

ARTBee

# Dressing Up

Case Study – Cloth Room basics

*Alyson gets dressed, and plays the Marilyn game*

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## Introduction and Preparation

This Case Study presents some basics for handling the Poser Cloth Room.

I'll present a Poser girl wearing a simple dress and a scarf, animated to take some poses.

The girl is Alyson, lives in the Poser standard runtime (People \ Alyson section), and comes undressed to this tutorial session. She'll take the following poses:

- T-stand, in frame 1
- Reaching01 (People \ Alyson \ Standing), in frame 30
- Reaching03M (ditto), in frame 60

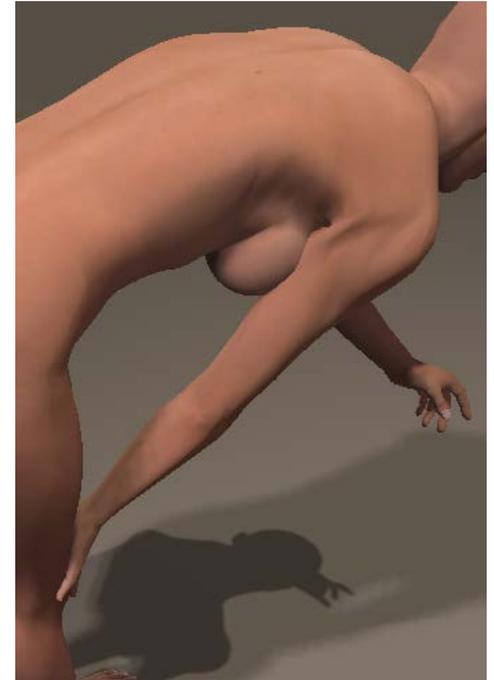


While she's still undressed I step frame by frame through the animation to inspect on clothing issues. Body parts should not intersect, and should not touch in places where any cloth has to pass through. Cloth does need some room to maneuver.

The last frame presents some issues with the right arm. The upper arm intersects with a breast and the hand rests upon the knee. Both cases will prevent any future dress to flow gently around the body. On top of that, the shoulder part just looks ugly. From an animation point of view the whole sequence can be improved such that the ball of the right foot stands still, so she's slightly stepping back in the first part, and bending forward in the second.



After fixing that, I step back to frame 1 and load a dress and a scarf for Alyson (Props > ... Clothing > Alyson Clothing > Dynamic). Both are simple props, which fit her neatly. I give the scarf a reddish color to make it stand out. I save this intermediate file.

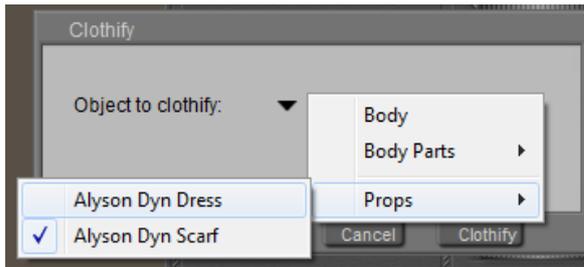
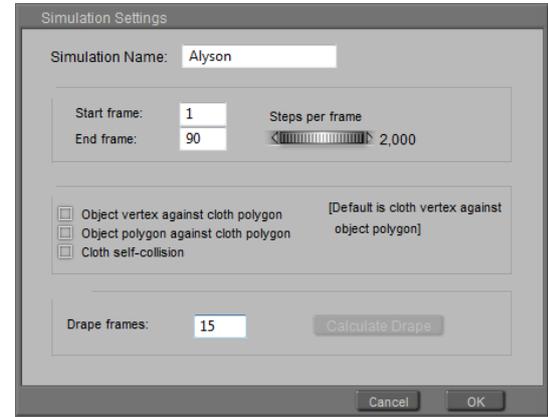


## First Simulation

Now I enter Cloth Room, click [New Simulation] and enter a name (eg “Alyson”), set the end frame to 90 (1 sec after the last pose), put 15 into Drape frames and click [OK].

In that panel 1 Cloth Simulations I can come back to this settings with the [Simulation Settings...] button.

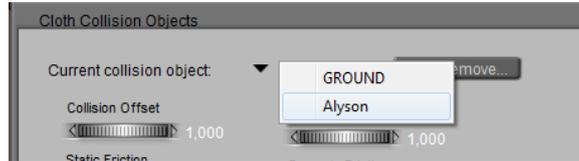
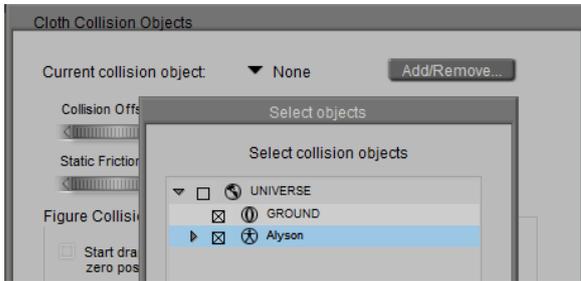
Next I step into the 2. Cloth Objects panel, click [Clothify...], from the props I select the Dress and confirm with [Clothify].



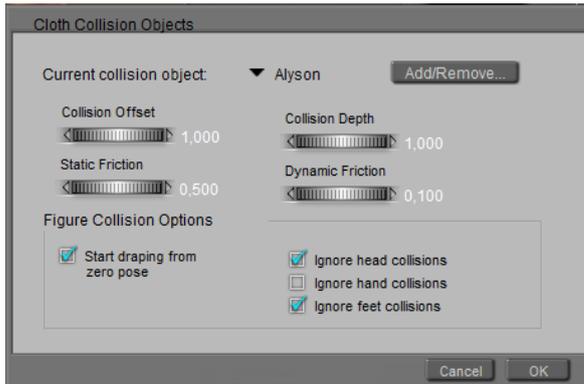
Then I do the same with the scarf. As a result, when clicking the small triangle in panel 2, both should show up.



In the same panel, I use [Collide Against...], the [Add/Remove] and check Alyson to tell that scarf and dress will collide to her. And to the ground, if I want to. Given the poses that won't be the case but when she kneels or lies on the ground, it's required to prevent the cloth from falling through it.

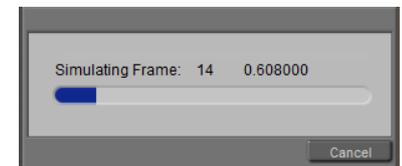
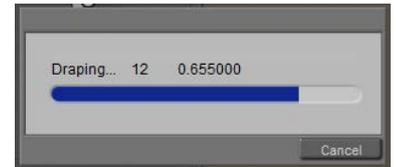


The small triangle should show both, if that's what I want. Now be sure to check Alyson, and check Ignore head and ignore feet collisions, as the dress will not collide with them anyway.



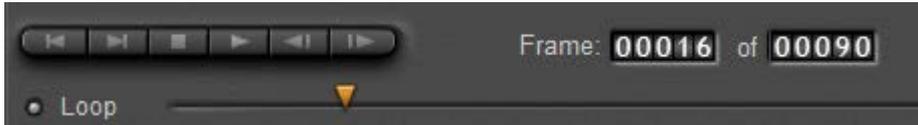
I'll skip panel 3 for the moment, I don't need more details for the clothing, and I also leave all the values in panel 4 as they are. By selecting the scarf and the dress in panel 2, I can see both have slightly different parameter settings in panel 4. These parameters define their physical behavior.

The only thing I've got to do now I click [Calculate Simulation]. This shows a progress bar, that first tells me it's draping (those 15 frames I asked for in the Sim Settings, they take place before frame 1 of the animation), and then simulating (the 60 frames from the animation). The progress bars tell me that the last finished frame took about 0.6 sec.

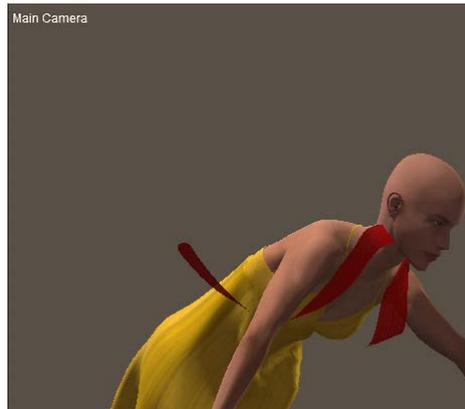


## Analyzing and Improving

For analyzing the result, I step frame wise through the resulting animation.



During frames 6-32 I see the scarf passing through the dress, and around frame 50 the scarf passes through the head, to land on the ground later on.



To repair for that

- I open the sim settings in panel 1, and check the Cloth self-collision option (lowest from the three offered). Although dress and scarf are separate objects, they are both clothified in the same sim. That is meant by “self”. Not only dress-to-dress and scarf-to-scarf but dress-to-scarf as well. Every time there are multiply objects clothified in the same sim, this option should be checked to prevent on passing through another.
- I open the collision settings in panel 2, for Alyson. I had checked the Ignore head collisions since I guessed that I could afford that, but I was wrong. So I uncheck this one. Note that when the scarf lands on the ground someday, I’d better uncheck Ignore feet as well to prevent the scarf from falling through them.

In panel 4, I [Clear Simulation] and [Calculate Simulation] again. In the result I see the dress coming at rest soon after frame 60, the free swaying scarf dangles a bit even at frame 90.

This is my result at frame 75.



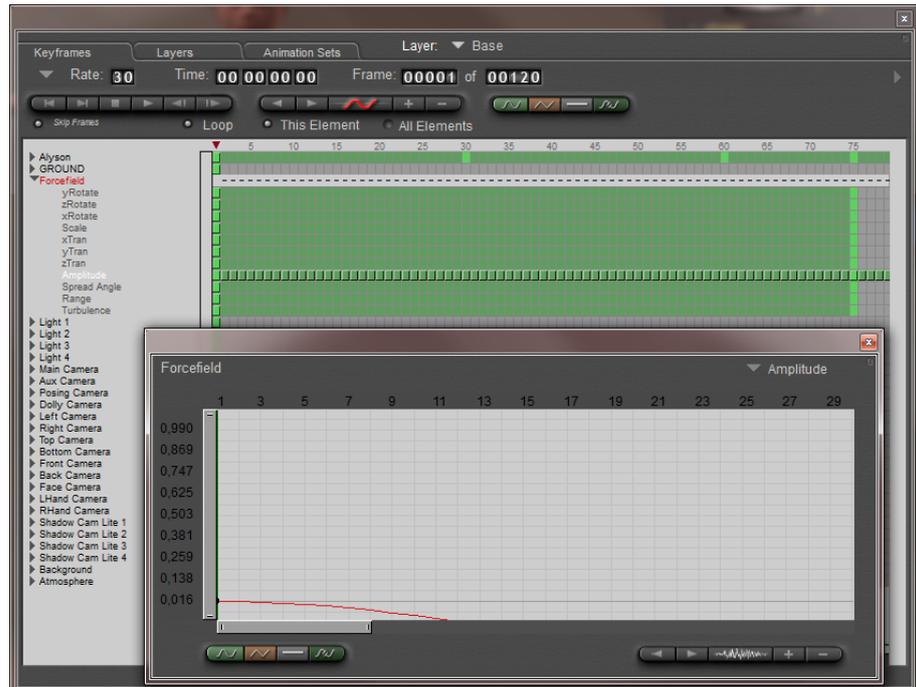
## Girls have more fun

Now let's have some more fun. I [Clear Simulation], and back to Pose Room to set the animation cursor in frame 90 and give Alyson an extra pose: Standing02, plus some extra bend through the knees. And I check the added range for unwanted intersections of body parts.

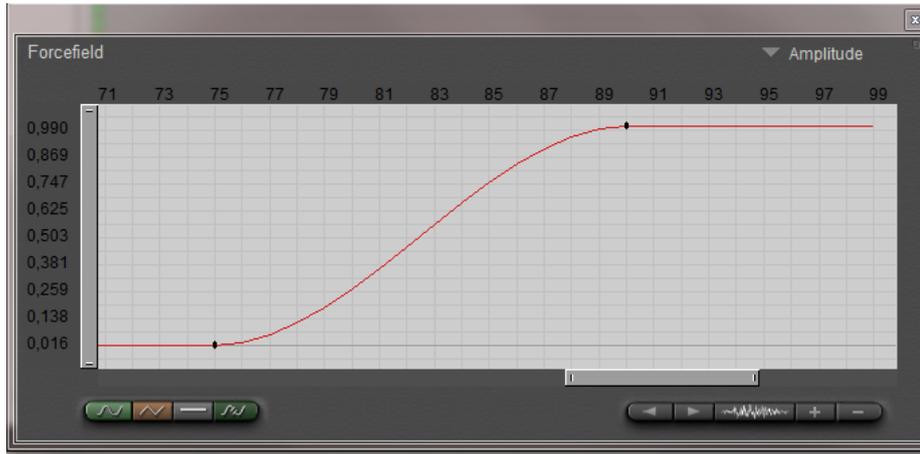
**WARNING:** in Poser 9 / Pro 2012 the Wind Generator seems to be broken, it won't affect the cloth sims any more. It's not you, it's a software bug.

Back to frame 1, and I choose menu > Object > Create Wind Force. A wind machine drops on the floor, and xRotate=90° makes it point upwards. I move it under her right foot, set the Range to 0.35 (it measures in Poser native Units, 1PNU = 262 cm so 0.35 makes it to her hips) and I set the amplitude to 0. Then I set the animation cursor at frame 75 and click [+] to enter a keyframe, and in frame 90 I set the wind amplitude to 1, while increasing the animation length to 120.

For more precision, I open (menu > Window>) Animation palette, find the Wind Forcefield and its Amplitude and open the Graph.



Back to frame 1 I set this graph to Linear, which guarantees me a wind speed 0 till frame 75, a gradual ramp up till 90 and a constant after that.



Time to save again.

Back to Cloth Room, and I open the Sim Settings to elongate the sim to 120 frames, 30 after the latest pose in the animation. Time to [Calculate Simulation].

Not satisfied? I changed:

- The wind amplitude from 1 to 1.5 (more wind)
- Selecting the dress in panel 2, the Air Damping from 0.02 to 0.2 (dress responds stronger)
- And Fold Resistance from 30 to 3 (dress deforms easier)
- The simulation length to 150 frames



and with some altered lighting and a hairdo...

