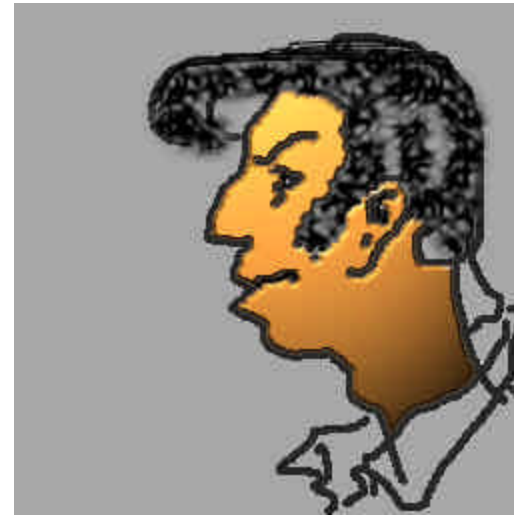


Okay, here is a first sketch: 😊



A "hero or villian" - no! My way should be always the difficult one 😞: I want to make both: a model that works as well as a hero as it works as a villian.

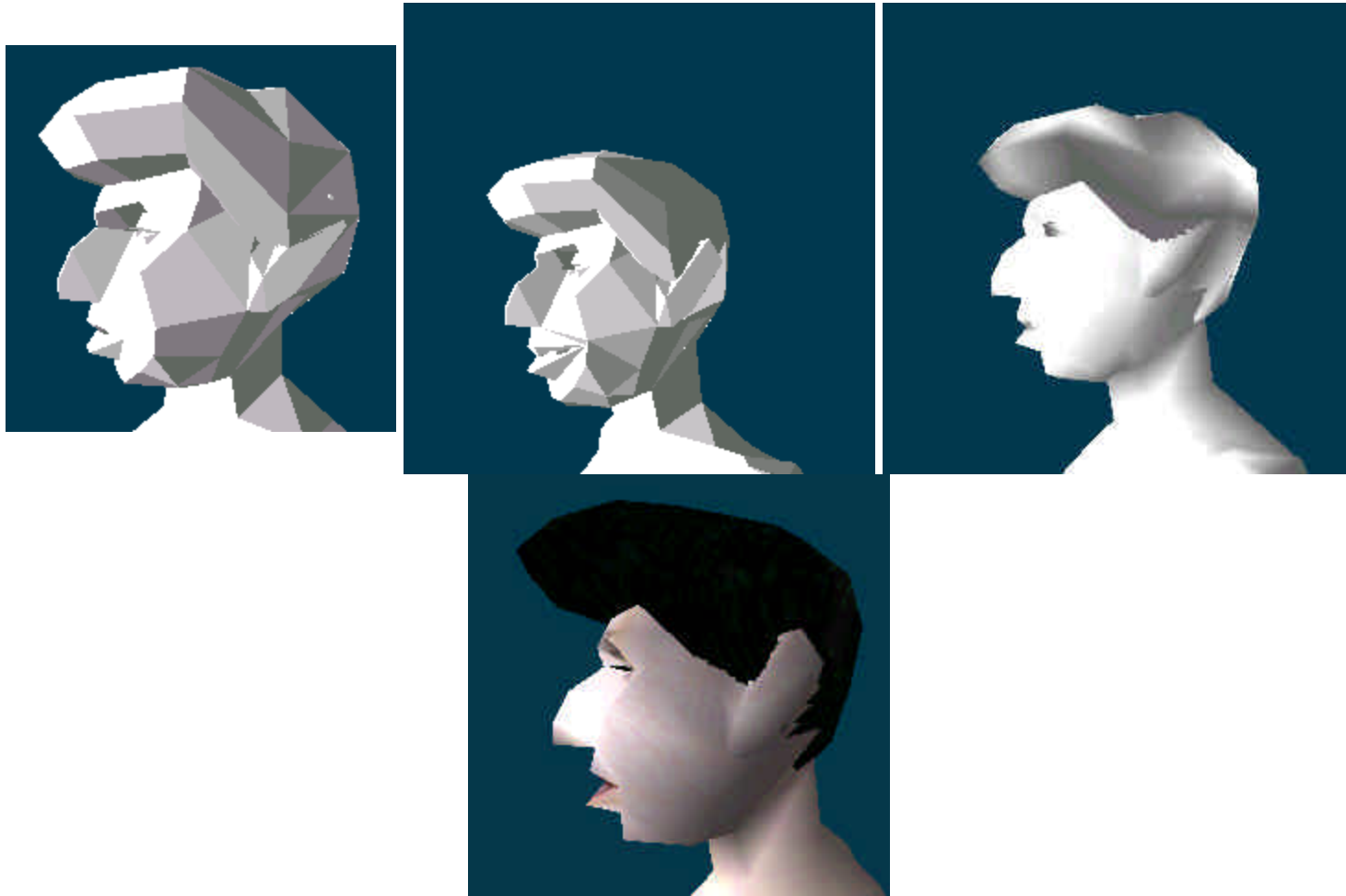
Hmm... second:



Just for fun first was made with paint,second "edited" with photoshop 🌐

Next: later, tomorrow or - 😊

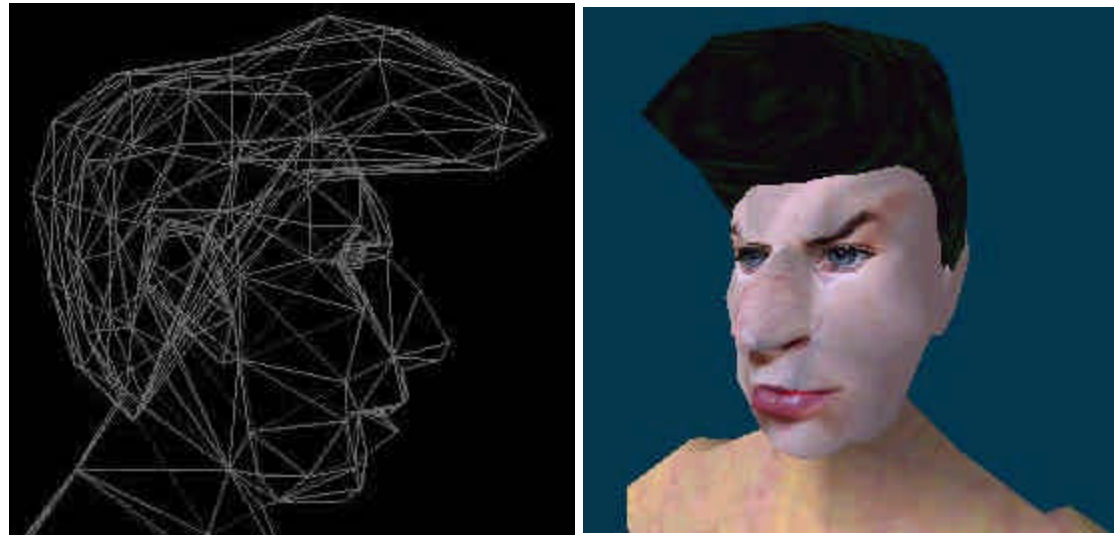
Here are the next results:



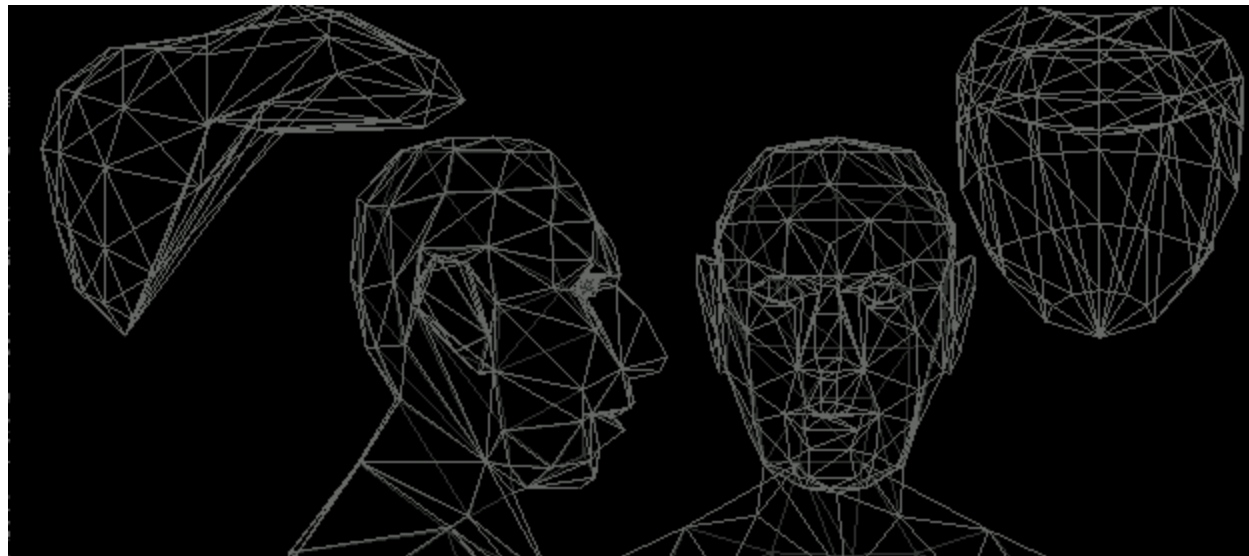
The 3D view of MED doesn't show it very good. It seems to be very different to the sketches. But it isn't. Not that much! 🌐

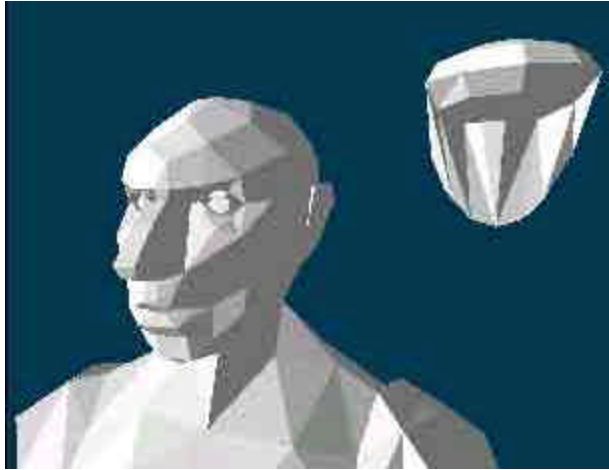
I'm back again!

I improved the head a little:



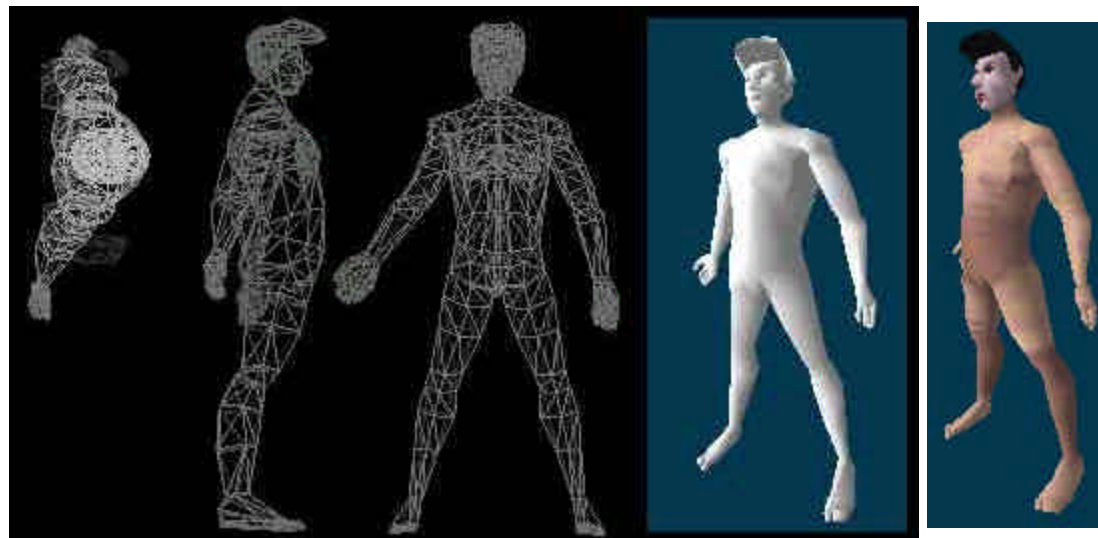
The skin is from a modified photograph - in reality a woman's face. 🇮🇹





As you see one could use it without hair. The hair is formed from a sphere.

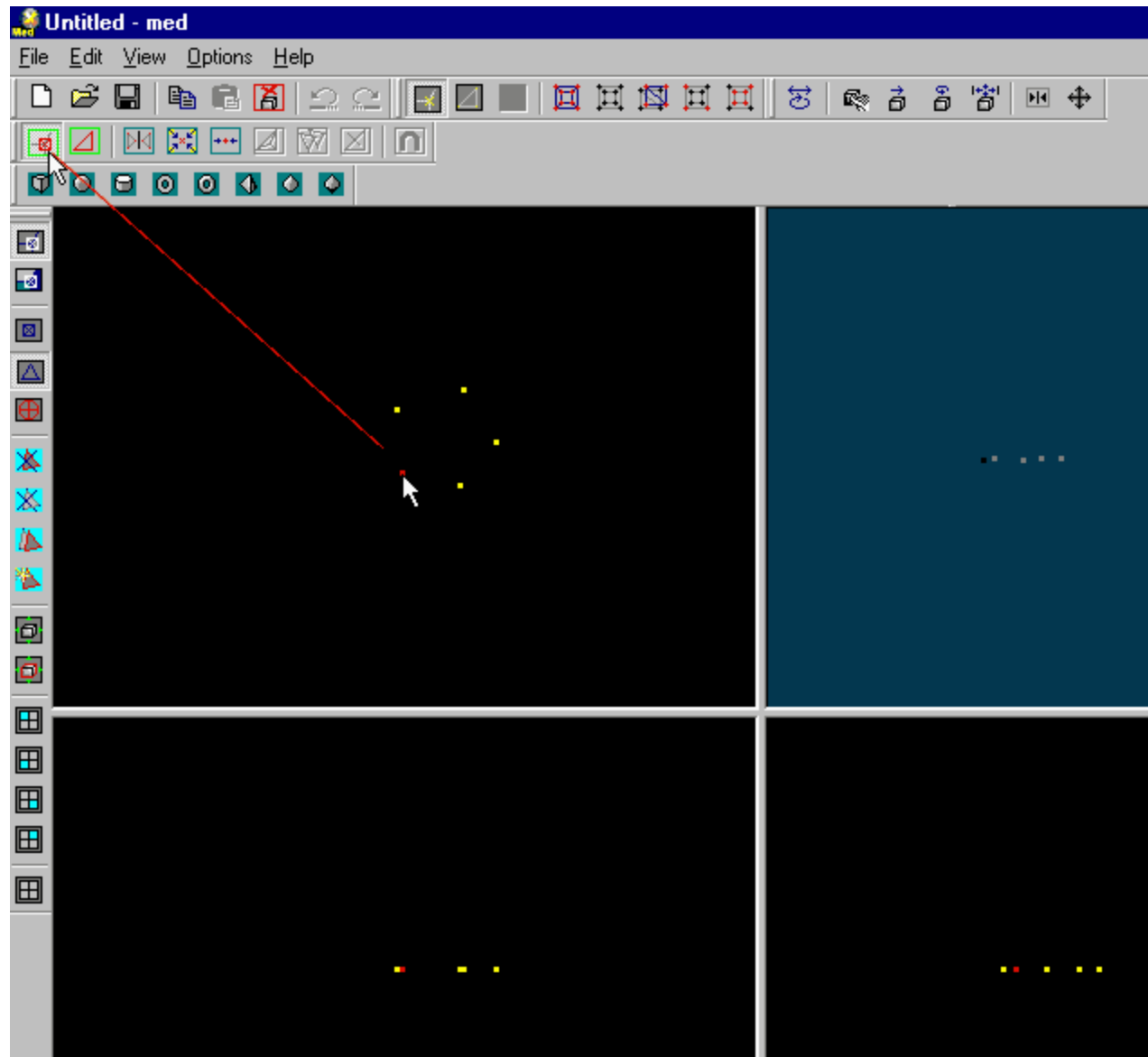
The following pics show you the body.



I already had a model that I only needed to modify to get the right shape for the 'hero/villian'. The model is somehow a prototype for human models. I built it on my own, and I want to show you how to manage to build a human model with MED.

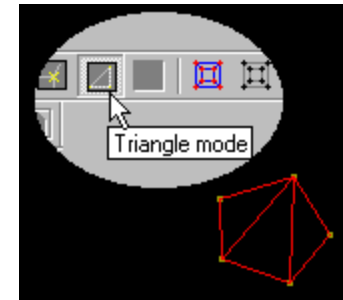
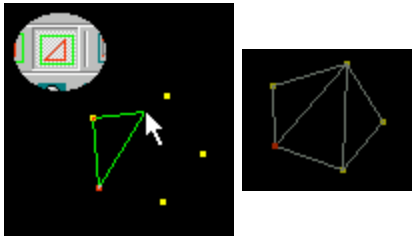
Now I want to show you how I deal with MED to make my models. They are not as breathtaking as some others of this contest but... let's have a look and tell me what you think:

First you place some points in the top view. In the other views they stay at one level, it's the level of the origin.

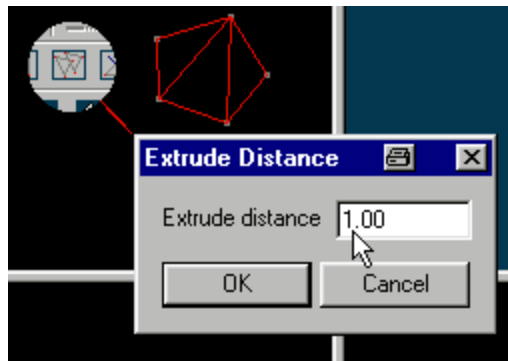


You use the triangle tool to connect the points(vertices), do it clockwise, so the polygon will show the face against you.(I hope my english isn't ununderstandable) 😊

When you finished the faces then you have to switch to the triangle mode.



Click the extrude button, and a window will open. You need a figure higher than zero point. What does 'extrude'? - It's better to try and examine it on one's own than explaining it.



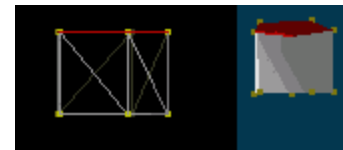
In our case it extruded the wrong direction, it extruded inside out... hm ...outside in - you won't see any faces outside the model if you would go on this way.



With minus you can change the direction of the extruding.

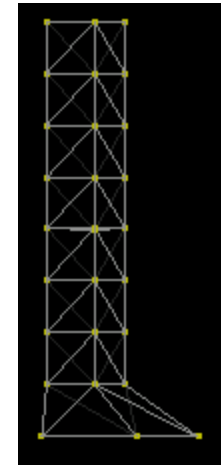
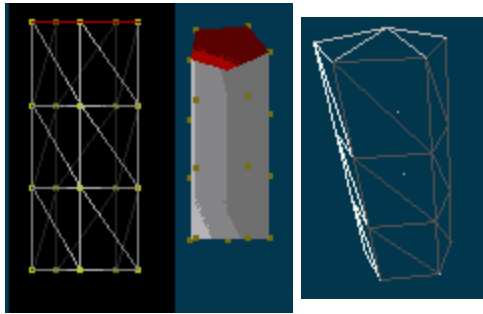


Extrude distance: 4.00:



Click the extrude button, and 'return'. And again...

A very first and very simple leg:



Doubling the leg in three steps, only possible because they are still simple because symmetrical in itself, look at the trousers for the doubling of a more developed shape:

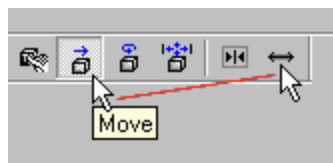
copy:



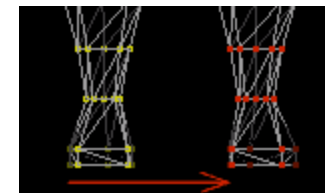
paste:



restricted move:

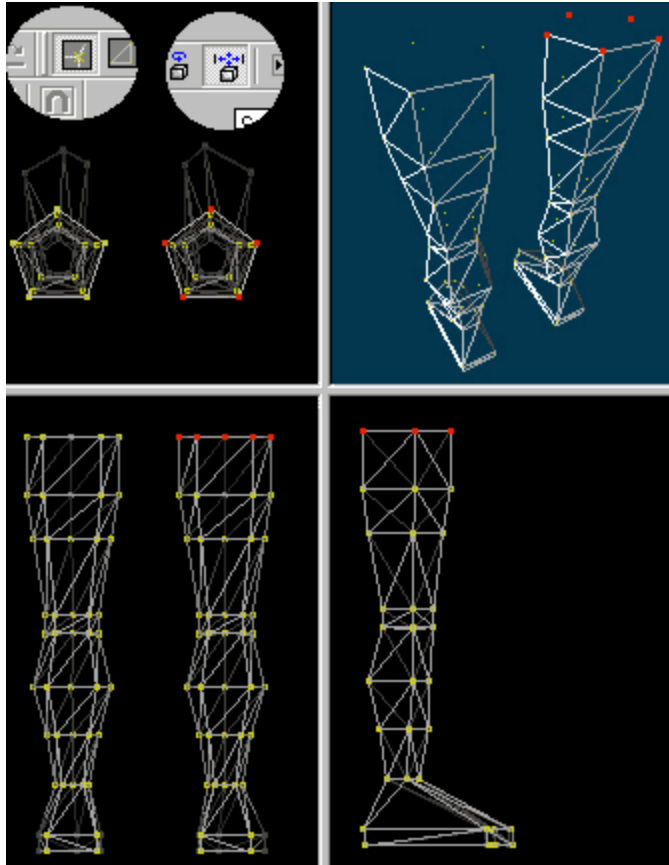


Thus restricted, the legs won't differ in their height.

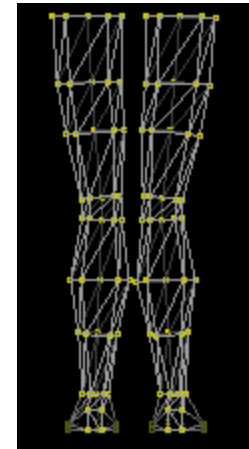


Now you may have an idea why I extruded so often: I mainly

changed the shape of the leg while scaling every single 'level' of the point/vertex cycles.

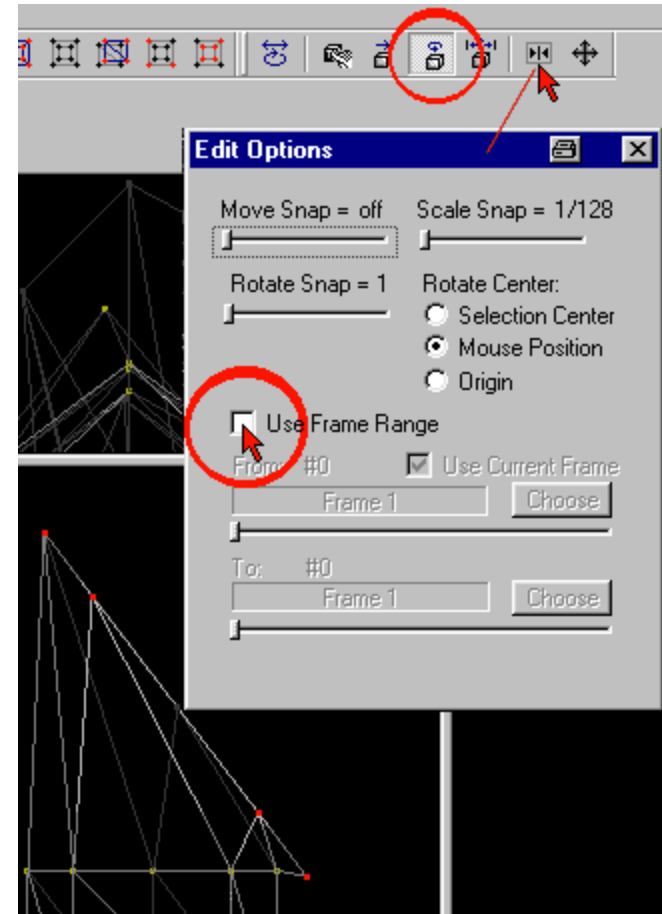
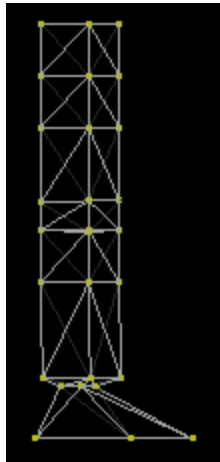


Female (a modification through 'rotate at mouseposition'):



Trousers:

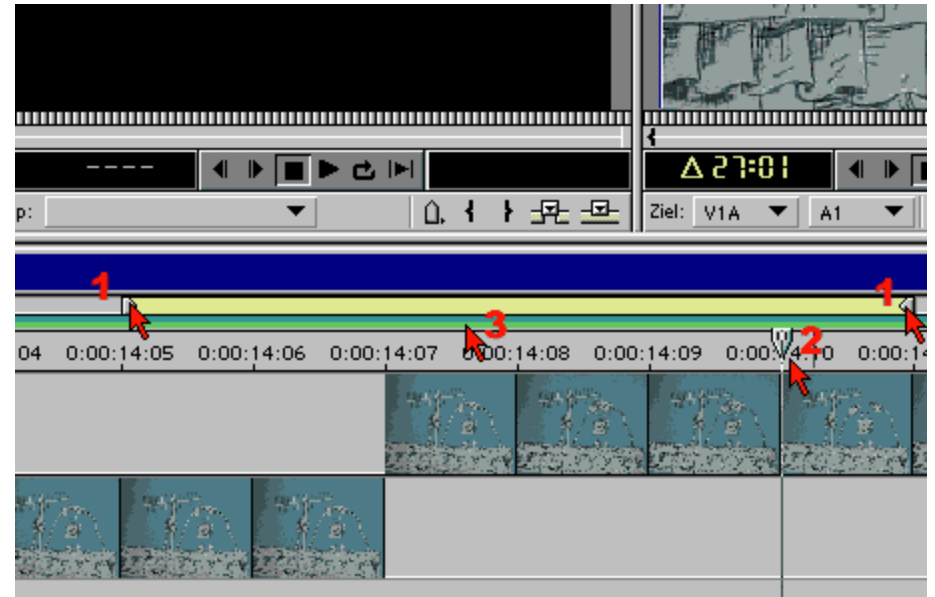
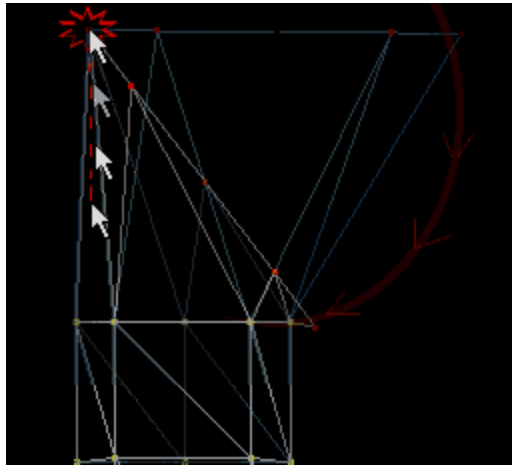
To look on the framerate isn't necessary at this step of modelling, it is important for animating when you have more than one frame.



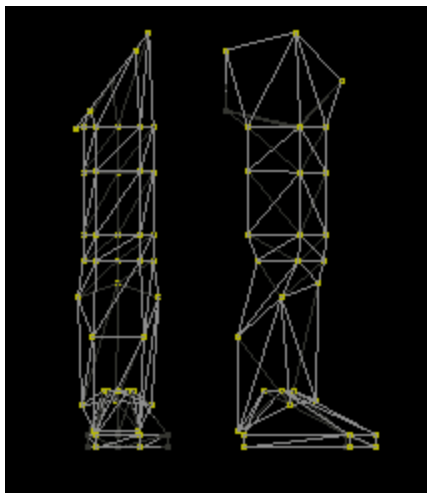
At this place just an example of a video editing software with a great solution how to manage the framerate.

One poor example of how to use the most powerful tool of the MED(it is the MED's main animation tool) 'rotate at mouseposition': you only have to choose - and choose it carefully - the anglepoint, then click and hold and move the mouse pointer up or down.

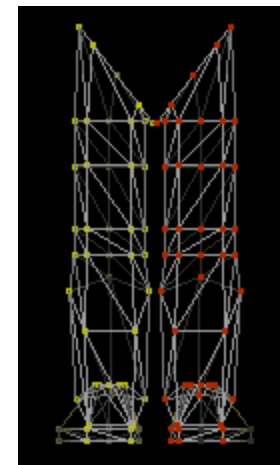
1. Position of the current frame
2. Start and end position of the chosen frame range
3. Other marks to show what has happen to special ranges of frames



The more complex trousers:

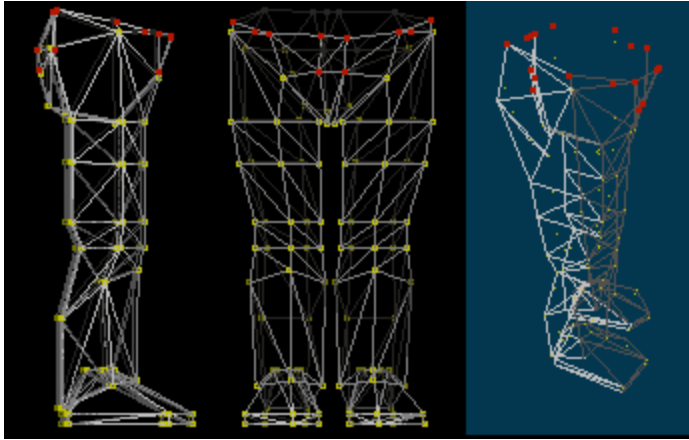


Doubled(copy, paste, move restricted, AND mirrored and flipped normals(only possible in triangle mode))



I don't remember if I doubled the highest points or if I put some points through the 'vertex creator' before I moved them to there

places, and connected them to polygons. It depends on the shapes you have and the shapes you need to add.

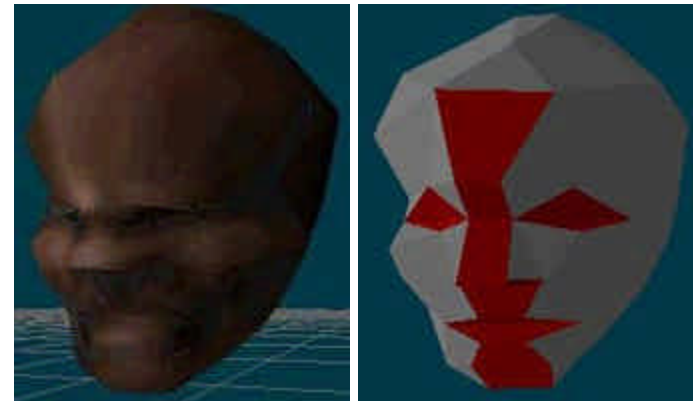


The feet/shoes still have no bottom, but there is no need to explain how to manage that...

First a few pics, afterwards a few explanations, perhaps... hm... shure!

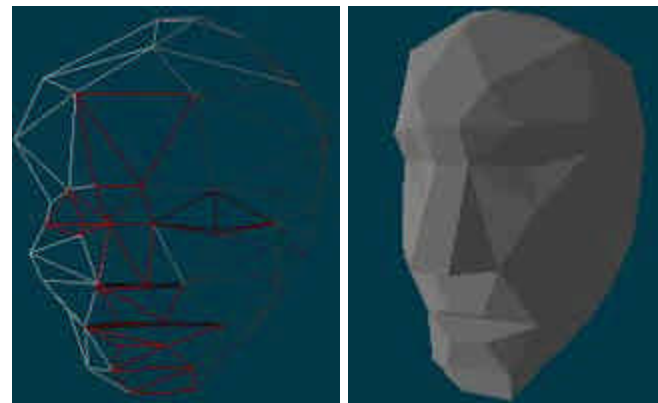
Okey, explanations now: I was searching for the best and fastest way to build a face in MED. Because my problem related to the contest is: I didn't build my model from the very ground. My philosophy 'Don't do anything that is already done' leads me to use models as a sort of prefabs.

I add and tweak a little here a little there to complete the model to fullfill my imagination of his proper shape.



BUT 😞 this is against the contest rules! - - So, I was looking for short ways to build a face (as the most difficult part of a model) from the single pixel or from the modifying of a sphere or cube. Uuh! Maybe, I show you the results later. 😊

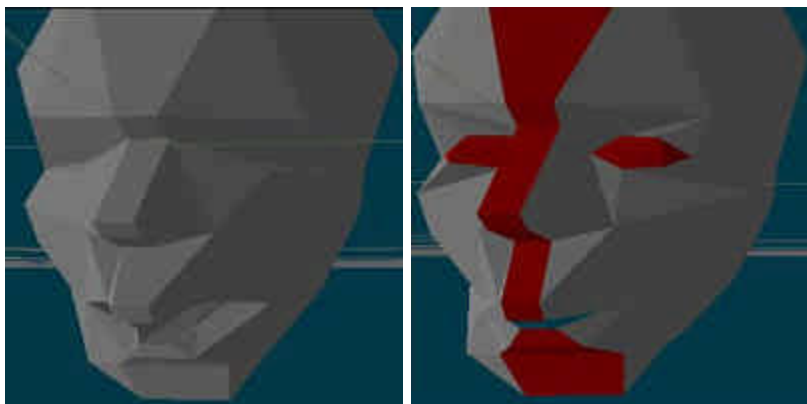
In short: I had to investigate the roots of my models face: the face that I modified until I got my 'hero/villian'. The following pictures are the mute witnesses(?) of the dicovered history.



This three pictures show a mesh that I found in a free download package years ago.

The fourth has exactly the same mesh only modified with move and perhaps scale.

The red marked polygons show the most important parts of a more or less detailed head. It is not a line, it is a chain of squares. To me this seems to be the right start to get a well done head/face.



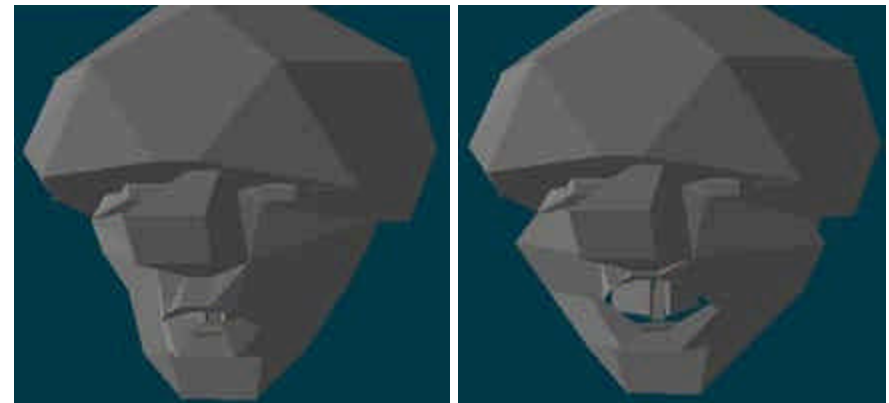
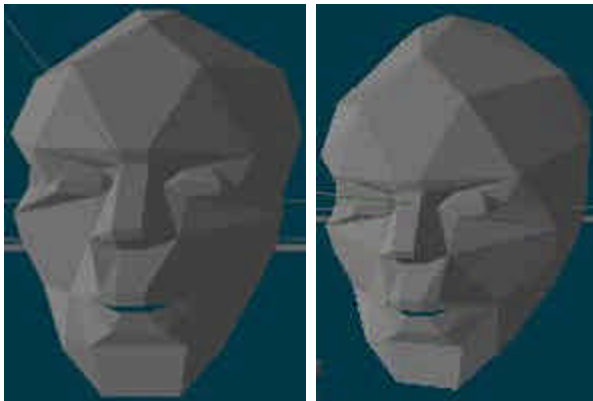
Mainly I deleted the faces that I wanted to 'expand', and copied the 'neighbour vertices', and moved them a little, and replaced the few faces with the triangling tool through a few more faces

The twenty pics underneath(?) are because of the range of variaty of one mesh only by scaling certain vertices, so simple that one could



make it ingame through script. Remember 'Addy' where you can choose the faces shape and look in the beginning of this edutainment software.

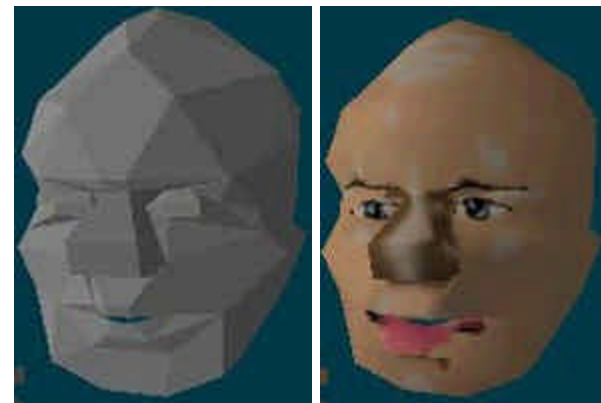
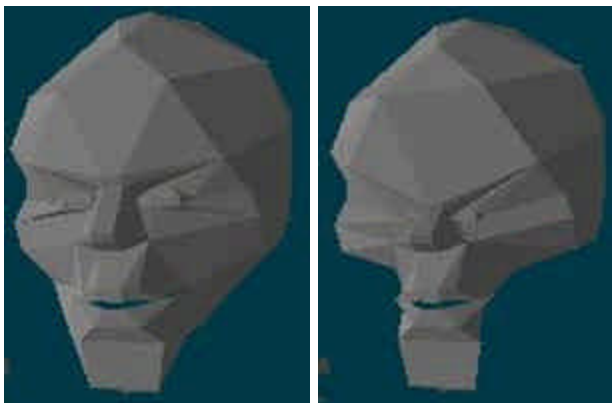
Look at the red marked faces(polygons) to get the improvements I did. 😊

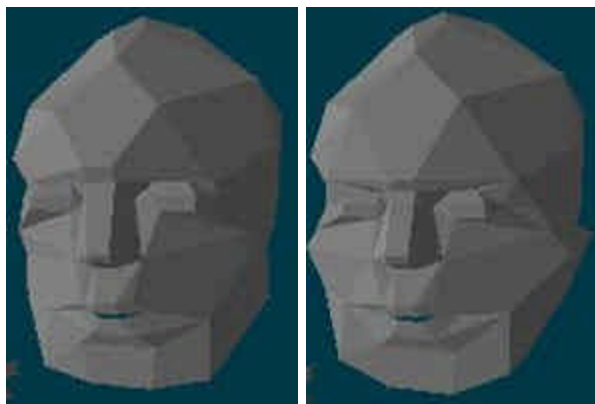


Head scaled up to a helmet...

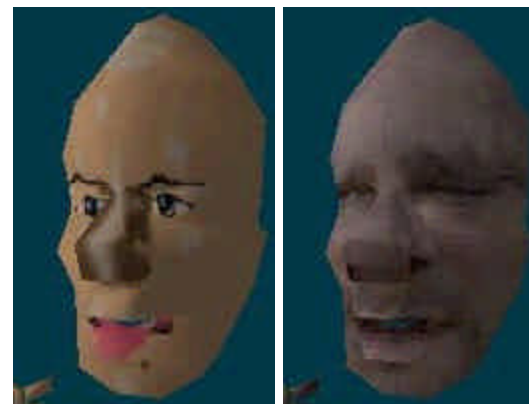


Twinkle twinkle little eye to show me if you fit for animating emotions with the mesh...





Single modification: Eyes and cheeks are simultaneously scaled.



Restricted horizontal scaled. Same shape, different skins.



What a lovely woman!



Same shape, first flat shaded, second skinned and goroud shaded.



What a simple made skin. Do you like her face, too?

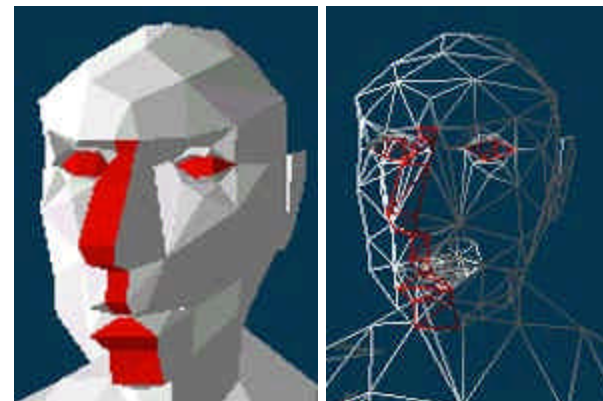


The first four pictures excluded all this pictures show faces of the same mesh!

That's the reason that I believe: take a given polycount, and you need for a human face you only need one mesh that you can modify with a few steps to get its unic characterization.

The following faces have a few polygons more; for example for the nose and the eyelids - and they are connected with the back of the head, ears, the rest of the body...

Her...





...and his face - with the same mesh.



To win the contest I have to build a new model from scratch! I thought about a model fully build and skinned and animated in one day. Don't know if the idea is totally mad.

First I will add pics with explanations of how to connect different bodyparts to a perfect body. Then I have to found out how to make fast and good skinmeshes, and how to paint them fast. Animating at last shouldn't be a problem - it's my favourite subject.



Just because of the eyelid...

[newpage]

Tutorial-alike - the second!

Wanna see how I made this head from 'lines of points', in MED?



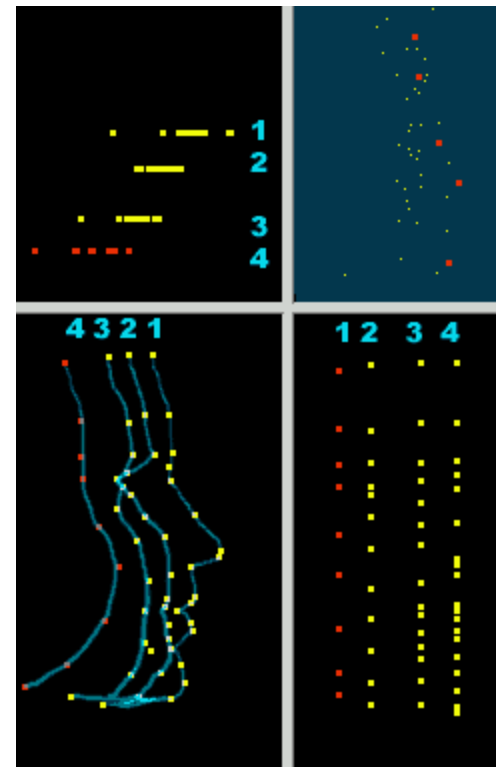
Here are the pictures, some self-explaining, some not:

The principle of simplification is to take the face from the **SIDEVIEW** as a landscape with counter lines or cross-sections.

1. First the 'horizontal' line along the middle of the bridge of the nose,
2. second the line between nose and eye,
3. third right through the eye,
4. then 'outside' the eye. We make only a one half of the face.

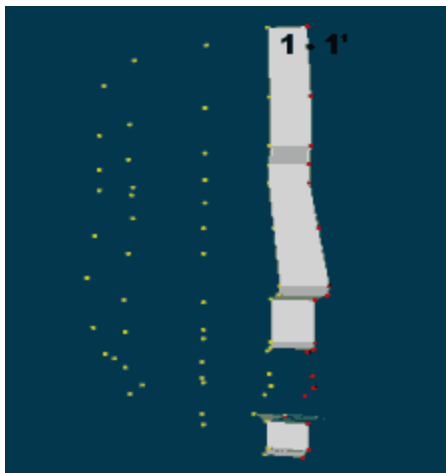
The disadvantage of this 'strategie' is that you have to have a good visual imagination and an artistical praxis in human proportions.

(The better and more intuitiv way for non-artists is the later explaint way beginning with the **FRONTVIEW** onto the human face.)

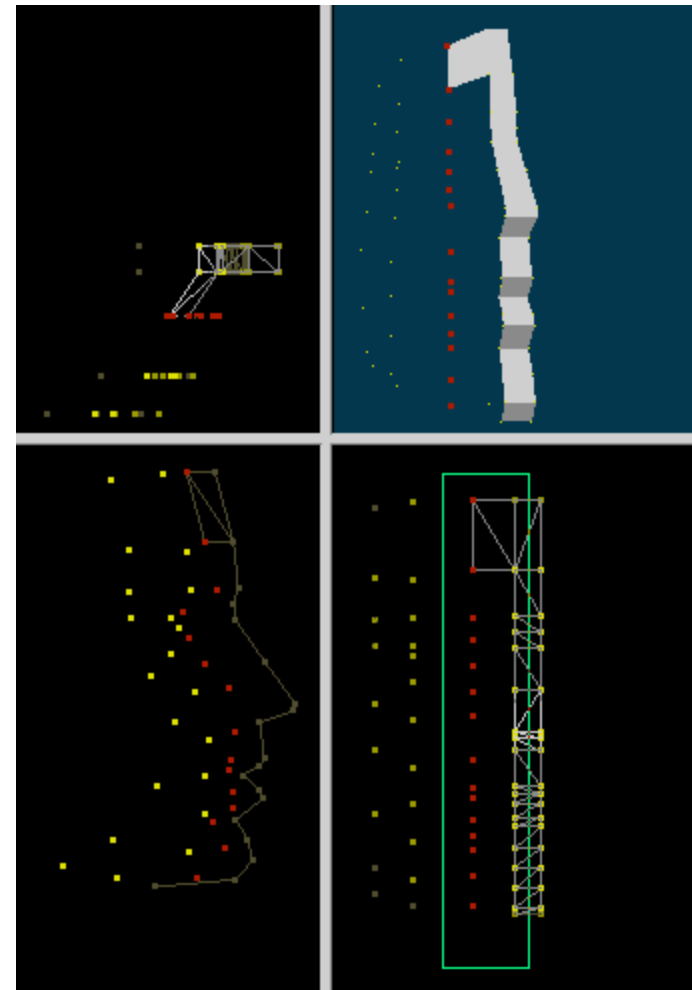


As one can see in the topview, I made the points in four steps as well the created points keep in line of the origin, so I shifted them with the vertical restricted move tool.

Because the 'nose line' gives the most characterizing shape, I draw it first and within this I decide where and much points have to be placed. The other lines should have a similar count of points for getting a more or less regular net of triangles.

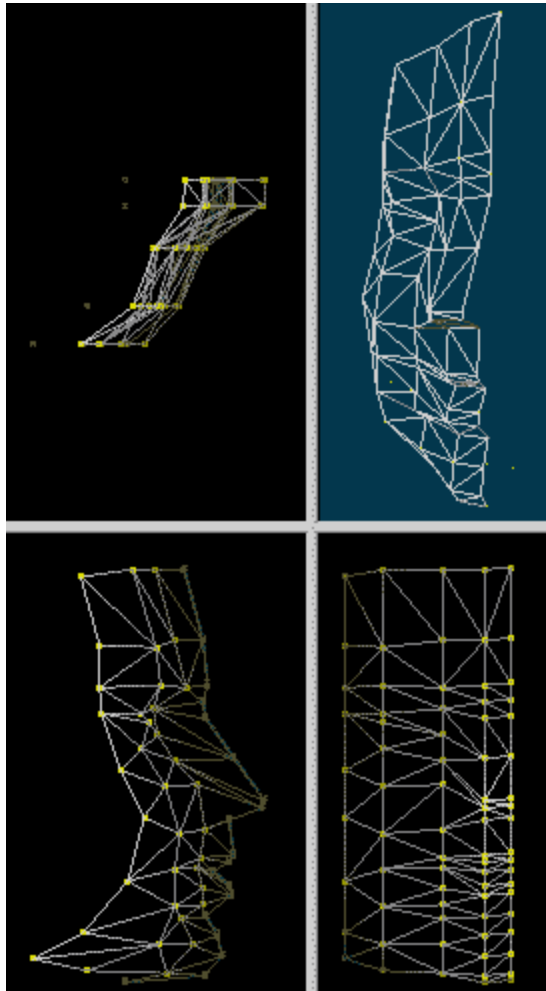


Doubled and shifted and connected middle line.



I mark the lines of points that I want to connect next, to have less

risk to confuse them with the others in the sideview.



It is not the easiest way to make a face in MED. I remembered an easier way - after I did all this work.

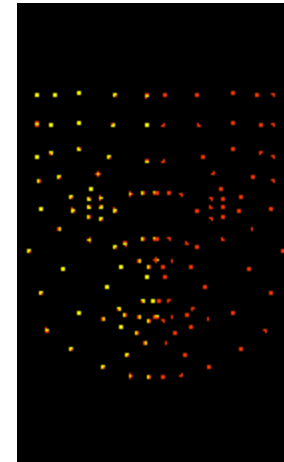
If you are interested, I can add the other pictures of the way from the half face to the head.

It includes methods of tweaking and of mirroring the half, sewing it with its counterpart, and connecting the face with the prefab sphere to get the whole head.

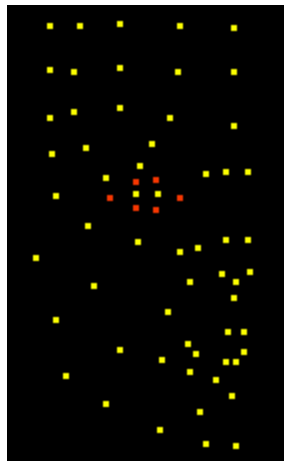
The Easier Method:

Pictures say more than thousand words 😊!

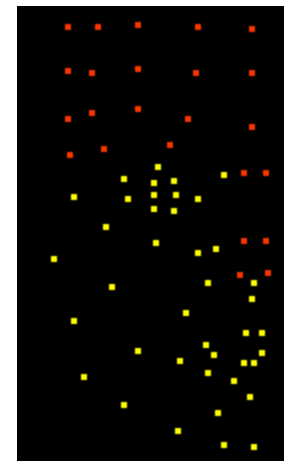
The pictures with points are not substantial different, they shall visualize what the marked points are for.



Start with the eye. I placed the points in the succession of how good I could imagine their places.

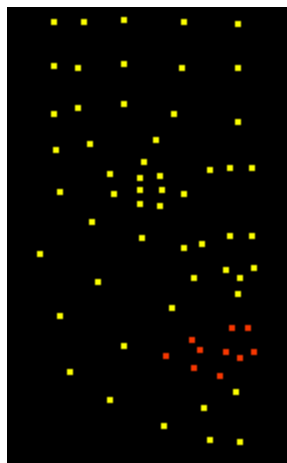


Then the bridge of the nose and the forehead.

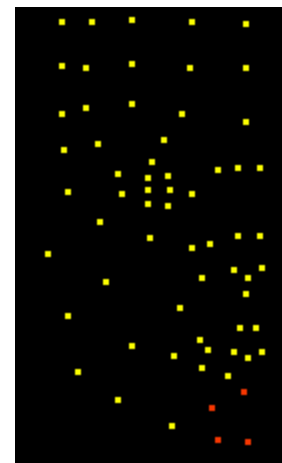


Mouth.

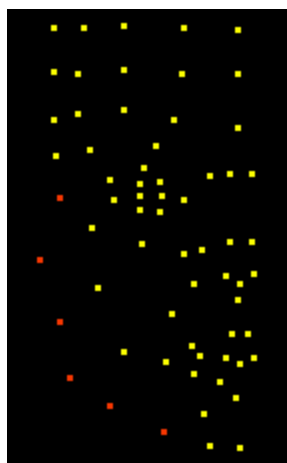
Chin.



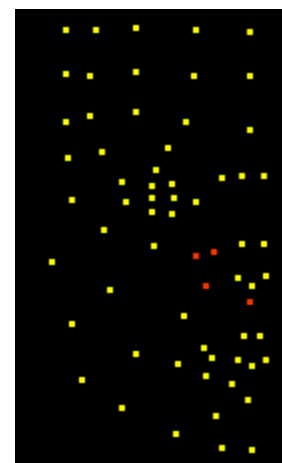
Shape of the face's 'rim'.



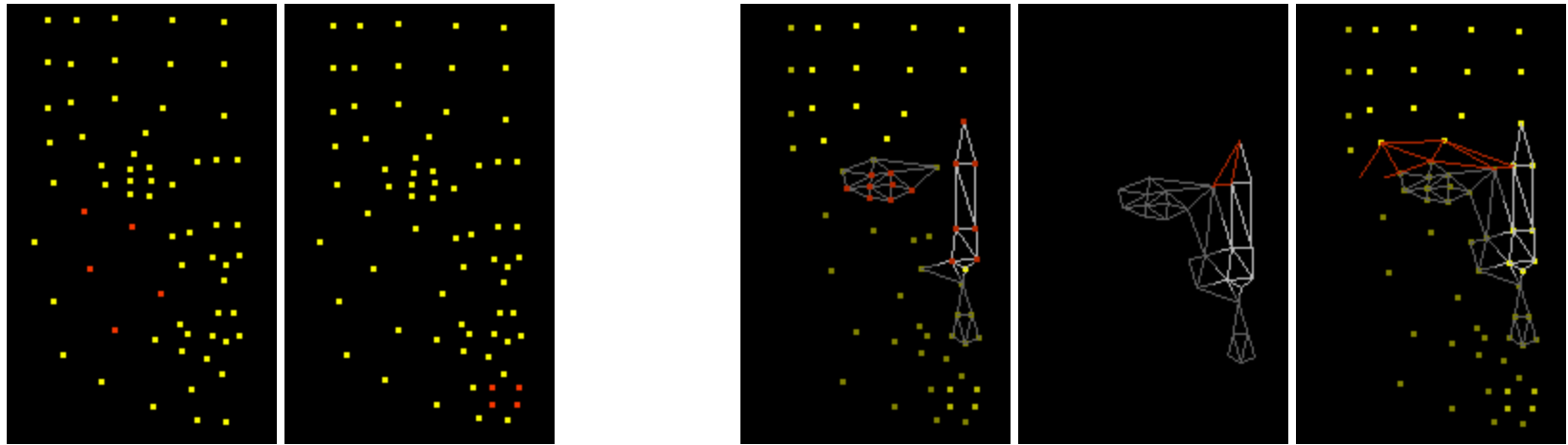
Root of the nose.



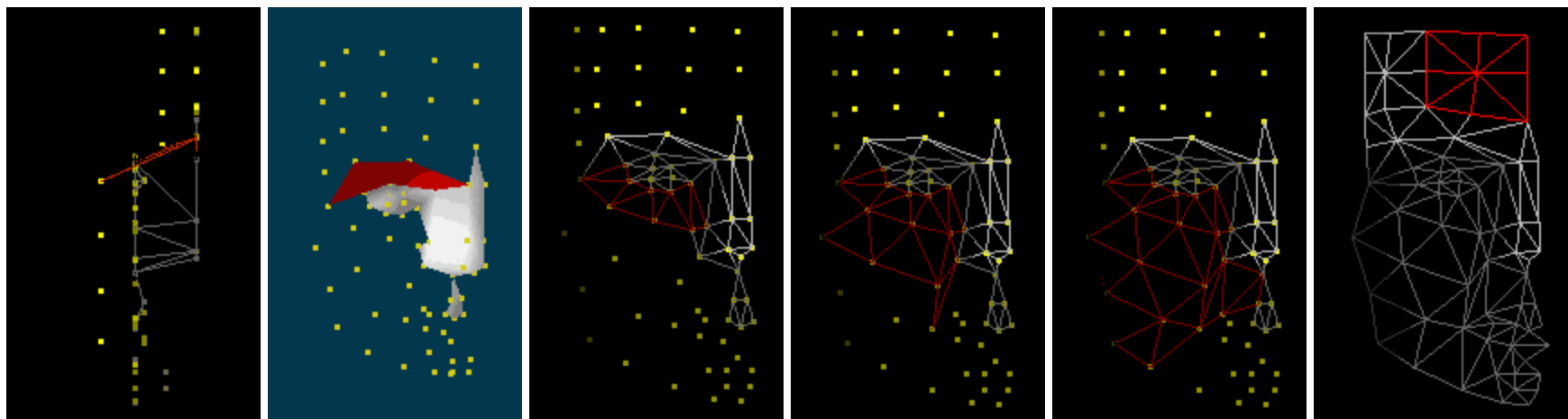
Cheek points between nose and 'rim', well placed to get a reasonable net of triangles.

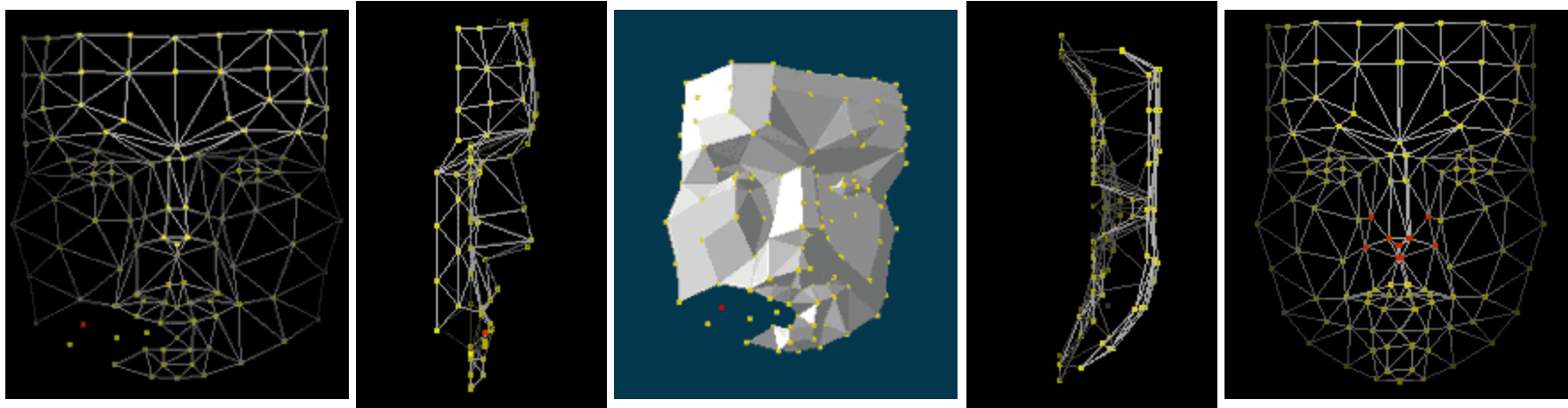


I build the triangles in the succession of how good I could image their places as I did before with the Points.



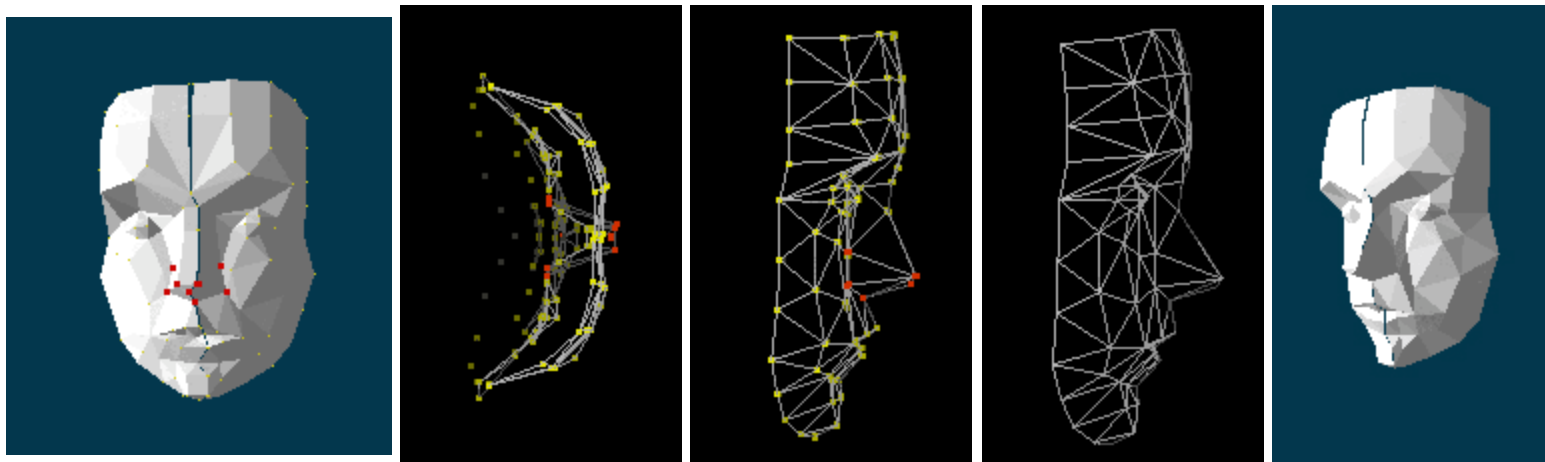
To get an early impression of how it looks I shifted the different parts relating to their heights (the face taken as a landscape). Only estimated, not absolute places!





The 3D-VIEW shows that there were not enough points in the area aside/under the mouth; I had to integrate some more.

What you cannot see: the half face had been doubled, mirrored (flipped normals) and after some tweaking of the single points with the move tool and turn tool. The second half has been deleted and through doubling, mirroring etc. replaced, to get a symmetrical shape.



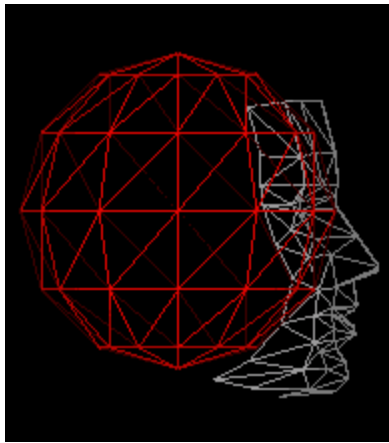
[newpage]

Tutorial - the third... hm... fourth?

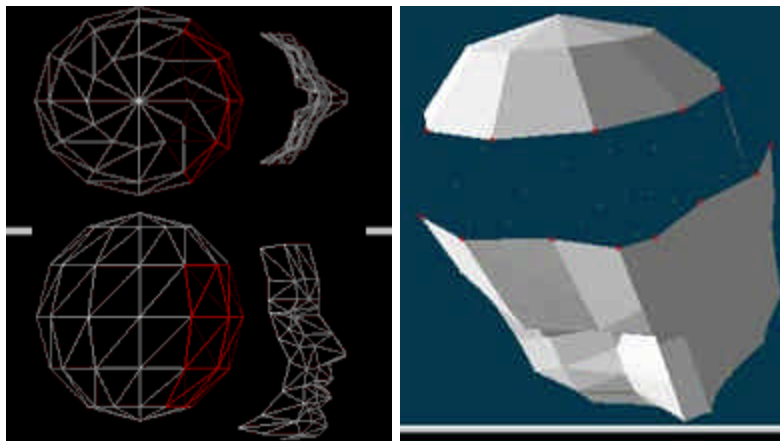
ADDING A BACK TO THE FACE

Again papering this thread with pictures 😊

Add the sphere from the toolbar:



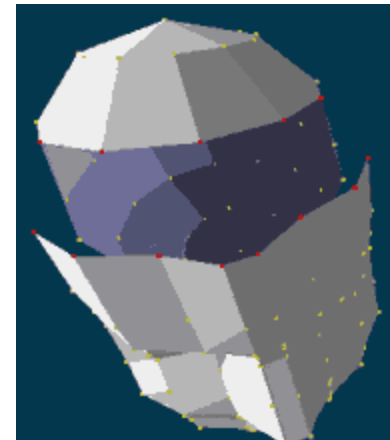
The distance makes it easier to 'sew' up the face and back with triangles. In triangle mode I choose the polygons that are to be replaced by the face.



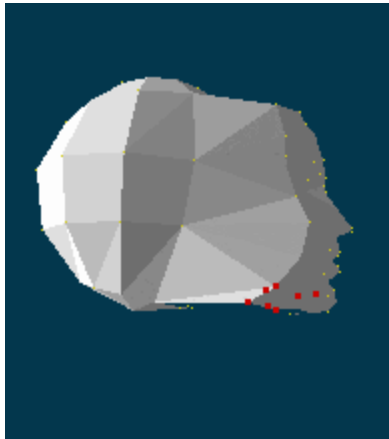
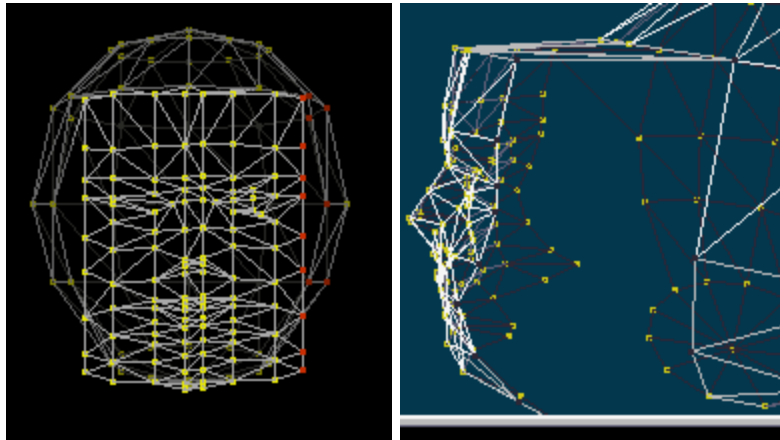
O, it's too near. 😬



Every time I have to sew, I mark the relevant points first.



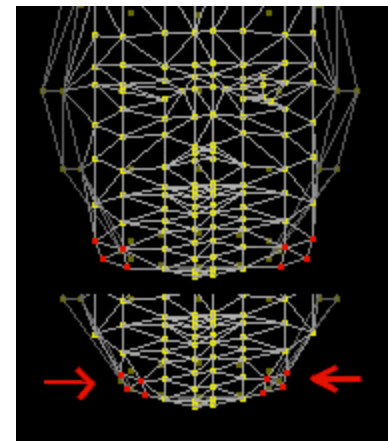
Same here.



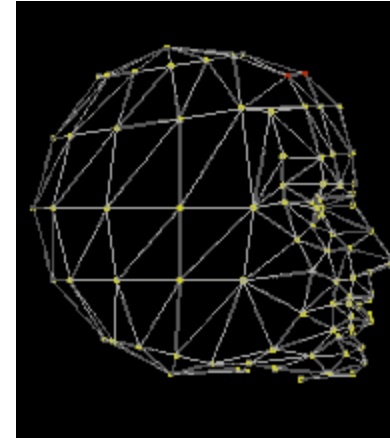
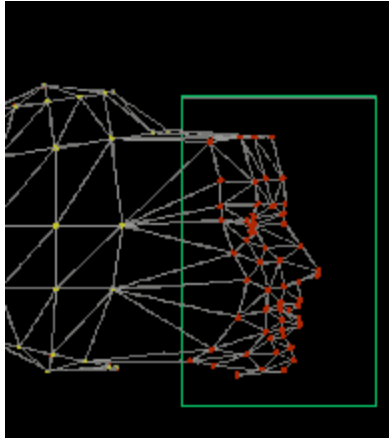
Tool Tip: Multiple Selections

Do you know that if you hold the control key, you can add marked points (or in the triangle mode triangles) and unmark single points??

A little correction at the back part of the chin(jaw?) with scale.



Again the distance between the now already connected parts is a benefit. There are small modifications at the sphere part to make it fit better to the face.



Although the parts are fully connected there have to be tweaked many details.

Tutorial - the... next! - TWEAKING

The Eye

At this picture try to find first the extruded faces, they are not the actually marked ones. Extruding means not to double the marked faces, it means to add faces between the marked and the faces around them which are connected to them.

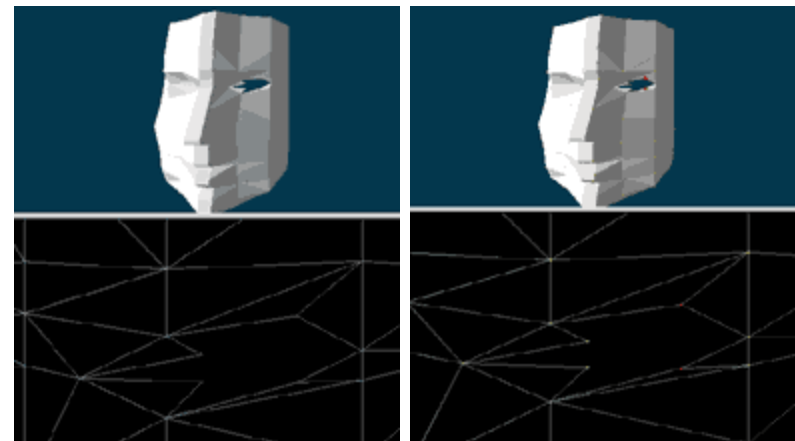
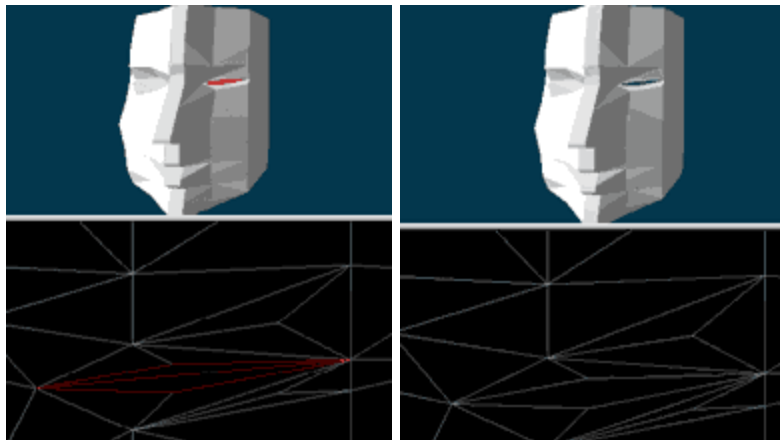
Uuuh - I hope, you can understand it. The pictures are not all that precisely as they should.

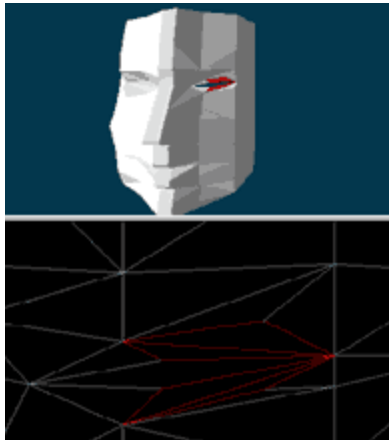
As you I did this before I added a back. First I marked in the triangle mode the faces, that I extruded and down-scaled.



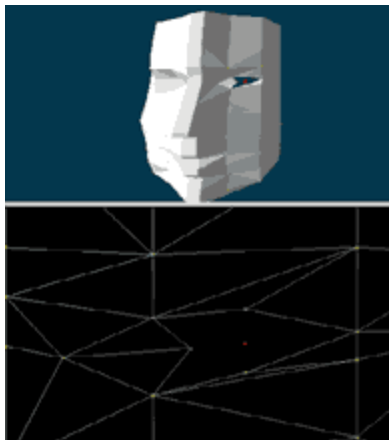
I weld the points of the somehow 'free' triangles.

In this case they are far too much. So I chose in two steps (see the following pics) the faces that have to be deleted.

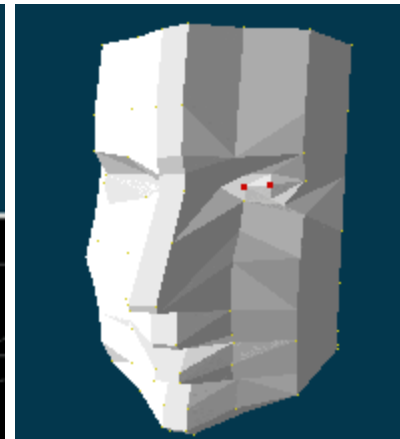
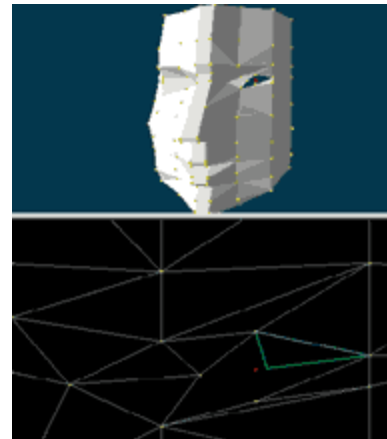




After that I copie and paste and move the resulting point. Why not creating with the point tool? Because it would not be in the right position relating to the depths of the view.



At last I triangle and move a little the points.

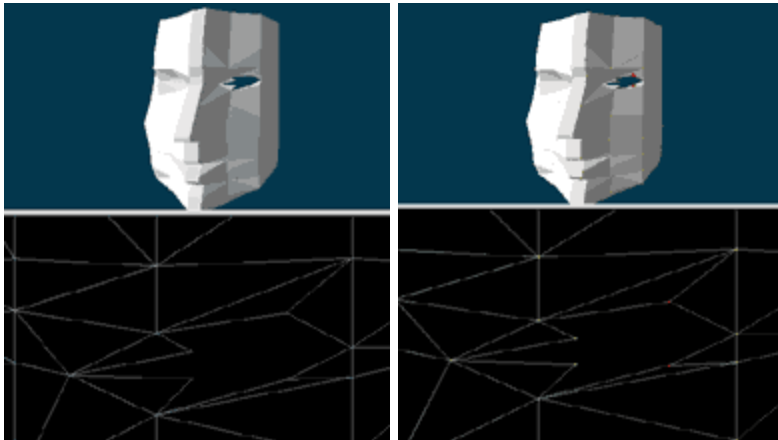


TWEAKING - the second

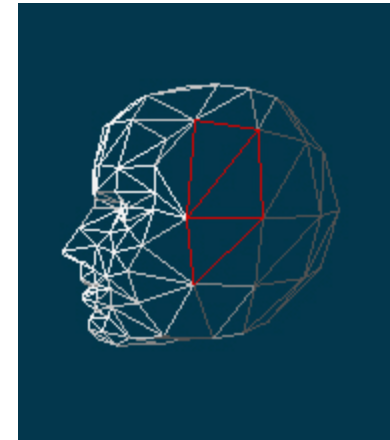
The Ear

I weld the points of the somehow 'free' triangles.

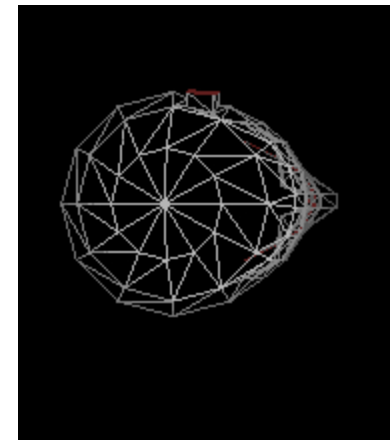
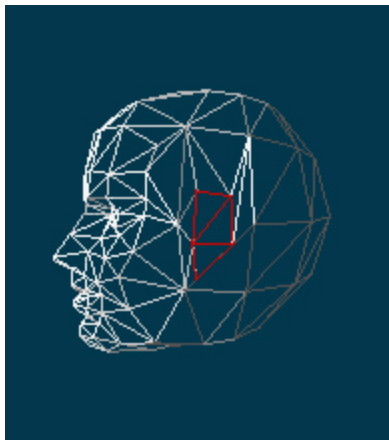
Marking.



Extruding and scaling.



Turning and moving.



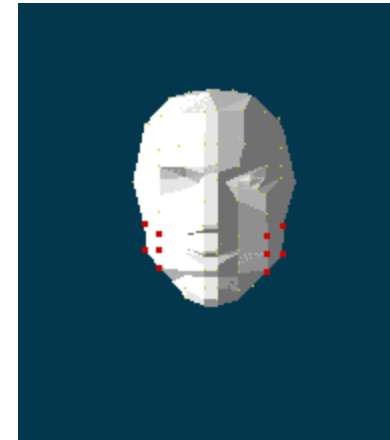
Not necessary faces to be deleted. But first I scale them horizontally restricted down to be invisible, then I delete them. After that I choose in the point mode their points to merge them. This way I get a plain surface between cheek and ear.

I did the tweaking only at one side of the head, and there is no reason to do it twice.

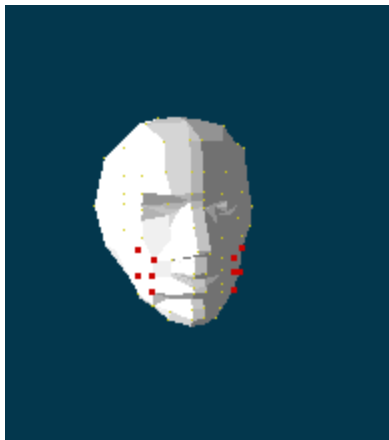
I modified the cheeks.



Both with restricted scale in one step.

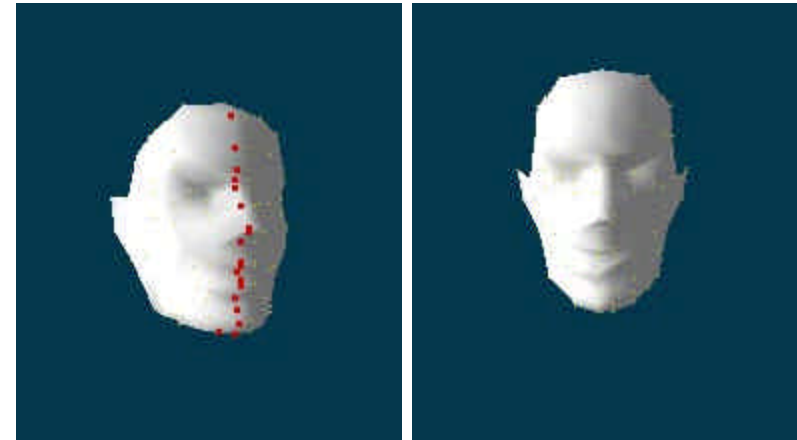
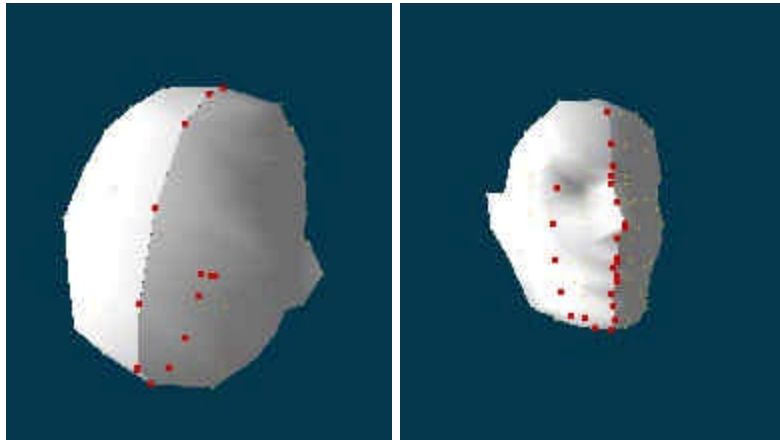


And then each side with the turn tool.



After that I deleted one half of the head. Be careful at the front side - the bridge of the nose and other things have no line in the middle.

If you put the doubled half (my recommendation: turn tool restricted to 45 degree in the somehow hidden[as explained in the first part of my 'tutorial'] settings window.) So, if you put the doubled half precisely at the other one then you can merge them at their touching points. In the 3D-view mode 'gouraud shaded' you can see whether it worked properly.



One idea was to make an 'instant model': sketch, mesh, skin and animation in one single day. The concept of the model has to be simple to get the task done in such a short time, but I would make fun, somehow like racing. 🏁

Okey, there is not even a sunday in sight were I have 8 hours to get such a challenge started.

So I thought, let's work two hours on a model a day, ...hm... one hour - not realistic. Okey: one pic with explanations er day!...?

Let's have look! I did a few shots from work of a couple of days ago.

First, the result:

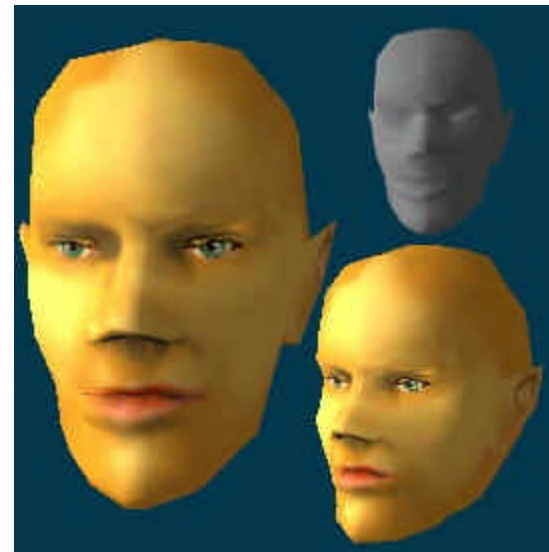
Tool Tip: View Switching

Did you already know that can hop between the 3D-view modes with F1, F2, F3, F4?



1) Any idea what reason for such a mesh?

I cannot resist to show an 'inbetween' result, things like this are inspiring! Could be something like a pharao or an alien priest.



You can compare the gourad shadowed view of the head with the skinned view - that should give an impression of the influence of painted

shadow in relation to the shadowing of the game engine.

There are better skins, shure. But, its not too bad to learn from.

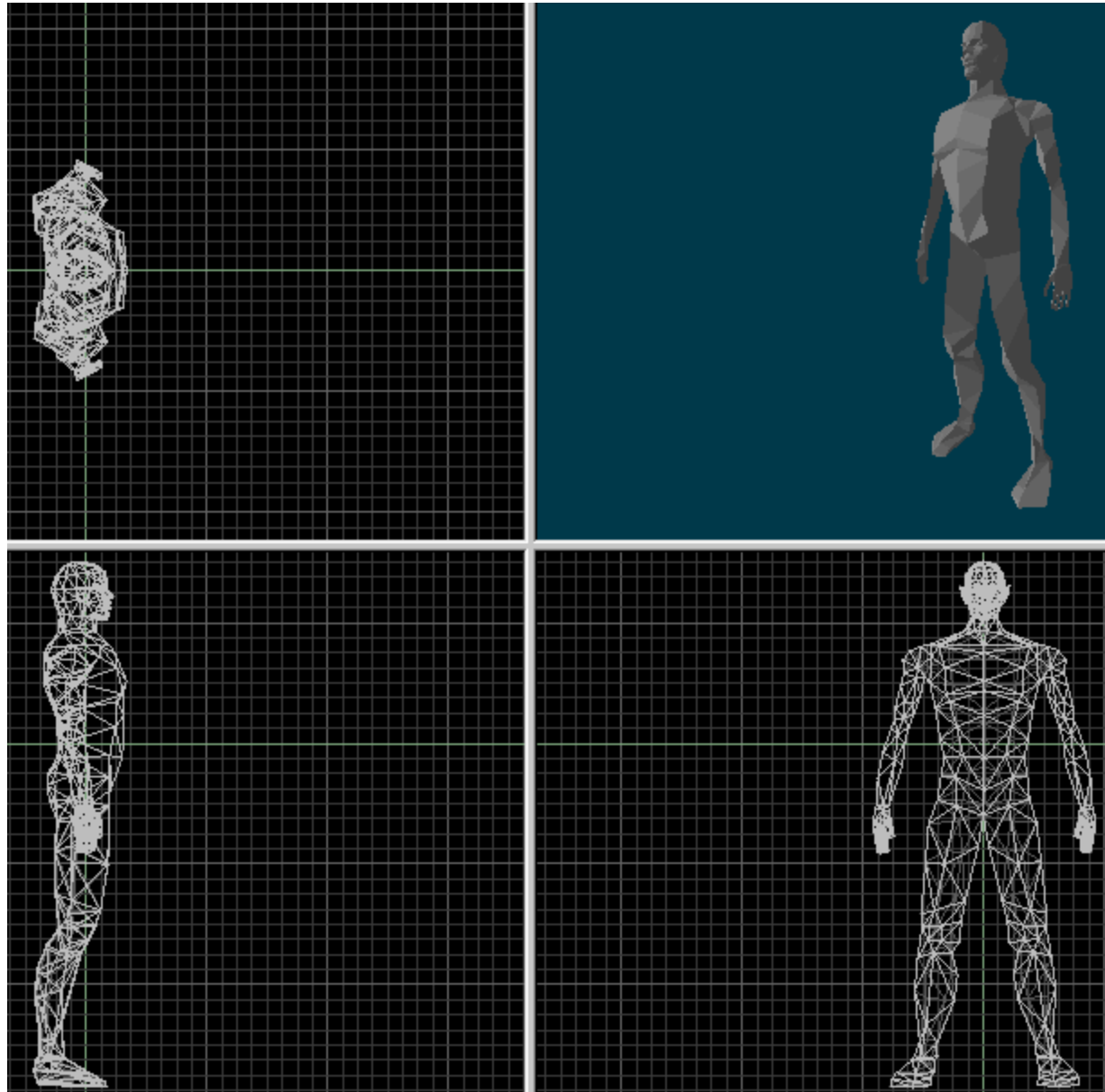
Okey, its time to go to bed. Next more!

I just tried this a moment ago in MED worked fine made a simple model. then add a frame (frame2) move the mesh around break a seam into it. (i just subdivided a few faces till i made a gap along one area then deleted all the extra faces and verts to cut the mesh open)

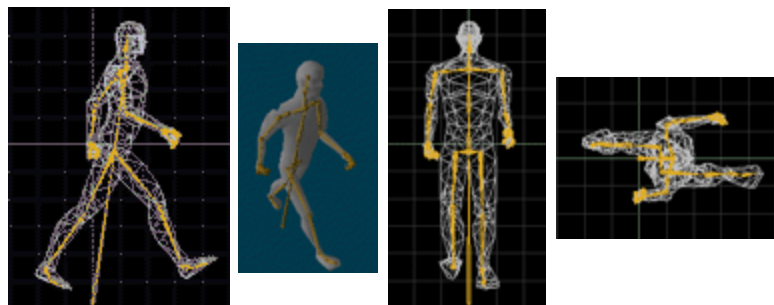
now just flatten the mesh out an mdl skin works fine for this now vs grabbing faces

paint it up , relaoded it back in then just delete frame2 if happy with the skin. skin still stays intact for frame 1

Wanted to add some pics of my state of... (no idea how to call it in english 😊- even have no idea how to finish such a sentence in german)...'work'?



Not the nicest one, but one 'with a manly chest' (quote, bupaje) 😊, but - experiences to give report about.



Possibly the first bone animated model pictures from MED in the forum! 😊 all of it looks great (far better than anything i can do yet) but for the tilting as he walks. instead of a tilt left and right the normal human body walk is a slite bouncing motion from the hips up. as steps forward the hips drop slightly and then raises to its full hight upwards as the leg is straight under the torso.

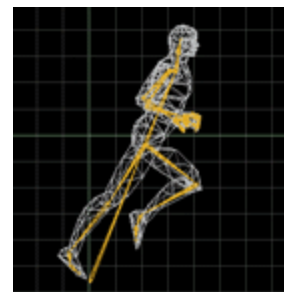
hips and shoulders also have a slite rotation with the swing of arms and legs. as right leg goes out hips rotate counterclockwise, left leg out rotate hips clockwise. same motion with shoulders and arms.

(women that want to show off thier 'bottems and tops' exaggerate this hip and shoulder rotation. look at russels sig pic. to get her 'front' to swing mroe she windmills her arms behind her making her shoulders swing more)

hehe sorry , studied art allot on my own when i was younger. Human motion was part of it to understand drawning people in motion.

Another not perfect animation:

Since I found a quite simple way to make animated gifs out of MED,
I can't get tied to post gifs 😊



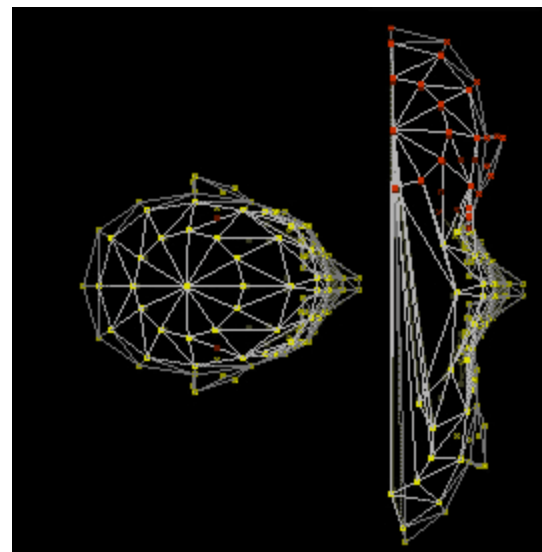
[newpage]

Skinning

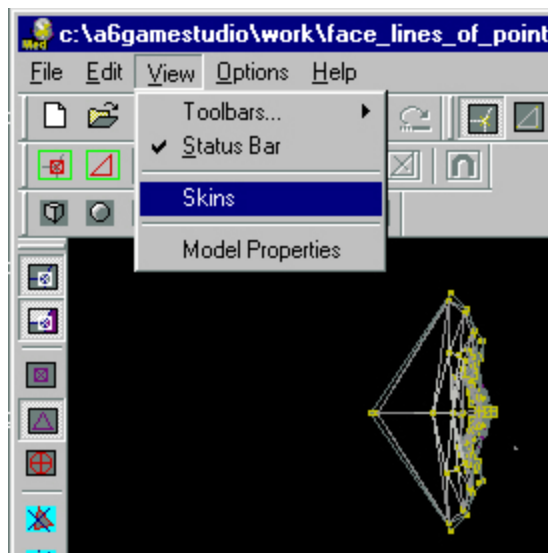
I want to add some pics and explanations about skinning as far I have some experiences.

Add a frame. It is a special frame to deform the model to be copied comfortably onto the skin image.

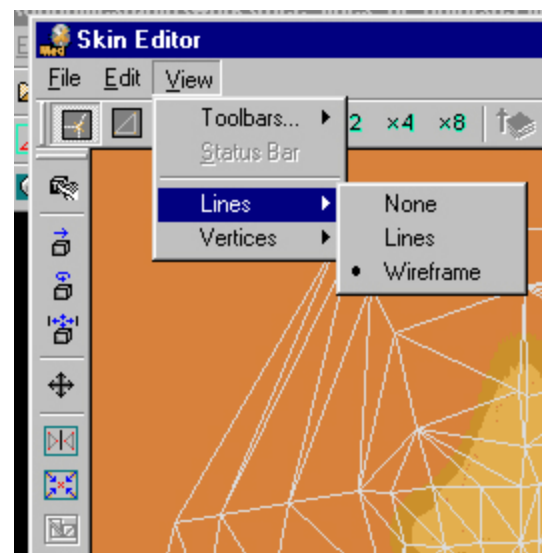
Then mark a side of the head to rotate it until it is parallel to the (human) face. Same with the other side. There is only one 'row' of polygons left at the backside as you can see on the picture. With 'Edit' --> 'Move Frames...' you must put this 'skinning' frame at the first place, because you cannot create a skinning mesh in the skin editor from another frame 'place'.



Open the skin editor:



In our case we have the single head so we can create an MDL mapping.



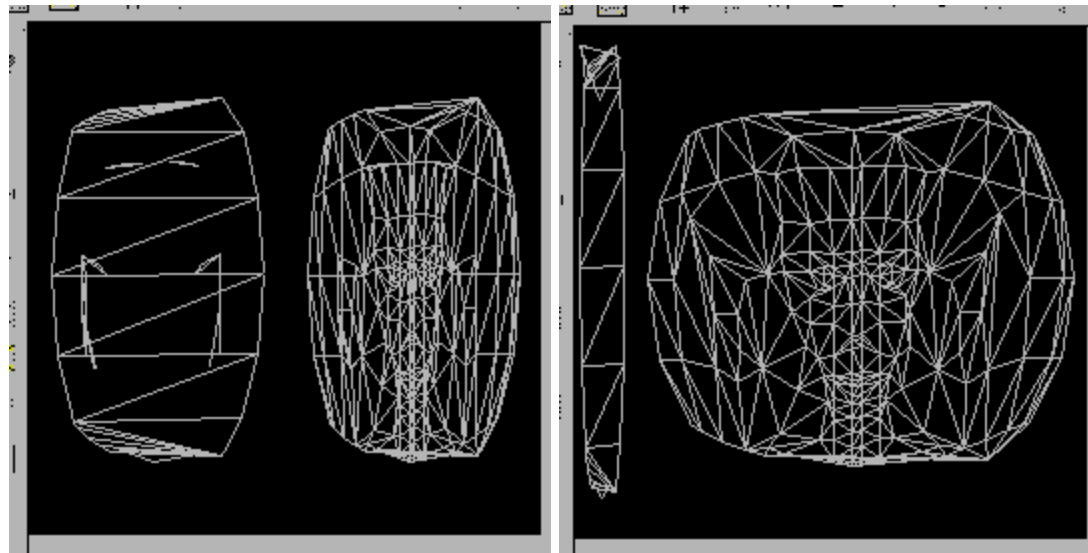
'View' --> 'Lines' --> 'Wireframe' gives you the chance to see what faces actually are marked. Don't forget to switch to the 'face mode' in

Normally we have the whole model: in that case we have to change the mode to 'face mode', choose 'Options' and --> 'Sync Skin Selection'.

And in the Skin Editor we have to choose Create MD2 mapping

Here the result of our MDL mapping:

Left the backside, right the front. The back shows parts of the ears and other faces of the frontside this has to be modified in the 'skinning frame' to get rid of the seams that you would get exactly at these faces. Repeat marking and creating the mapping



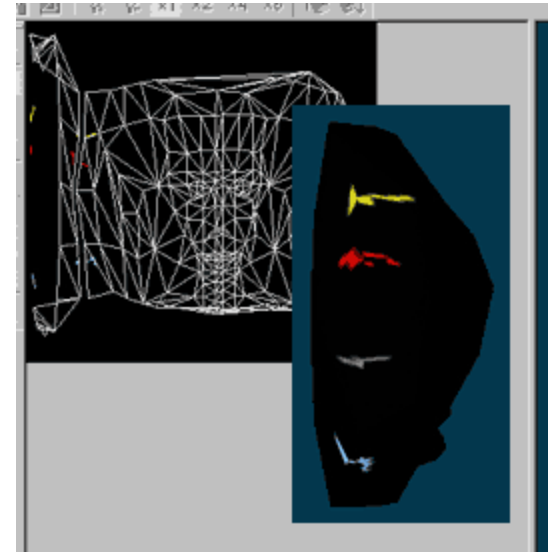
Compare the last two pictures to understand the difference and the similarity.

What I forgot to show and mention is, that in the 'skinning frame' you have to turn also the upside and downside, so that they are parallel against the view.

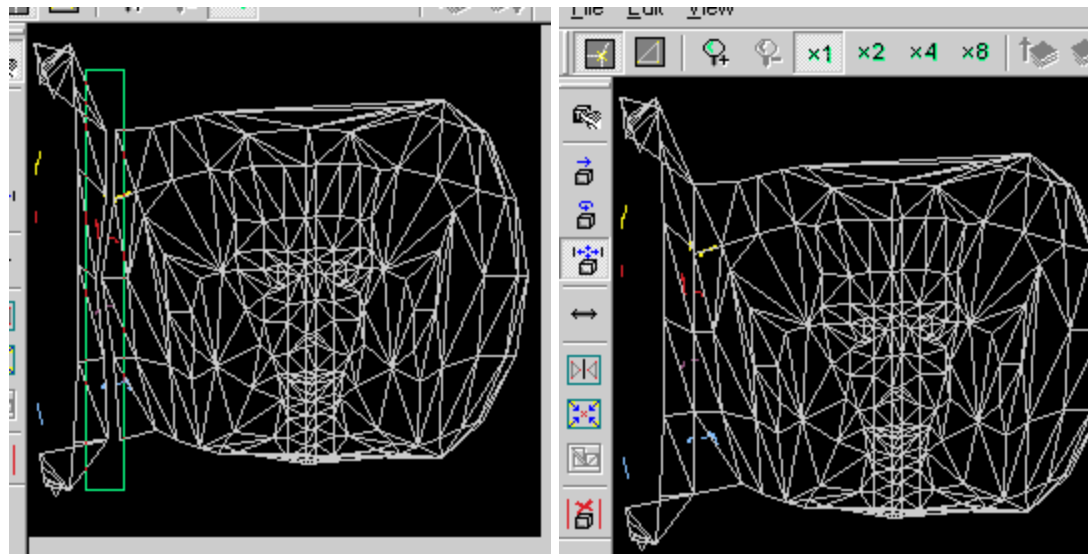
The ways in this tutorial(s) might be not from the sort you would like to use, but in its descriptions are some hints on how you can work with the MED generally.

In my not very organized way of making a 'skinning frame' of the head, I had to put together two meshes to get one plain for the back of the head.

To know where the meshes are connected on the 3D-model, I painted in the skin-editor on its 3D-view with the pen tool. Only short draws to get known what polygon of the forehead is the neighbour a polygon of the back. I hope a view on the picture makes it clear.

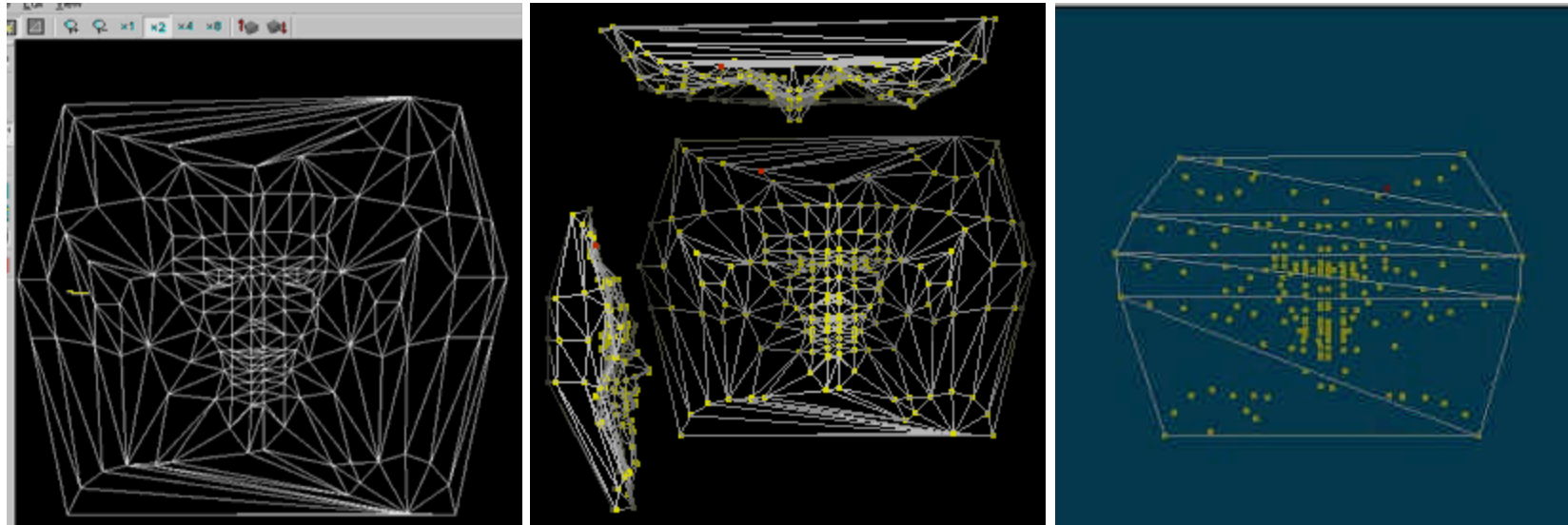


To put the polygons together I mark in the 'vertex mode' the vertices, choose the 'scale tool', restrict this horizontally with the arrow button, and pull the borders of the polygons close to each other.

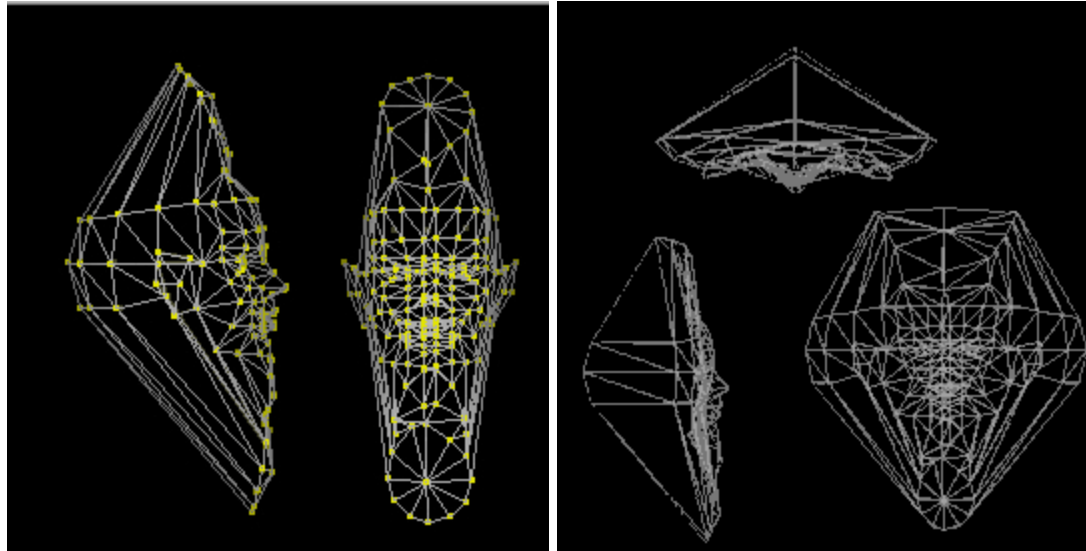


On the following picture you can see the 'skinning frame' from all 2d-views.

Every side (up, down, left, right) has been turned to the front to get one seamless plain for the texture.



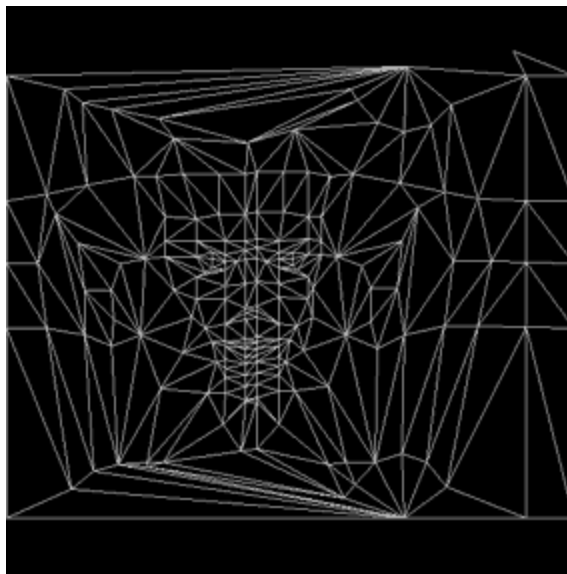
The last two pictures show a more organized way to layout the skinning frame. The difference to the former method is only that I started first the upside and down side to the front and afterwards the left and right side. This way the middle of the back would be still connected in the layout on the bmp. Better to paint a sign on the back head - a place you would look on continuously if you use the model as player in third person view. The other advantage, it is totally symmetrical.



First the resulting image of the uv-mesh.

To get a proper mesh the image size must be big enough. Skin Editor: Edit --> Resize skin...my choose: 1024 x 1024.

To export it as an image - to paint on it the surface - you go in the Skin Editor: View --> Lines --> Lines; File --> Export --> Current image to Bmp.. , and save it.

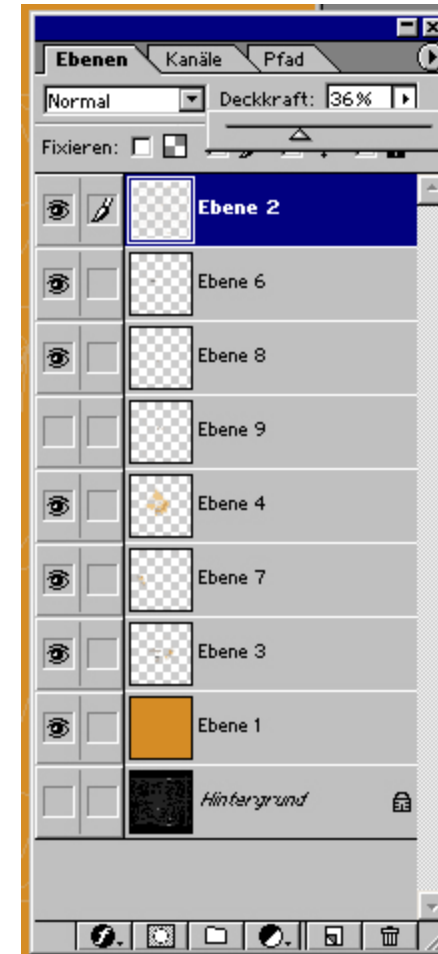


Painting your Skin

After that you open the image in the painting programm of your choice. Normally there is no need to close MED. To control the paintings you have to save the image and import it into MED. In the 3D-View you can get an early impression on how the surface is 'integrated' in the models shape. That is not the same impression that it makes in a level. At least you should test it in a level.

I took Photoshop to work on the skin. The advantage: you can add several plains ("Ebenen" (I'm german, so the names in the picture are german)). One plain for the mesh - you can choose the black color and remove it. There should be a function 'replace color'. German: Bild --> Einstellen --> Farbe ersetzen..) Then you can copy that and place it in a plain above the other plains: because the black is removed you can see through the mesh onto the ground color of the face, the shadow, the highlightings and other details - each on one plain so that you can modificate one of it without damaging another

one.

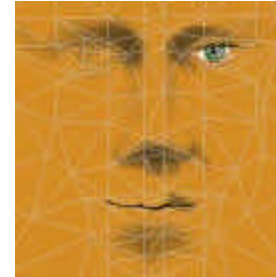


The view through the mesh onto the ground color of the face, the shadow, the highlightings and other details.

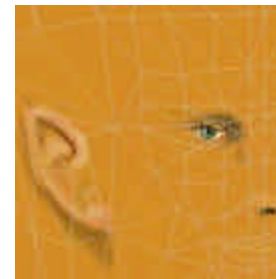
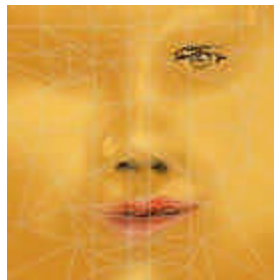
The shadows (also the beginning of an eye - sorry, for mixing it up a bit - I was in hurry. 😊)



The highlightings (and other details). Mainly you would darken or lighten the shadows and highlights through regulating the transparency of the plain. To paint you choose a smooth brush depending on how large the surface should be highlighted.

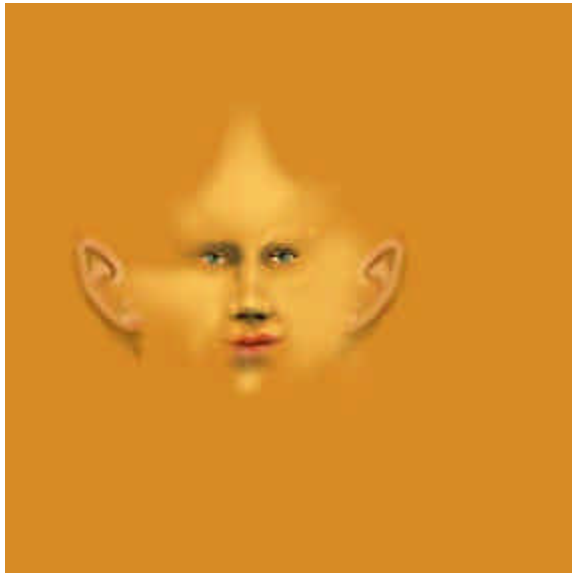


I copied and mirrored the eye and the ear and other things, as to be seen at the ear: sometimes it is easier to paint both, shadow and highlight, in one plain - also did I give them a little bit pink.

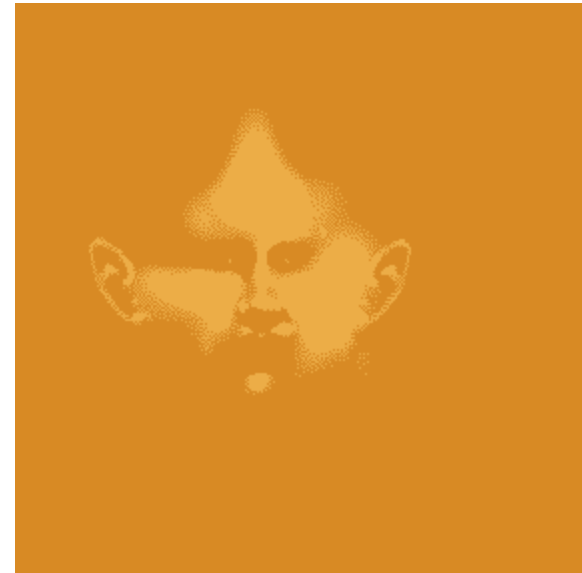
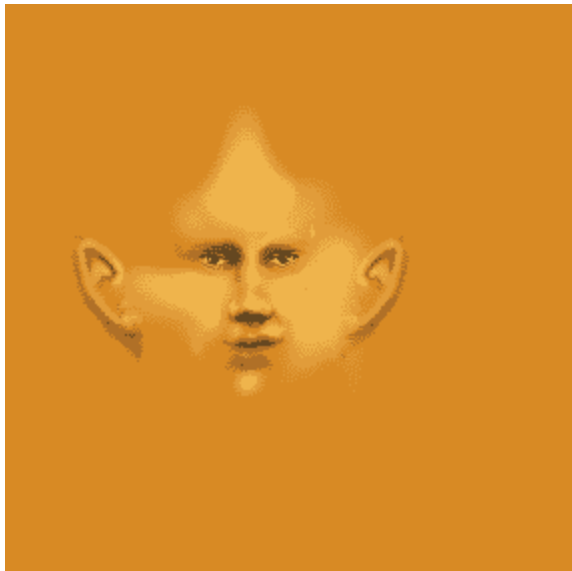


I also copied and mirrored the shadows, but I didn't make both sides identically, because I think it looks more lifelike, when there are differences.

At last I experimented with 'Saving for web..', I converted the image into a gif with two colors. I expected a cellshading like impression ...



...but three colors fit better:



Here its look-a-like in 3D:



[newpage]

How to create a body in MED

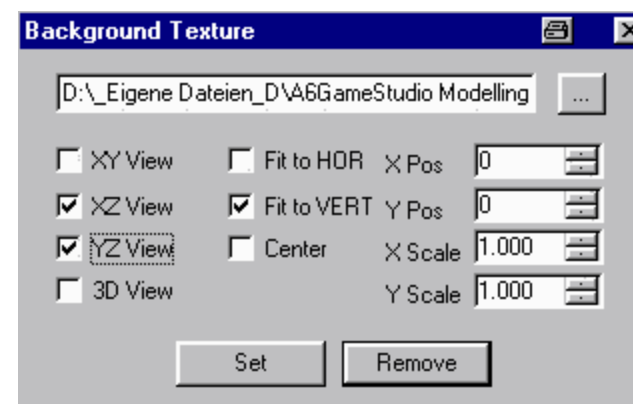
May be, a very difficult chapter. Replies of what is unclear are wellcome!

I made a fast drawing of a body in paint, one of the most simple and most restricted painting programmes. It is only a rough scetch. Better - I learn every step I do in model-creating - you make a precise image of the concrete model you are going to create.

Tool Tip: Background Images in MED

To get benefit of the whole picture in MED as background I choose Options --> Background Texture and: Fit To Vert. As you see at the picture.

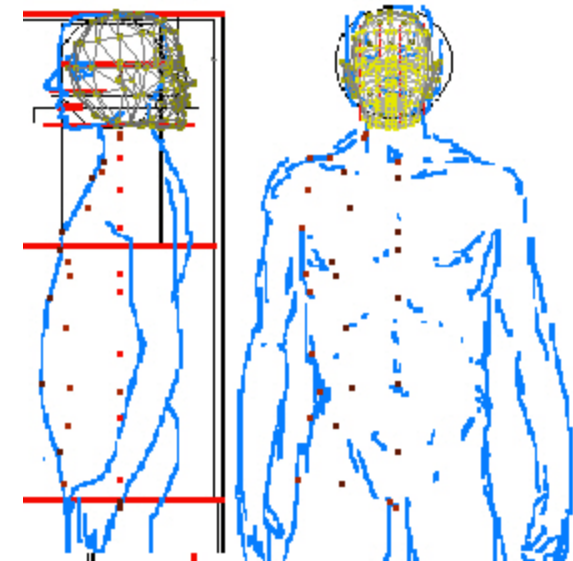
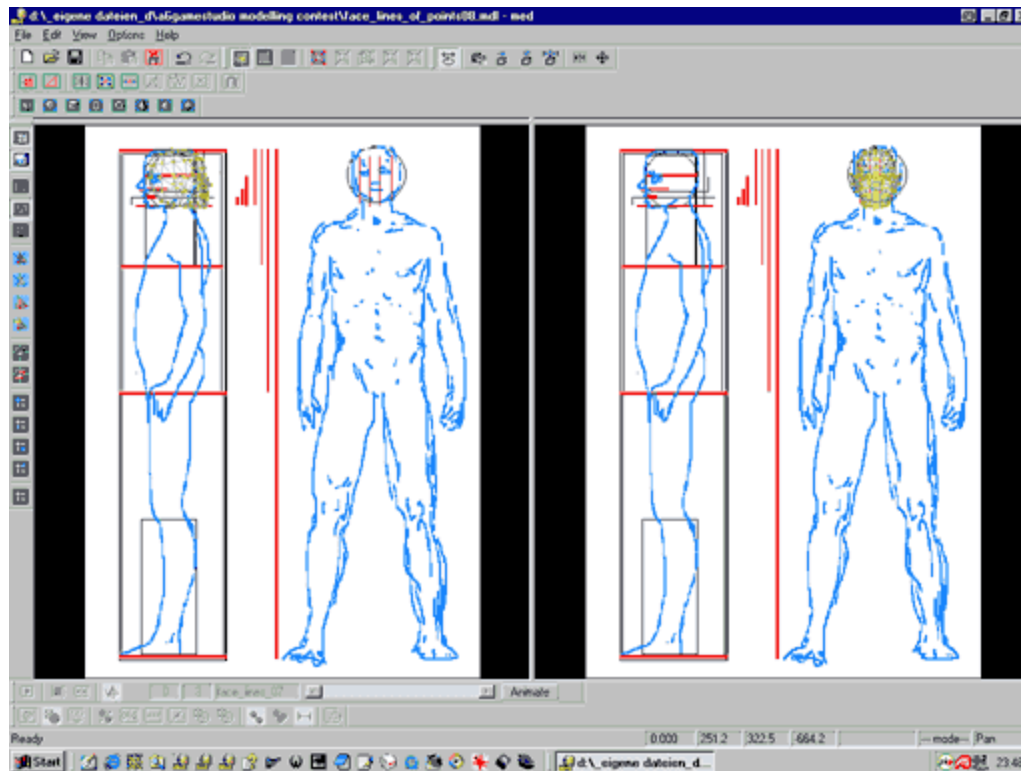
You have to fit the view of the already made head with the background using the 'Position' tool; it is the button beside the 'Select' button.



The red points are the freshly created vertices - nearly same principle as with the human face. But: look at it again, one line of points are made in the frontview and one is made in the sideview. The line 'between' them is made in the front view and adapted in the sideview.

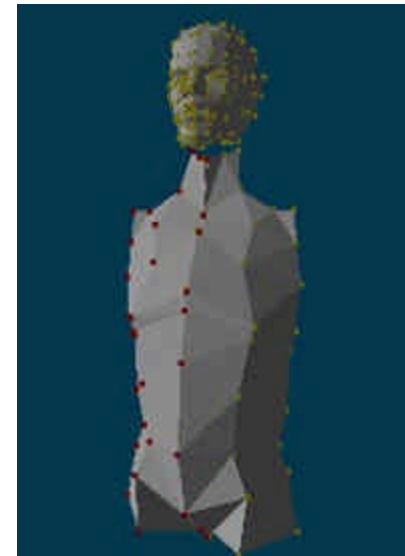
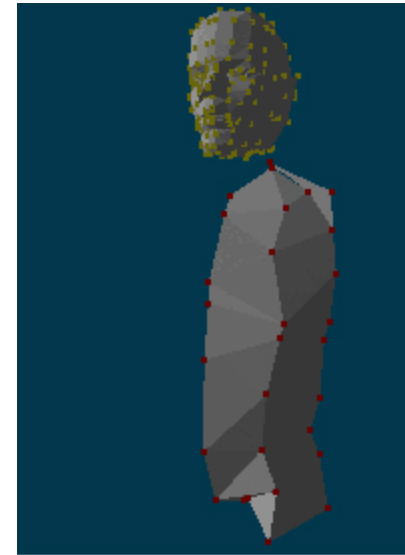
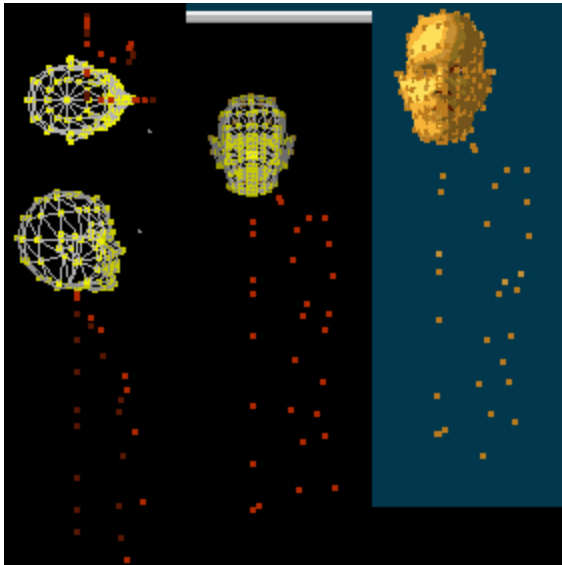
The red and black lines in the proportions are in the picture and they are only made to show a rough view of the proportions of humans.

The borders views (here the 2D-views from side and front) can be shifted with the mouse. 🌐 Very new insight, isn't it.

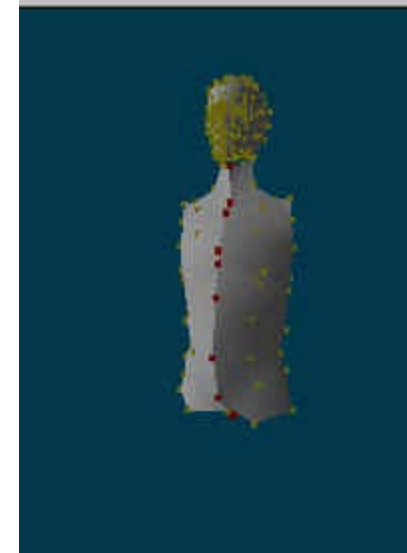


Already connected? That's fine.

The next picture shows it in the 'bird's view', the view from upside down: or the XY view. The important thing while creating lines of points is that you don't have points or meshes in their back or front because you mix it up hopelessly to get any control on what point has to be connected with which...

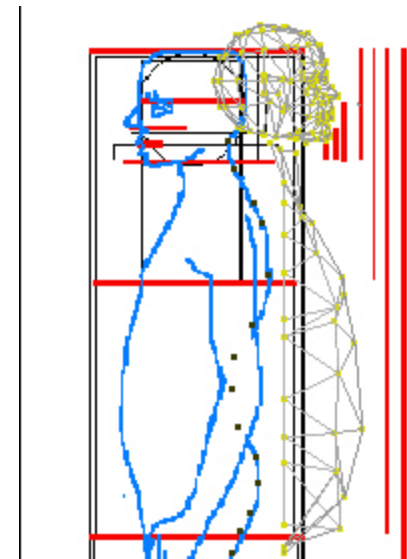


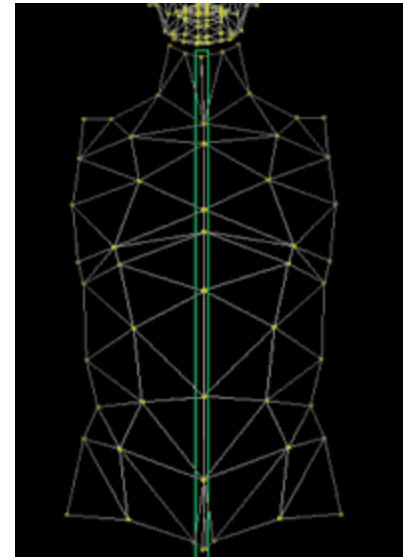
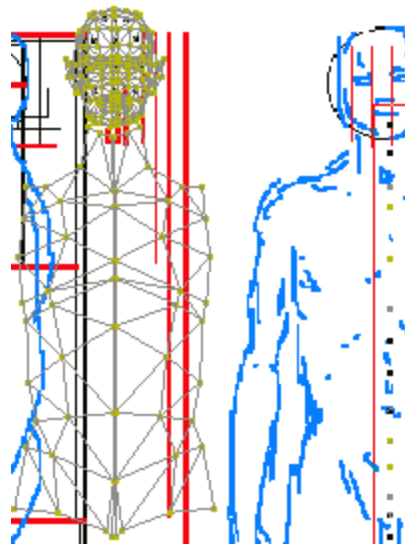
The rest is as already published: copy, paste, mirror, flip normals, turn move, merge to get common border points.



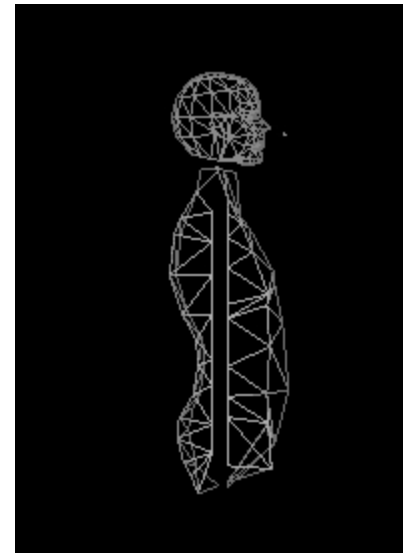
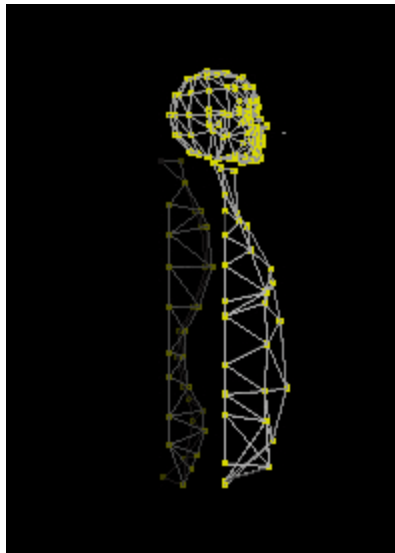
A backdraw of my picture, I should have mirrored it in paint - now I had to turn the body related to the head that looks to the opposite.

The important thing while creating lines of points is that you don't have points or meshes in their back or front: here practically seen in the pics:





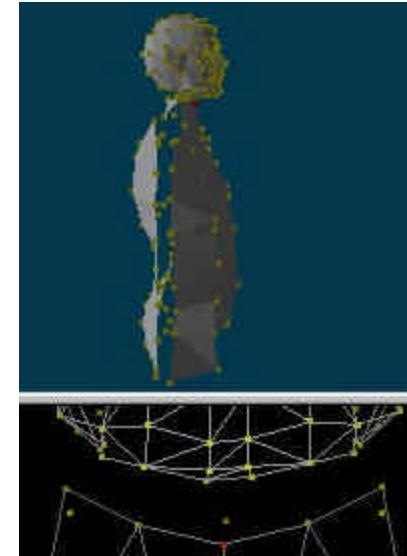
The body has been made out of quaters which has to be moved, turned and so on, to fit properly.



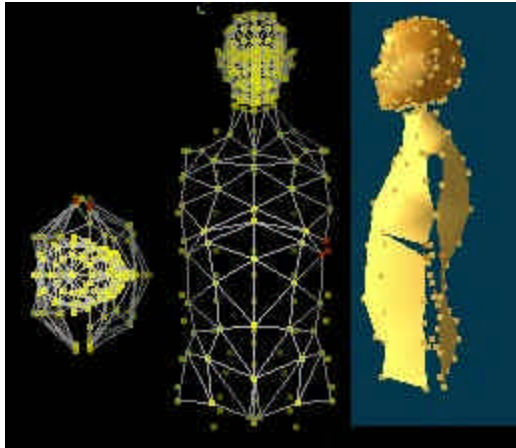
The down part of the following pic shows the gap between the head and the body - some tringles of the head



are to be removed and a lot of careful work to connect them - what I don't document here in its details.



When you connect the front and back part of the body, you have to be aware of how many points they have at their borders. In this case I removed one polygon to get them properly connected. Don't forget: triangles inside the model are useless, so leave a hole for each of the arms and legs.



The hole beneath the shoulder where the arm has to be connected later has been adjusted.



Scaling, moving a bit, to get the chest more hero-a-like.

