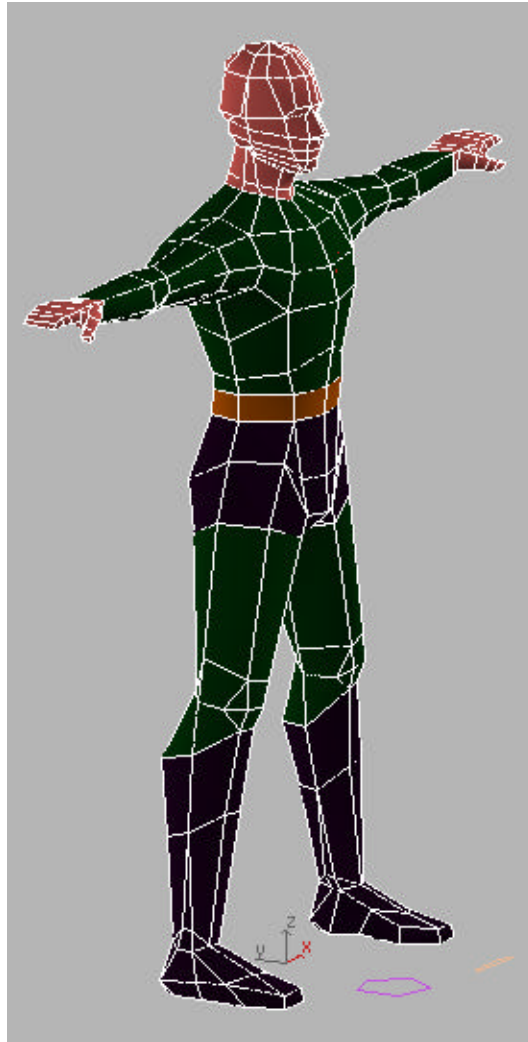# Guest Lecture—Creating a Low-Poly Character as a Template

Creating your own low-poly human mannequins is an effective way to cut time and costs. These convert well into just about any other character with just a bit of scaling, shaping, and additions of unique details (such as hairstyles or clothing).

The model shown above is a basic all purpose low-poly mannequin template. (It used to be a medium-poly template in the 1990s.) I use it as a template for building other character models, adding and removing detail where needed. I have used versions, both male and female, of my mannequin in every company I have worked for The main thing when building a character is to make sure that the character can animate and bend appropriately by creating expansion areas at the major joints, such as the armpits, groin, elbows, knees, wrists, ankles, and the ball of the foot.

The next consideration is the costume and silhouette of the character. Details after that are pretty much left up to the discretion of the artist.

I will still use the model as structural guide, if I become bored or wish to brush up my skills or test the effectiveness of new modeling techniques now available in software updates. I rebuild the model with each major change in software or when I'm switching to a new-flavor-of-the-month software package that the company decides is cool and cutting edge. Doing this rebuild also helps me keep my skillset up to date for whenever I'm called upon to create nonhuman, non-biped models.

Creating this model originally took 8–12 hours to build (using older modeling tools and much slower computers). Refinement and conversion of the model into other characters took about 6–8 hours. With the new tools and techniques available now, I can knock it out in about 2 hours' time, with conversion to other characters taking me 2–3 hours. Depending on how closely the model is supposed to resemble the latest action hero, movie star, or supermodel, the refinement can take longer, mostly in aesthetic reworks suggested by people with no aesthetic skills whatsoever (AKA The Suits or Money Men).

Additionally with the basic structure already there, the low-poly-mannequin can be used as a starting point for higher polygon models. 3ds Max's Edit Poly tools quickly present the speed and control to refine basic shapes quickly, so you can put the fine detail exactly where they're needed, such as in the face and upper body, the places that will be seen when the camera moves in close to the character.

Sometimes having an existing mannequin can pose problems for you. At one company, it was continually suggested by one of my superiors that my speed in character modeling was not as fast as another artist's. I had been assigned to create original non-humanoid monsters, and since they were very different structurally from my human mannequin, I had to create them from scratch. It was taking me 2–3 days to finish them, (this was back in the days when it was an 8-hour process to just get the basic mannequin done.)

I felt really bad about this situation and went to see if the artist could give me some tips. When the supervisor and I went to see him, he was not in his office, but his latest NPC was still on his computer. I immediately noticed that the structure of the model looked familiar and checked the *File* properties on the model, where I always tag my name, project, and company. Sure enough, he was simply repurposing my original mannequin. I pointed out to the supervisor that the reason the other artist was so fast was that I had already done ¾ of the work for him!

I wish to make it clear that the other artist was doing nothing wrong. It's common practice to use an existing model in the company's character library to save time and money. The real problem was with the supervisor who did not understand the process in the first place. In situations like this one, make it clear to your supervisor the differences between repurposing and creating a form from scratch.

Robert Steele