

## CoDUO MP Tank Analysis

StormtrooperGER gives his analysis on a UO MP tank

I want to analyse how an UO MP vehicle is build to help people understanding it...

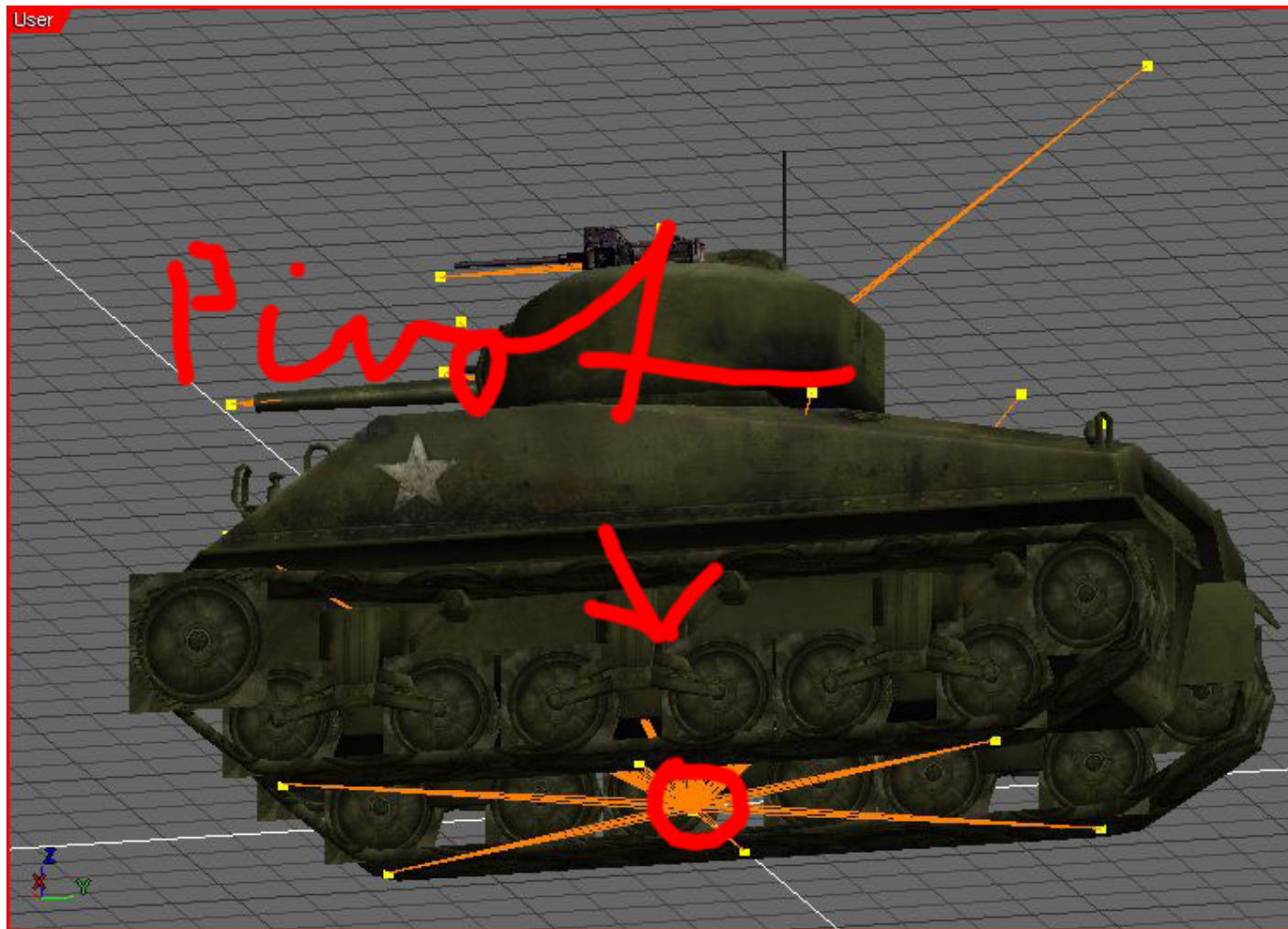
I used the Sherman model in the UO "sdk" for it, It can be found here:

`model_exportvehiclesunited stateslandshermanMP_sherman.XMODEL_EXPORT`

So open this and first you see the model and many bones



Ok let's start analysing. The pivot of all meshes is where all bones meet (that's under the tank)



OK now we have to look out of what parts the model is consisting.

#### **Necessary tank parts:**

- treat\_high (The most complex part with wheels and the chain)
- tank\_high\_shock (Is animated when firing so the tank bounces)
- tank\_high (The main part of the tank, also bouncing when firing)
- tank\_high\_turret (the turret that can rotate)
- tank\_high\_barrel (the barrel that can be moved up and down for shooting)

### Additional tank parts:

- machg\_high (that's the secondary fire weapon when you are a driver bow of the tank)
- 50cal (The weapon for a second driver on the turret)
- ringbase (accessory)
- topparts (accessory)
- antenna (accessory)



### Complex part tread\_high:

This skin object has got 3 textures and is attached to 7 different bones.

The chain is connected to the bone "tag\_body".

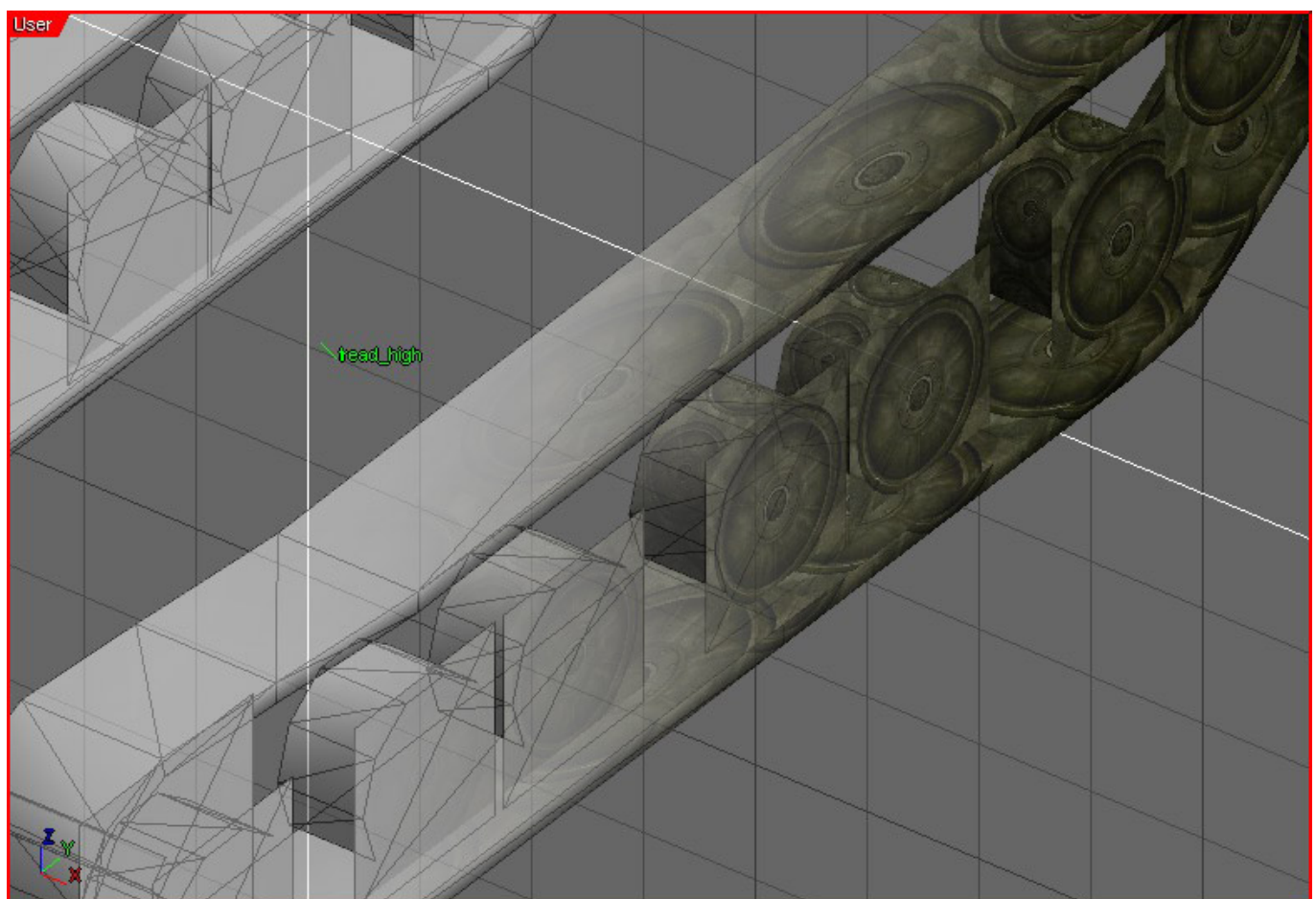
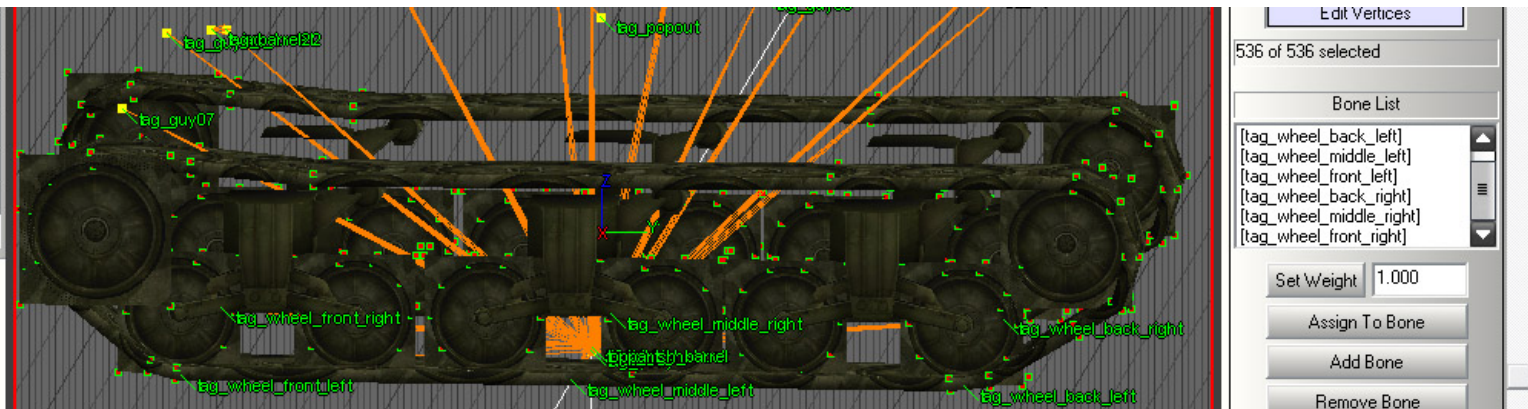
There are 6 bones for the wheels. On every site there are 3 and on one site 1 bone is for the front part, 1 for the middle part and one for the back part. On the Sherman 3 wheels are assigned to 1 bone.



Also, this mesh uses 3 textures,

- `tread_metal@v_us_lnd_shermantank_tread.dds` (thats the chain texture)
- `wheel_metal_masked@v_us_lnd_shermantank_wheelfrt.dds` (first and last wheel)
- `wheel_metal_masked@v_us_lnd_shermantank_wheelmid.dds` (all wheels in the mid)

That looks like this(Lightray 3D just shows 1 texture on the mesh when loading it):



**Bow MG (secondary weapon):**

The Bow MG is an own mesh, it should consists of everything that moves when the MG moves.

**Assignment of meshes to bones:**

- treat\_high (7 bones, explained earlier)
- tank\_high\_shock (tag\_body)
- tank\_high ( tag body)
- tank\_high\_turret (turret\_recoil)
- tank\_high\_barrel ( tag\_barrel)
- machg\_high (tag\_turret2)
- 50cal (tag\_secondary\_gun)
- ringbase (tag\_secondary\_base)
- topparts (tag\_turret)
- antenna (tag\_turret)

### **Explanation of other bones:**

- The bone "tag\_chasecam" tells you where the camera is when using a tank
- The bone "tag\_aimdownbarrel" is the position of the camera when zooming
- The bone "tag\_secondary\_view" is the camera position when you are the second driver[
- The bones "tag\_guy0\*" are the positions for AI sitting on the tank
- The bone "tag\_secondary\_player" is the position of the second player in the turret
- The bones "tag\_flash" is where the muzzle flash appears

### **Additional informations:**

- Every skin object uses own texture
- The vehicles in UO have a polycount around 4500

Ok that's it, this was "just" a "quick" analysis of vehicles in UO.