dots are the **bones**, and they are what you control.

Part Five: Posing Lara

Okay, now we are going to create the pose seen at the beginning of Part Three.

But first, refer to the next page for the controls or carry on and start posing.



By Alex Fly



By LARA_geek

Controls

Here is the basic Controls used in XNA Lara.

Left Mouse Button – Drag > Rotate Camera
Shift & Left/Right Mouse Button – Drag > Pan Camera
Right Mouse Button – Drag > Zoom Camera

Left Mouse Button – Click > Select Bone

(NumPad1 or Q) & LMB drag > Rotate Selected Bone Around X axis Slider
(NumPad2 or W) & LMB drag > Rotate Selected Bone Around Y axis Slider
(NumPad3 or E) & LMB drag > Rotate Selected Bone Around Z axis Slider

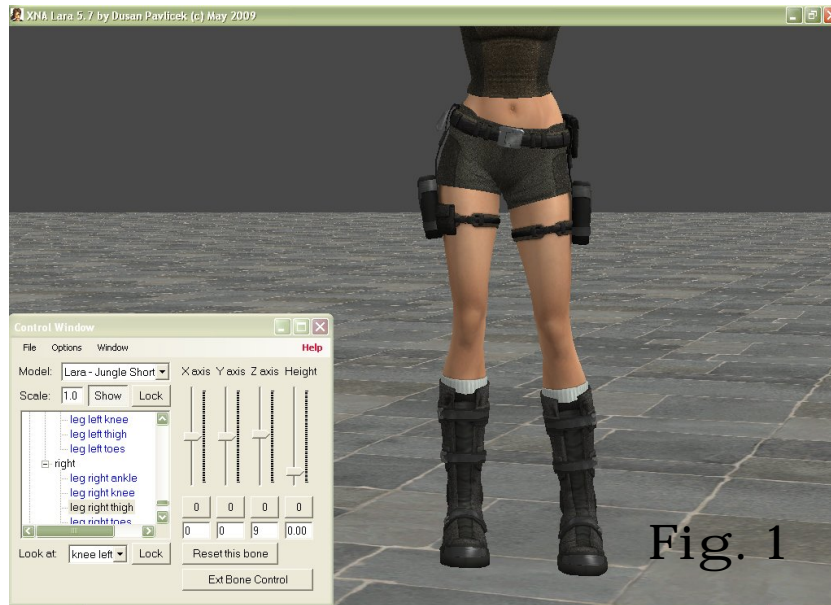
NumPad0 > Reset Selected Bone

Ctrl + LMB click/drag ... position model on ground plane
(Shift +) arrow keys ... move model on ground plane (two speeds)
(Shift +) Alt + arrow keys ... move model vertically

F2 > Camera Quick Save

F3 > Camera Quick Load

1, 2, 3, 4, 5, 6, 7, 8, 9, 0 > Set Camera Target (Look At)



TIP:
In the 3D Window
(Where Your model is)
press NumPad 1, 2, 3
or Q, W & E then Drag
the Left Mouse Button
– It makes
manoeuvring the
models easier...

Step 1:

Think about how, in real life, how the human body acts, so that your pose doesn't look abnormal. Here, I have rotated Lara's **PELVIS** around the Z Axis of about -10 so that it gives her a slanted look. Now with **LEG LEFT THIGH**, rotate that around the Z Axis again, and then her **LEG LEFT ANKLE** the same again – it is best to have the ground there so that Lara isn't standing in thin air (**Options > Display Ground**). The right leg is very similar, but with that you don't have to slant it. Do that so that Lara looks like that in Fig.1.



Fig. 2



Fig. 3

Step II:

Now work up the character's body with the arms, move **ARM LEFT SHOULDER 2** (There is **ARM LEFT SHOULDER 1**, but that is further up the body) around the Z Axis so that Lara's arm is dangling down, and the same with **ARM LEFT WRIST**. Do the same with **ARM RIGHT**, but don't make them identical because she'll look like a robot.

To zoom in to the characters body parts, go to Look At, or use the Number Pad to look around (Go to the Controls page for help).



Step III:

Now comes the tricky part, the fingers. The fingers are one of the trickiest parts of the model to pose as they are so delicate, especially when trying to pose a model with a weapon. So read carefully.

Zoom right in to the fingers so you can see what you are doing. Each finger has three bones (Two extra in Extended Bone Control), so sometimes it's best to rotate the camera in some situations.

The Thumb is **ARM R/L FINGER 1 a, b and c**, but the thumb never really needs posing unless the character is holding a weapon. Move **ARM LEFT FINGER 1a and b** slightly around the Z Axis, but the other fingers more and more so that it looks like her fingers are curling up – again, don't make them look identical. Refer to the pictures if you want any help.

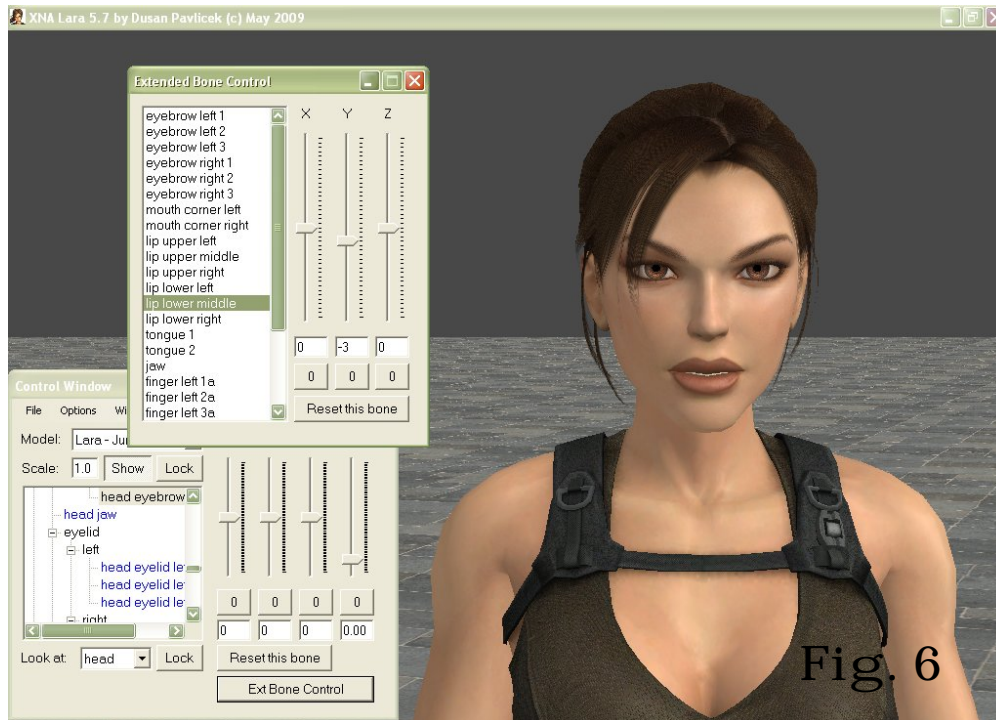


Fig. 6

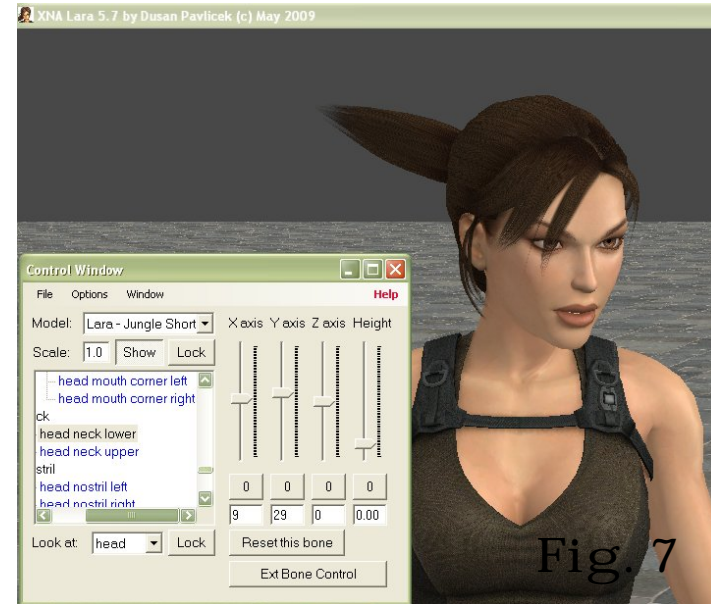


Fig. 7

Step IV:

Before we move onto the hair, we'll sort out Lara's expression and head. Zoom in quite a bit and then go to Look At > Head or use Number Pad 1. Now you should have a clear view of her face. Click on "Extended Bone Control", and a new window will open. In here, you can control bones easier – as well as being able to pose differently.

Lets give Lara a bored look. Go to **EYEBROW LEFT 1** and **RIGHT 1** and move the Y Axis slider down, but not too much, otherwise Lara will end up looking mean. Then, pose her bottom lip, **LIP LOWER MIDDLE** should do the trick. But again, don't move it down too far. Once you're happy, close the window.

Now go back to the Control Window, and on Lara's model, look for **HEAD NECK LOWER**. Pose the neck using the X and Y Axis – I posed mine as X Axis = 9 and Y Axis = 29. Of course you can put yours to whatever digits you like.

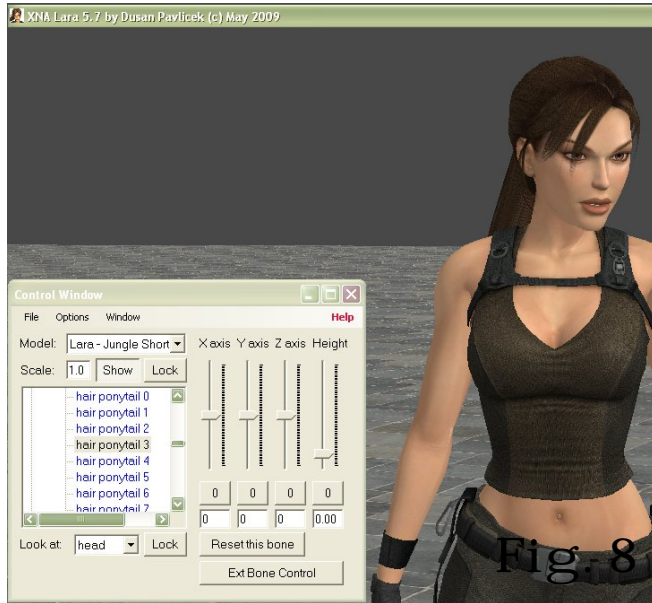


Fig. 8

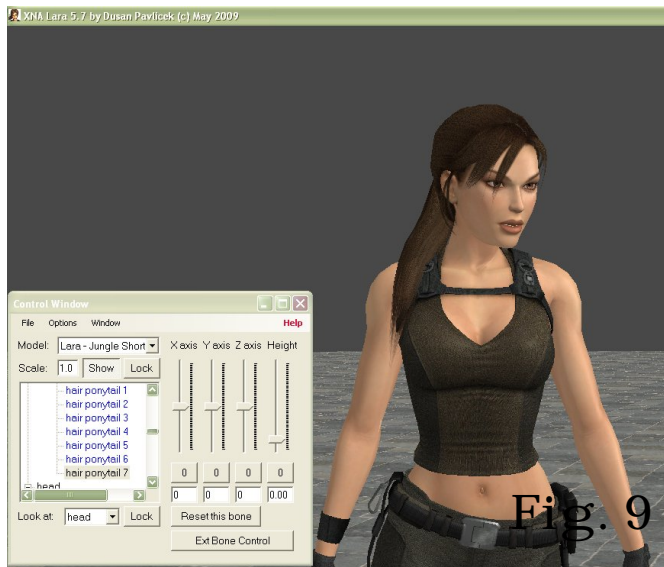


Fig. 9

Step V:

Finally, we can pose Lara's hair. This, like the fingers, can be very tricky in some situations. Sometimes it is best to rotate the camera to get the best results, especially when posing hair like we have.

Zoom in to Lara's hair to get a better view. There are nine bones in Lara's hair, and the first 3 are close together. So, move **HEAD HAIR PONYTAIL 0**, around the Y Axis to move her hair forward and back, and the X Axis to move it left and right. Move it so it's pointing down, but not all the way, and again with **HEAD HAIR PONYTAIL 1** and **2**, but this time, moving it upward a little (Fig. 8)

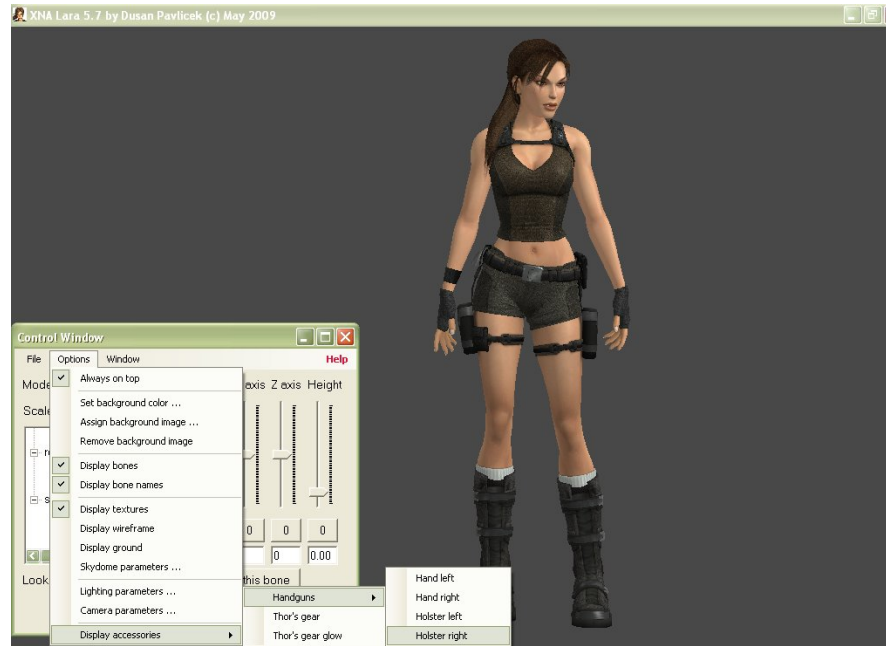
Now, use the Y Axis on **HEAD HAIR PONYTAIL 3** and put Lara's Hair in front of her shoulder, then the X Axis to put it into place. Carry on going down the hair until it looks something like that in Fig. 9.

Part Five: Adding Accessories

Well Done! You have successfully created your first pose. But on its own, it looks a little bland. Lets add some things to Lara and make her look wonderful.



There are two ways to add accessories, through adding another model or through the **Options Menu**.



If you click “Thor’s Gear”, it will add Jarngreipr and Megingjord to Lara (The Gauntlets and Belt in other words) and “Thor’s Gear Glow” will put a beautiful blue aura around the artefacts. You can also add Lara’s Handguns to her holsters or hands – the latter meaning you’ll have to pose them. Or, you can add another model to get your character geared up.



Step I:

Lets put an Assault Rifle on Lara's back, and we all know how she wears them.

Go to, **File** > **Add Model** again and choose Weapon Assault Rifle. You'll see it pops up strange, but we can fix that. Turn the camera so that it's looking at Lara's side. Now, (Make sure you click the window where Lara is) use the arrow keys – and hold '**SHIFT**' to make it move faster, to make the model behind Lara's feet.

Use the "Height" option in the Control window to make Assault Rifle up to Lara's Backpack. Click on 'root' and rotate the Rifle so that it looks like that in the bottom picture.

The Best numbers to use are:

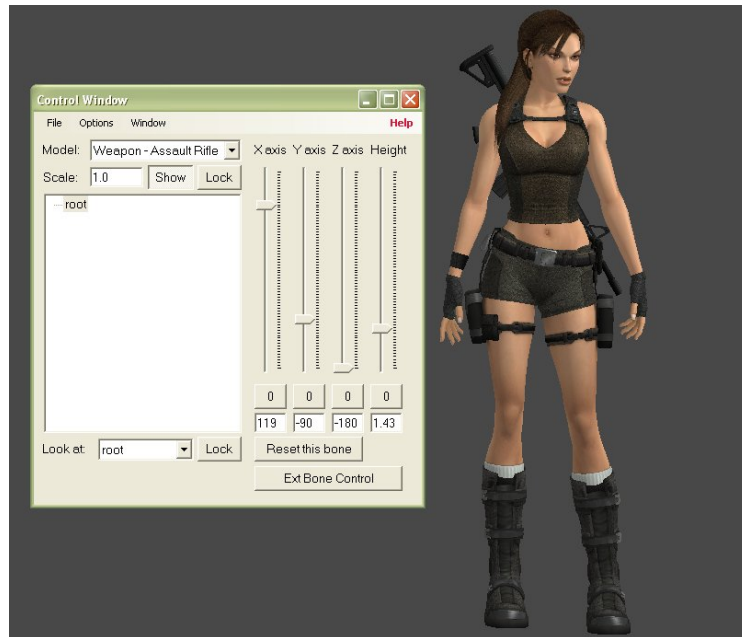
X Axis = 119

Y Axis = -90

Z Axis = -180

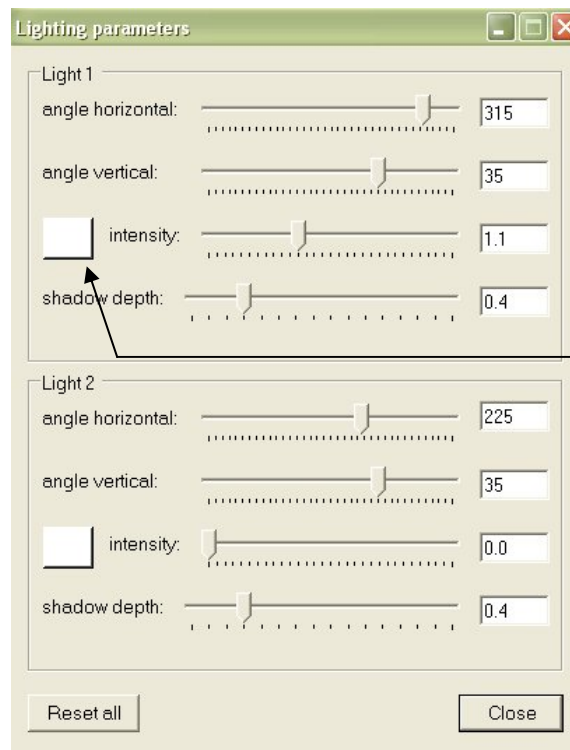
Height = 1.43

Also, put in Thor's Gear and glow and Lara's Handguns for added goodness.



Part Six: Lighting

Lighting brings life to a picture, so it is a nice touch to add something. In XNA Lara, you have the option to add two light sources and colour. Here is the window so you can see the basics. The **Lighting Parameters** option is in the **Options Menu**.



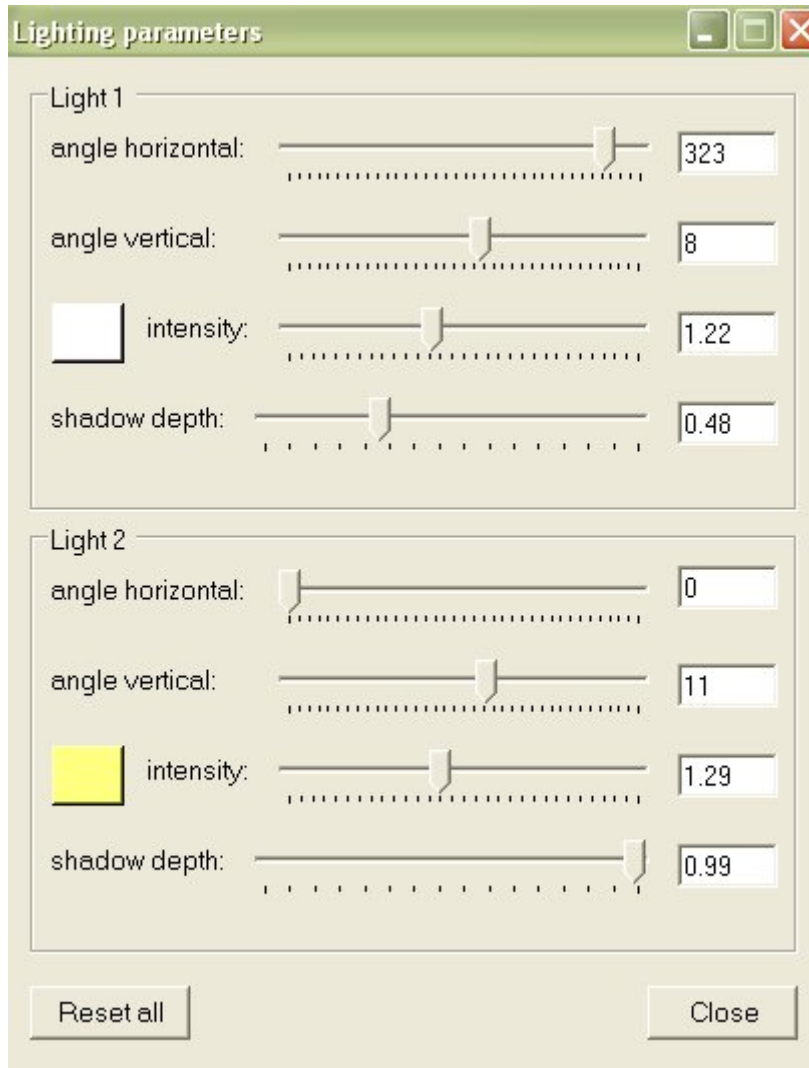
← **Angle Horizontal:** The way the light passes across the body

← **Intensity:** How bright or soft you want the light to be

Light Colour: Which colour you want the light to be - Click to open a new window

← **Angle Vertical:** The way the light passes up/down the body

← **Shadow Depth:** How strong or soft the shadow should be



Now we should add light to our render. On the right is the **Lighting Parameters** I used, but by any means, use your own.

Part Seven: Saving Your Image and Exporting Models

Without saving your image, there is nothing to share with the world, so, to save it, go to **FILE > Save Image**. A window will pop up and enable you to save your image in different formats.

Ticking "Save Alpha Channel" will only save your render, making it possible to open it in an image editing program and go further with your render. You can also click the drop down menu to save your image in different sizes; 100% being the size it is on screen, and 800% being absolutely huge and in the best quality.

Click **OK** and the program will allow you to choose where and what format you wish to save it as; JPG or PNG. When you have finished, click save.



That beauty on the left was made by -Trangel- in Maya. There are plenty of tutorials in which you can create similar things in 3D Model programs such as Maya and 3Ds Max.

But first, you must export the posed model. Go to **FILE > Export Posed Model**. From there, you can choose where to save the Wavefront (.obj) file. When you have exported it, import it into your 3D program and work from there.

At the end of the manual, there is a page which will link you to helpful tutorials.

Part Eight: Making Fully Fledged Scenes

Alright, it may take a bit of time and attention, but once you get the hang of it, you'll be on your way to making scenes that look like they fell from heaven. For example...



By Sir Croft



By James-Croft

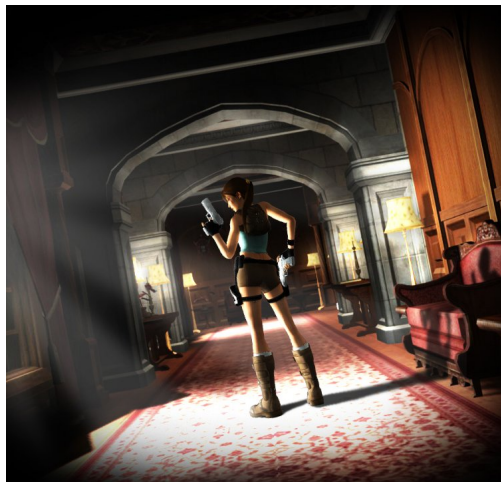
It is as simple as adding more models, posing, then editing...

Give it a go!

Part Nine: Making The Perfect Picture

In XNA Lara, we can assign a background image either for reference when creating a pose or to place a posed model into an existing background. All you do is go to **Options > Assign Background Image**, if you don't like it or want to remove it, click **Remove Background Image**

But, we can also export our render into an image editing program such as Photoshop, Paint.NET or GIMP to put all sorts of effects into our image. Instructions to create a simple wallpaper are on the next page.



By TRKO



By Vanity



Right, I've found a picture I think will suite my render, but there is an obstruction – Lara is in the way, so, I have to save my render quite large in order to make it good quality. Now in your image editing program, you open this picture, and your render. Select what part of the render you like, and CUT it (Usually Ctrl+X). Then, go to your chosen background and PASTE IN A NEW LAYER (Ctrl+Shift+V). You can scale your render so that it covers the obstruction. The finished product is...



You can do so much more when you have the initiative and determination to, so go on and give it a shot...

Part Ten: Other

There are parts in the Control Window that haven't been explained in full detail, so this section will fill in them small details.

Skydome Parameters: The Thailand Skydome can be displayed when "Display Skydome" is ticked, from there you can control the elevation and rotation of the scene.

Camera Parameters: Helps control the Field of view in the camera angle.

Set Background Colour: The colour of the background.

Reset Selected Pose: Resets everything on the selected model, so be careful.

Part Eleven: XNA Lara Modding

You can mod the textures of the models in their respective data packs and give the characters a new light. Some excellent mods are already available, so check them out on the Useful Links page. Here are some previews.

By |{eith



By Legend Killer



By XNAaral



By tomb4radier



By drakOr



To use mods, follow these instructions:

- Download a mod you like, lets say the Classic by XNAaraL.
- When its downloaded, Copy the folder it replaces – Lara Jungle Shorts for the Classic mod.
 - Rename the folder you copied to Classic (Or something like -Classic- if you want to keep all your mods together)
- Extract all the files in the .zip/.rar to the Classic folder – but make sure you DO NOT rename the .mesh or the textures – a different mesh will stop the model from working and different named textures will appear black.

Now your mod should work and you can be posing with all sorts of different looking characters.

Useful Links

If you want to use extra models, or read tutorials, follow these links.

[XNA Lara Modding Thread](#) > Download mods to use in XNA Lara
[Recapitulative Of The Additional Objects For XNA Lara](#) > Use extra models in XNA Lara

[Reflections by fuzzycroft](#) > Learn how to make reflections in Photoshop

[Combining Models by fuzzycroft](#) > Learn how to combine different models in Photoshop and create different renders

[Underwater Effects by fuzzycroft](#) > Learn how to make water effects in Photoshop

[Lighting Effects by \[Tomb Raider\]](#) > Learn how add nice light effects in Photoshop and others

[Applying Textures in Maya by -Trangel-](#) > Learn how to bring models alive in Maya

[Lighting Effects in Maya by -Trangel-](#) > Same as [Tomb Raider]'s tutorial, only in Maya

Credits

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XNA Lara Manual by LaraRules81, with the help of Dusan.

Many thanks for your time, enjoy XNA Lara!