Fexanim 1.8, By Turbo Pascal.
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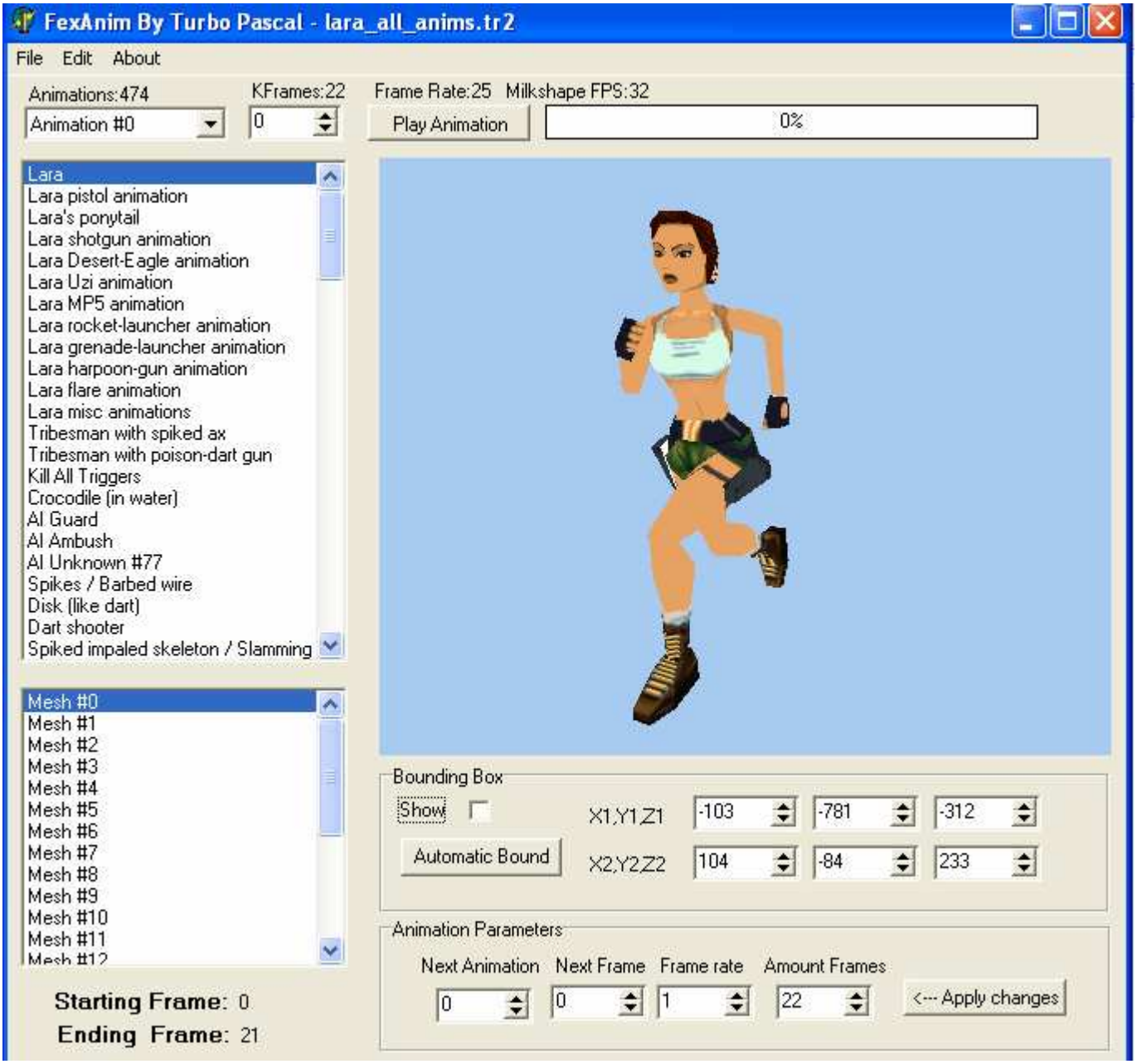
FexAnim is a tool designed to work with the tomb raider animations, the game supported are from tomb Raider 1 to Tomb Raider 5.



Fexanim allow you to open a tomb raider level and then select a movable and inspect its animations; which can be reproduced in the render viewport. Also there is the static mesh list so you can check the meshes used as ornaments and similar.

But the most useful features are that you can extract the animation to be exported to some externals animator tools which are designed to allow you to modify the animation in an easier and faster way. Then you can import back the animation into the tomb raider file; and if you want you can then use wadmerger to open the file and extract the edited movable into your WAD file; all this proccess is (most the time should be) PAIN FREE, no weird task, no wicky tricks, no frequently crash.

THIS TOOL DOSENT ALLOWS YOU TO IMPORT MESHES & TEXTURES.

For safer result, it's advised that you should:

- DO NOT USE FILES WITH ONLY ONE OBJECT ON IN.
- Export animations from any file but Import back (preferable) into normal non-wadmerger-origin tr files, That will guarantee that you have a smooth import into the tr file that can be then opened into Wadmerger

Usage:

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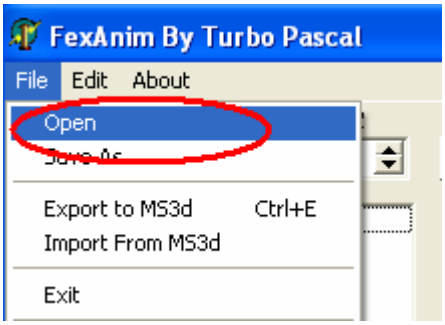
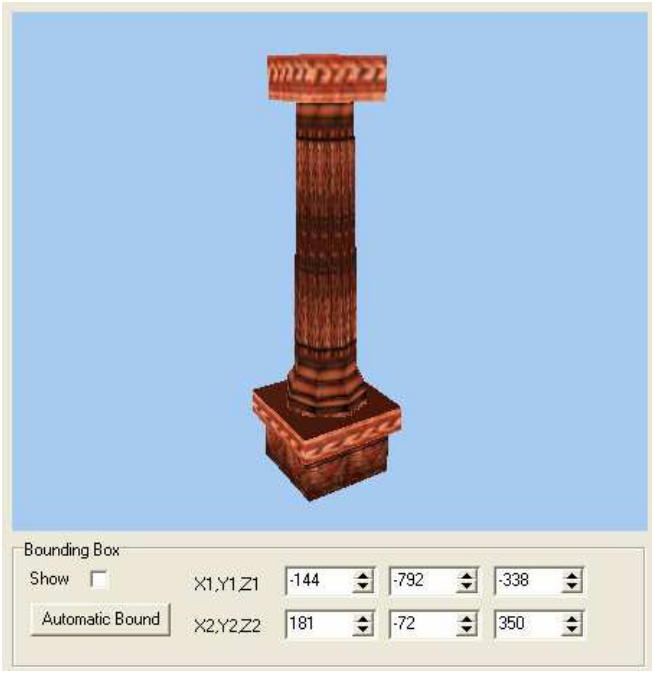


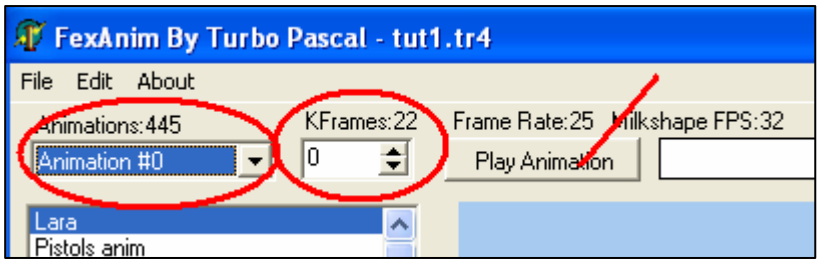
Select from menu File, Open, and select your desired tomb raider file, it can be phd, tub, tr2,tr4 and trc file format.

Then you have a list of movables, and also a list of static meshes, you can select a movable or a static mesh to render the object into the viewport.

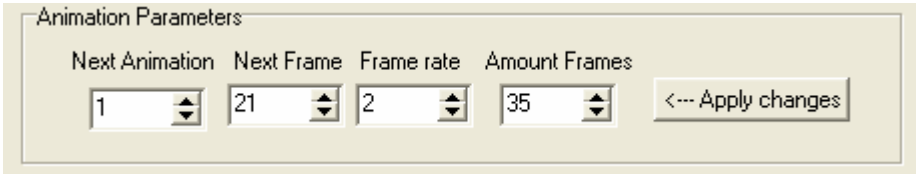


The bounding box controls allows you to define how the collision is applied to the object, for movables a bounding box needs to be defined for each keyframe. The "Automatic Bound" button will defined the collision box automatically based in the min & max mesh extents. Enable the "show" checkbox for render the bounding box.

The Animation label and control allow you select the animation into the movable you wants to inspect; and the kframes control allow you to select desired keyframe into that animation. The Play animation buton will play the animation sequence.



The Kframes label tells how much keyframe the animation have; in the control you can select kframe -1 to render the model in the bind pose. If the Kframe label say -1 it mean the animation is empty.

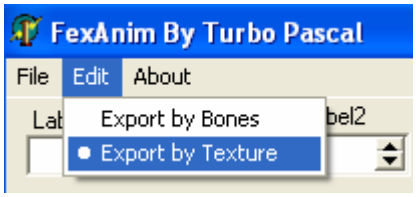


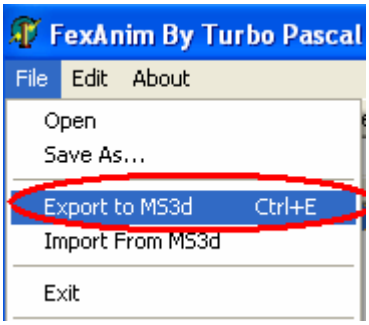
For current animation selected, you see some parameters setuped for the game.
Starting Frame and Ending frame is correlatives frame in the movable, it tells you the amount frames (same as the control with the same name); note that there can be more frames than key frames, it mean the game interpolate the available key frames for generate the amount frames.

Next Animation, Next Frame is links to what animation to jump from current animation in game.
Frame rate define the speed to play the sequence. Utilize the apply changes button to save any edit you did to these controls.

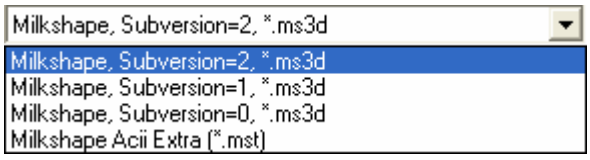
Warning:!!!!. Be careful if you change the amount frame for the animation, Fexanim will take care of update what it is necessary to maintain the data valid, however all anims commands that makes reference in their parameters to a frame number will not be longer valid (new frames where inserted moving forward all frames numbers from this animation and all next) and will need to be fixed manually using wadmerger.

Export to animator tools:





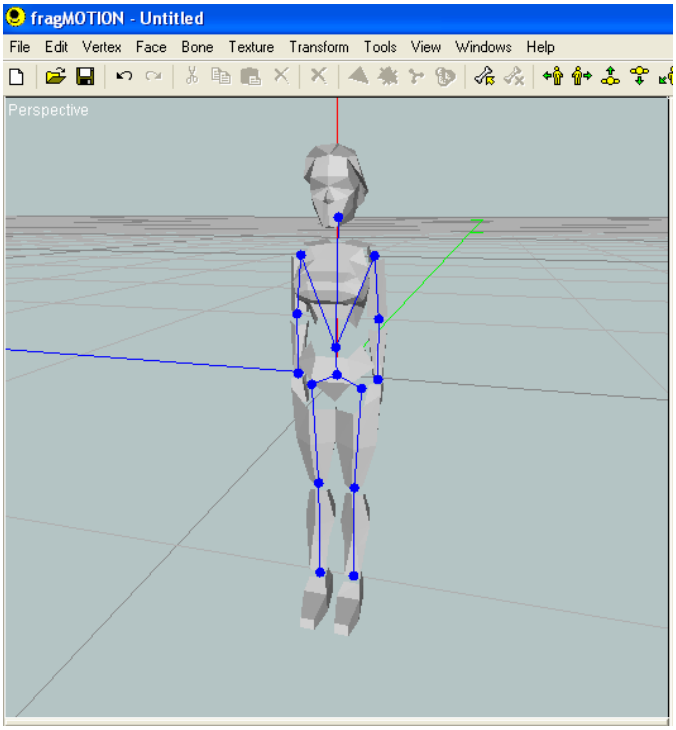
When you have the movable and current animation selected, go to menu Edit and select “export by texture”, then go to menu file, export to ms3d option. There is available the ms3d file format, (with 3 different subversions, just in case) select subversion 2 and name your file.



Along with the ms3d file there is also created one or more texture file in bmp file format, they have the same name as the ms3d file; if there are more that one texture the correlative number is added to the name, example: LaraRun_00.bmp, LaraRun_01.bmp, etc.

Fragmotion:

Opening the exported file in fragmotion is easy, use menu option file, open and selects your ms3d file.



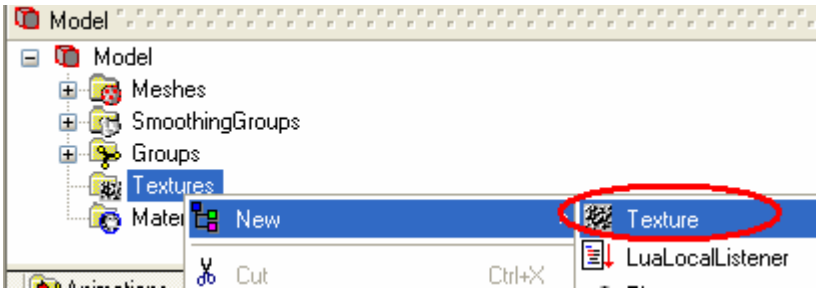
Use right mouse button to rotate the camera, use wheel mouse to zoom in/out the camera.

Lets fix the normals and assign the textures:

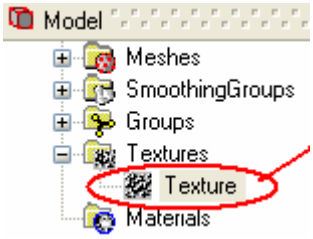
Use menu options, view, textured.

Use menu options, Select all, All, (or just press CTRL + A) for select the whole mesh.

Use menu options Face, Update Vertex Normals, this will smooth the model faces.

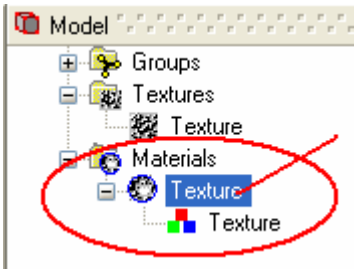


Use right click into texture from the model tree, select new and then select Texture.

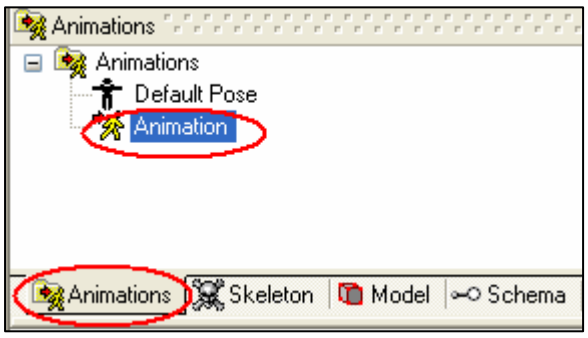


Then select the new texture icon and do right click on in and select Open file, and select your bmp texture file created with the ms3d file.

Again, do right click into the texture icon and select “create material using texture”; then finally, into the material tree, select the new create icon labeled texture and do right click on in and select from menu “assign to selection”.



The model will look textured, now use from menu Edit, deselect all.



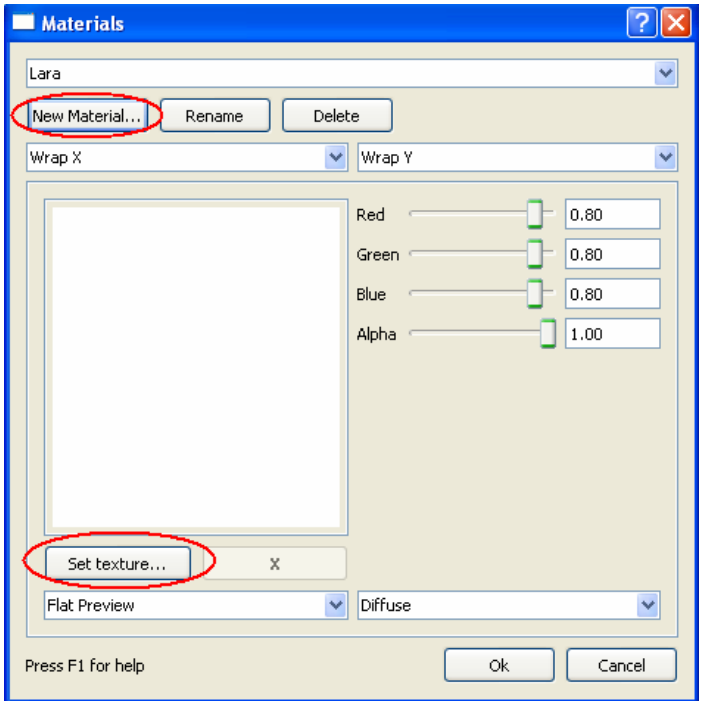
Now, select the tab Animations, and do single click into the Animation icon, this will switch the modeler into the animation mode, at the bottom click the loop button and the play button to reproduce the animation.

MistFit model 3d

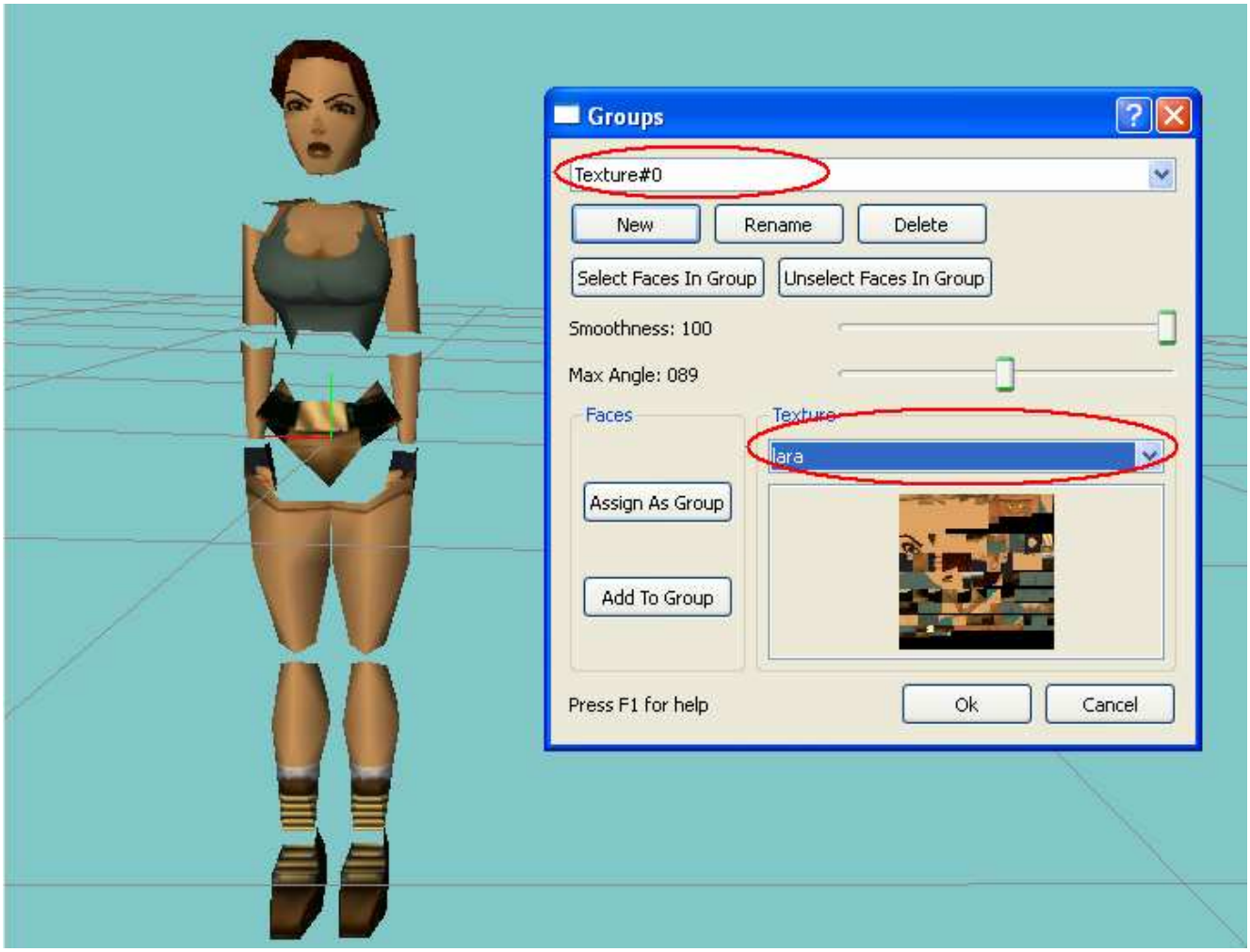
Open mistfit and from menu File, Open, select your ms3d file.

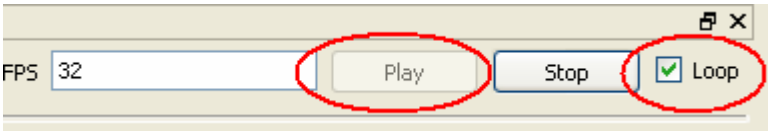
Use hold left click for rotates the model, from menu view select 3d texture.

Select menu options **Materials, Edit materials**, then in the material dialog, use button **New material**, and name your material, for example “Lara” then use button **Set texture** and open the bmp texture file,



Now select menu option Materials, Edit groups, select the group “texture#0, and in texture select your named material, for example “Lara”.



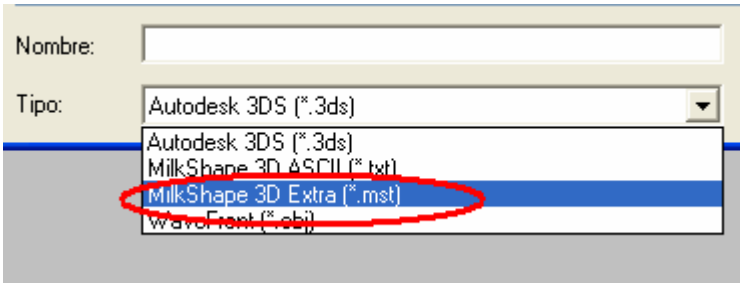


Use menu option **Animation, Start animation mode**, at the bottom check the loop option and then click the play button.

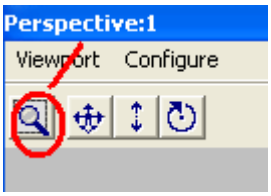
CHARACTERFX

CharacterFX is not a modeler tool, so there is not option to edit/add vertices/faces, but it is useful to assign imported model into a skeleton using weighted vertex and create animations; assigning the texture to your model is the easier.

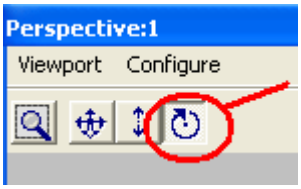
Before everything else, you need to install the MST file format importer/exporter, looks for the MilkshapeEX.lua file included with the fexanim package, put this file \plugin folder found where you installed characterfx.



Run characterfx, use option File, Import, and looks for Milkshape3d Extra (*.mst), so you have to use fexanim to export the animation as mst file. Import your animation.

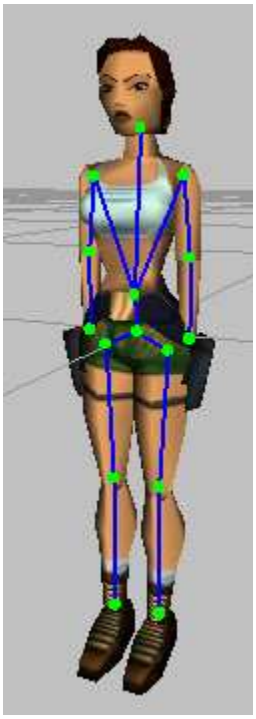


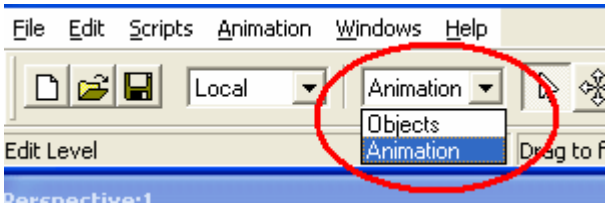
Click the zoom all tool button, to zoom to fit the model in the viewport.



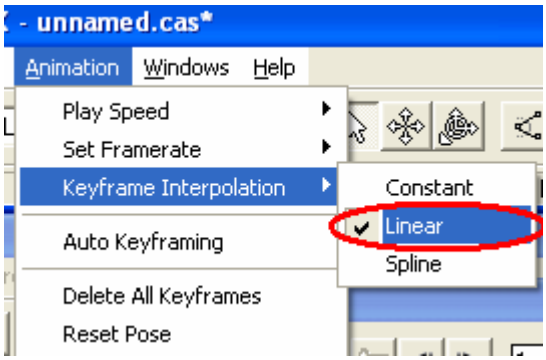
Enable the Rotate Camera button and now use right left mouse button to rotate the camera around the model.

Use menu Edit, Select, All, then use menu Mesh, Generate Normals, then lets assign the texture using menu Windows, material editor, from the dialog, use the open button and opens your texture file, then click the assign material to selected object button; now you can unselect the meshes, use menu Edit, select, None.

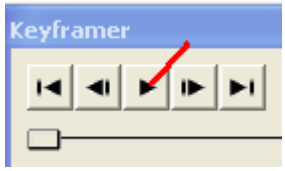




Now go to animation mode, switch from object to animation,

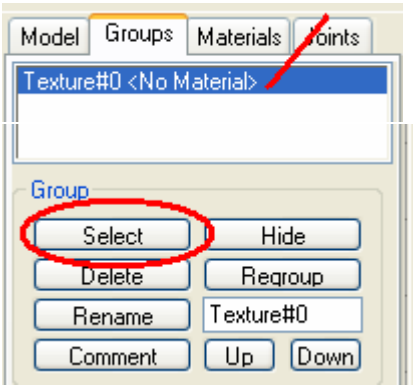


From menu Animation, Keyframe Interpolation, select Linear.



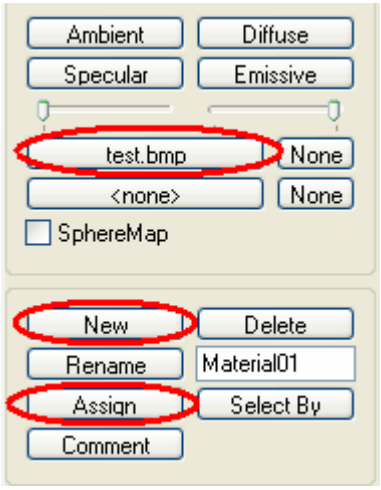
Finally, push Play button.

Milkshape3d



Use menu file, Open and open your ms3d file. Then go to Groups tab, click the group named texture#0 and click Select button.

Use menu, face, Smooth All, to fix the normals.



Select the material Tab, use the New Button for add a new material, open your texture file, and then click Assign button.

Push the Anim botton to switch to animation mode and the click play button.