

Magnets in Poser

What are they and why should I use them?

A magnet in Poser is a Deformer object. Magnets can be used to change the size and shape of an object and to distort sections of it. If you have ever needed to permanently or temporarily change the size or shape of an object in Poser, magnets might be the best way to do it.

Magnets can be used to make morphs on figures, on clothing and on props and to adjust clothing for fit in tough poses or even to totally reshape clothing to convert it to a new figure



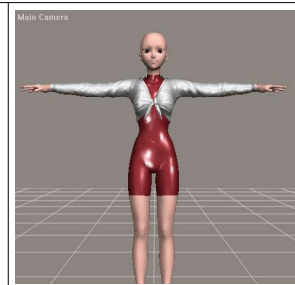
Making custom morphs



Converting hair

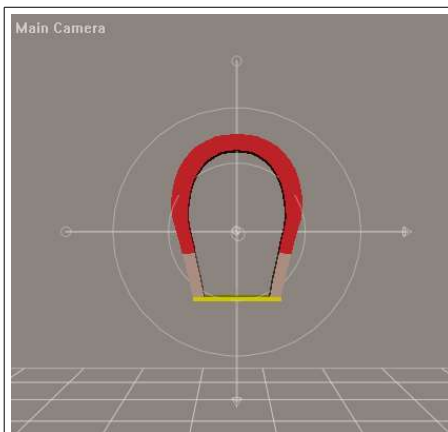


Morphing clothing



Converting clothing

How do Magnets work?



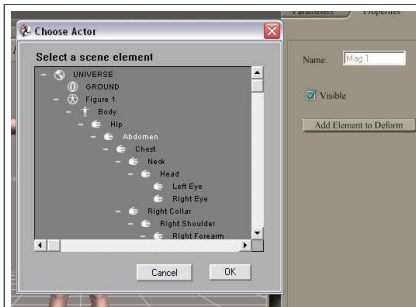
When a magnet loads in it is attached to the bodypart or prop that was selected when it was loaded. It will appear at the mathematical center of the object.

A magnet consists of three parts: the Magnet Zone, the Magnet and the Magnet Target

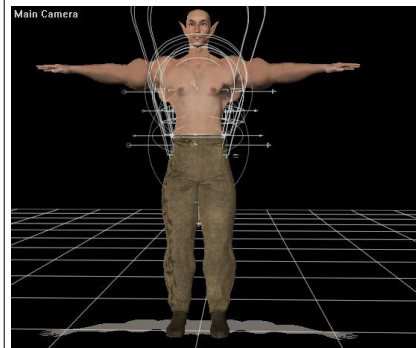
The magnet Zone is the bubble around the magnet. This is the zone of influence of the magnet. The magnet's affect will be strongest in the center of the sphere and less so on the edges. The sphere can be scaled and rotated in any direction. The magnet pictured has been modified to add crosshairs for better aiming. The default Poser magnet zone is just a sphere

The Magnet Target is the thin stick under the horseshoe shape and is the focus of the affect. Generally make sure that this is scaled to fall across the edges of your object, if it is smaller then the magnet's affect will not be as strong

The Magnet itself is the horseshoe shaped red thing. This is the part that you move and change. As you move the magnet the target focuses the affect and the zone contains and aims it so that any change you make to the magnet such as scaling, rotation and translation will change the mesh you have in the magnet's target area.



To add more than one bodypart or prop to a magnets affect area select the Magnet (horseshoe) and in Parameters 'add target' and add any mesh you need to. If you are working with clothing make sure you dont select the figures mesh by accident.



Weird fact: when a magnet preset is loaded any magnets assigned to bodyparts not in the selected clothing item will attach themselves to anything else in the scene with the right name. Usually the figure. This is a poser thing and not much that can be done about it. If you select the figures bodyparts you can turn the magnets strength dial from 1 to 0 and effectively turn them off without having to delete anything.

Example: when morphing a pair of pants with the Heavy morph the magnets for the arms and upper chest apply themselves to the figure and puff them up. Solution: ignore them OR remove the extra magnets OR turn the strength to 0

Why use magnets to morph?

You can do it in poser quickly without any other programs or tedious importing and exporting of dozens of bodyparts.

With Python scripts you can have a new full figure morph in a matter of minutes

You can quickly and easily fix poke through of clothing, problems with layered clothing intersecting, adjust the hang of sleeves and hair.

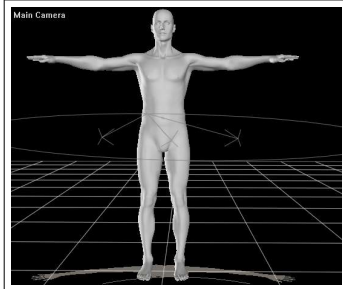
Why not use magnets to morph?

Unless you do some very sophisticated and complicated selections its difficult to do anything more than large shape modifications. For example smoothing out muscle definition that is modeled in is very difficult, as is removing or adding breasts.

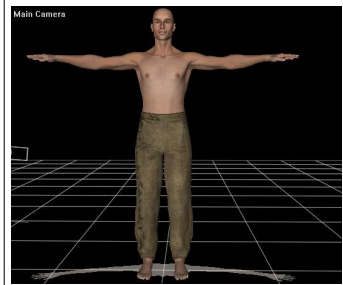
Turning a magnet morph into a fullbody morph without poser scripts is boring and tedious. But it can be done and before Python scripting this was the only method. You can also export the morphed shape and use other morph utility programs to load it onto the figure

How to use magnet presets

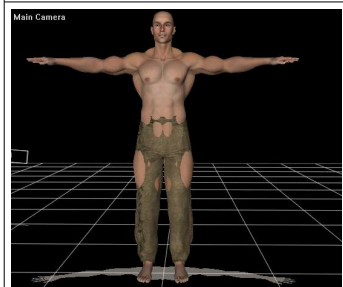
(shown here on Michael 3)



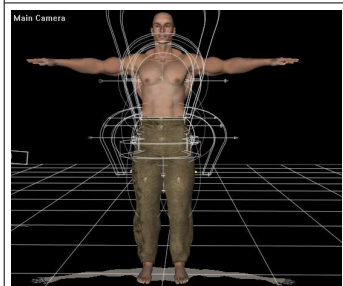
1) Load the figure, in the zeroed position. (to zero a figure, turn off IK on both legs and use Zero Figure in the Joint Editor to set all bends to 0)



2) Load and conform the clothing item you wish to add the morph to.



3) Set the morph on the figures body to 1



4) Select the clothing, and apply the magnet of the corresponding name

5) Adjust magnets if needed. Since all clothing is built and shaped differently the magnets will work differently on each clothing item. If a clothing item does not have all the bodyparts the magnets are assigned to, they will attach to your figure instead and cause strange effects. Ignore this, it will not affect your clothing item.

Note: long robes often have the entire skirt area as the Hip object. Magnets assigned to Thighs, and Shins may need to be attached to the skirt. Select the needed magnet and in Properties add the new bodypart to the magnet

6) Create morphs. You can do this manually by selecting each clothing bodypart and using the Object Spawn morph target command or by using

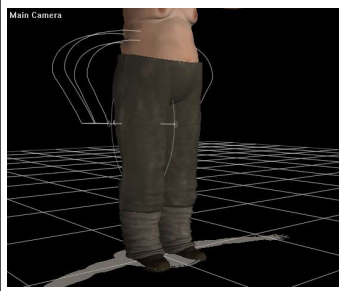
	one of several Python morph target spawning scripts
	7) Set all your new morphs to 1 and create a Full Body Morph to create the master dial in the body.
	8) Now remove all the magnets and set all the bodypart morphs to 0. Your clothing will now have a new morph that fits M3's morphed shape. Save this clothing item to your library folder. Note: in poser 5 and below morphs are saved in the cr2 by default .. in poser6 the default Use Binary Morph targets will save the morphs in a PMD file. To save in the cr2, turn this option off

How to Adjust magnets



In general all you should need to do if your loaded preset does not fit the shape properly is adjust the Magnet a little. Use the parameter window dials to move or scale it on x, y or z

On the heavy morphs especially you might sometimes have to adjust the zones scale on x or z. Due to the wide variety in meshes some meshes 'stretch' more or less than others



Custom named bodyparts may need to be added to the appropriate magnets area. Just select the magnet whose zone covers the bodypart and add the bodypart to the magnets area.

Saving a custom Magnet

If you have used the blank magnet set to fit clothing to your favorite custom character you can save this setting to the library props folder

Choose the folder in which to save it, select a magnet and click the 'add to' button on the library interface. **IMPORTANT** you **MUST** choose 'select set' and use the hierarchy window that open to select all the magnet parts. That is every zone, target and magnet for each magnet that is loaded. If you do not then they will not save properly and will not work when reloaded. So after you have clicked on a zillion little boxes you can save the set to the library.