

# A Guide to PackageMan



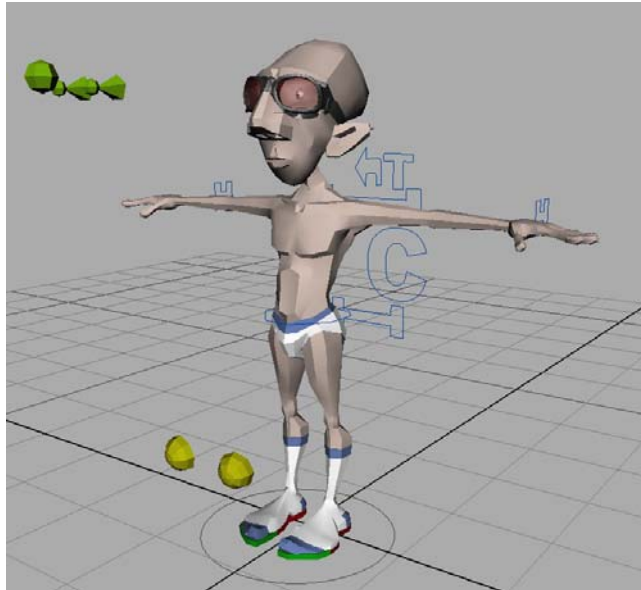
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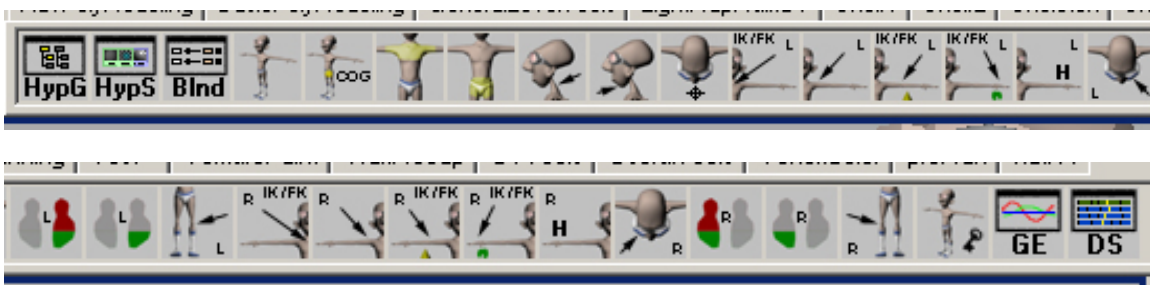
## A Guide to PackageMan

PackageMan has been created for your Animation assignments. He can also be dissected to see how you can make some of your own characters even better. He is by far one of the better characters you will ever have an opportunity to work with. This is the job of the “rigger”. To make a character as easy as possible for the animator to work with.



PackageMan is very complex, this document is not a tutorial on how he was created but rather where you can find the various controls so that you can begin working with him. There are areas of the character which are hidden from view and should not be made visible for your own sanity's sake.

In the next few pages we will go through the major controls and list the blendshapes which are available within the character. PackageMan was created to be a broad basis character. It is important to note that when you are creating your own characters that they should be created with their purpose in mind and you should never go to this extreme for your own films.

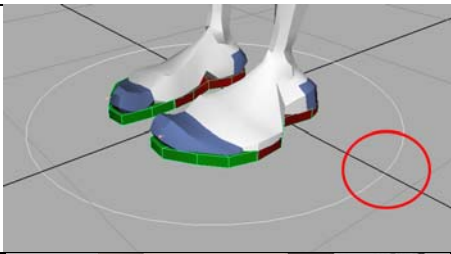

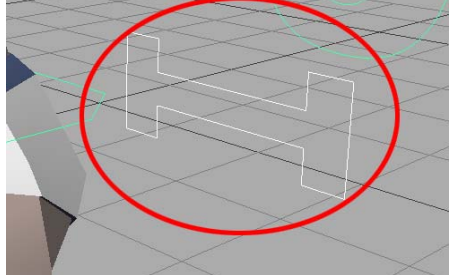
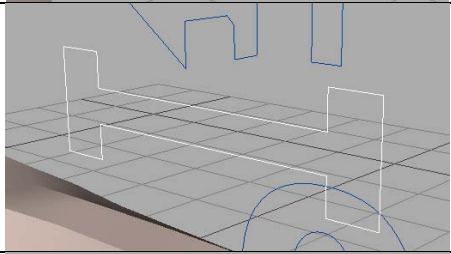

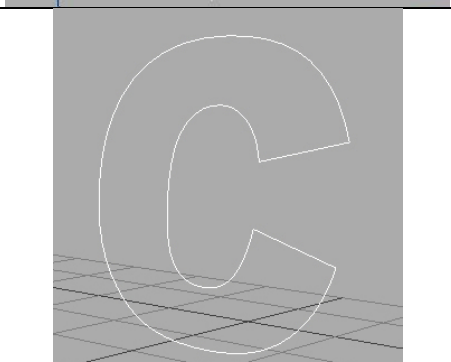


There is also a shelf which goes along with the character; you can add this if you wish by placing the icons in a 'PackageMan' folder in the preferences folder of your Maya Directory.

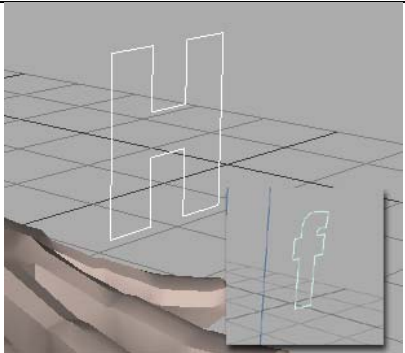
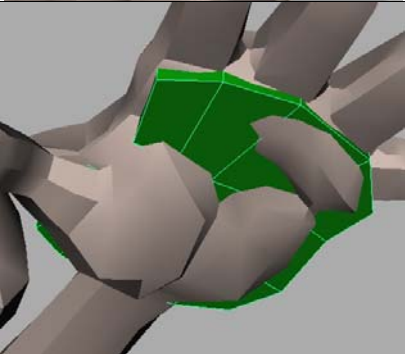
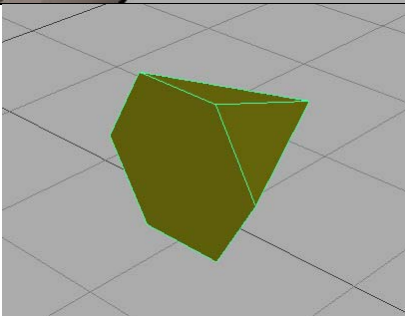
Place “createPackageManShelf.mel” in your script folder, in your Maya Directory.

To run it, you just type "createPackageManShelf();" in the command prompt and it's done.. easy.

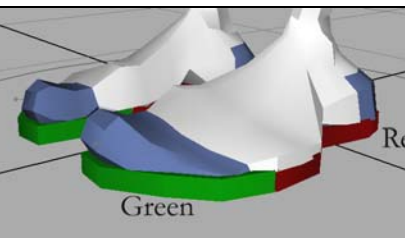
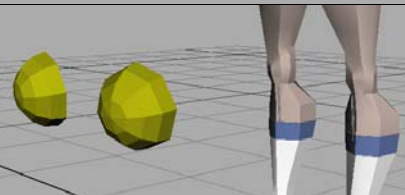
## Main Character Controls

	<p><b>Main Control</b></p> <p>This control will grab the entire character so that it can be moved, rotated or scaled. It is used mainly to position your character in your scene.</p>
	<p><b>C.O.G.</b></p> <p>To move the Centre of Gravity. The graphical display helps you know where the C.O.G is pointing to.</p>
	<p><b>Hip Control</b></p> <p>For hip movement, both translate and rotate. This set up is the same that Jason Schleifer of Weta Digital used for the characters in "The Lord of the Rings". The visual display lets you see which way the hips are rotated.</p>
	<p><b>Shoulder Control</b></p> <p>For shoulder Rotations only. The shoulder control works in conjunction with the hip control. Same visual display to see which way the shoulders are rotated.</p>
	<p><b>Neck Control</b></p> <p>For neck rotations, also allows you to thrust and tuck.</p>
	<p><b>General Control</b></p> <p>This control gives you access to some alternate controls; these are for chest muscle and toe spread. Also this is where we can switch between using FK or IK in your arm animation. The "armIKFK left" and "armIKFK right" need to be keyed off (0 = FK) and on (10 = IK). The nice thing about this is that it will also allow for FK/IK blending between poses.</p> <p>Turning IK on will activate other controls on the hands, see section below.</p>

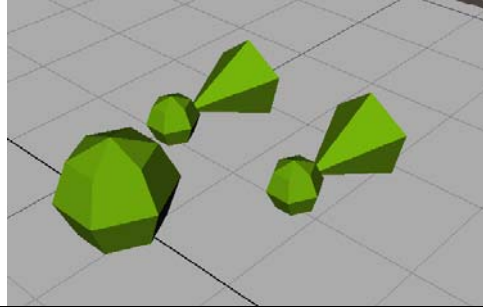
## Hand Controls

 A 3D render of a hand with white wireframe boxes overlaid on the fingers, indicating control points for curling and spreading. An inset shows a blue wireframe hand icon.	<p><b>Hand Controls</b></p> <p>Hand controls for curling and spreading fingers. There is an alternate control which you can activate under the “Unused” layer. This will give you access to every rotation on the individual fingers. See image inset.</p>
 A 3D render of a hand with a green wireframe box overlaid on the palm, representing the IK control.	<p><b>IK Control</b></p> <p>Used to control your IK on the hands. Also a form of reverse hand rig where it will hold position once keyed. The visual display helps you know where the hand is at any given time.</p> <p><b>Note:</b> This will only appear when you have IK activated on your character.</p>
 A 3D render of a green wireframe box, representing the Elbow Pole Vector Constraint.	<p><b>Elbow Pole Vector Constraint</b></p> <p>Used to help orient the elbows during movement when you have IK selected.</p> <p><b>Note:</b> This will only appear when you have IK activated on your character.</p>

## Foot Controls

 A 3D render of a foot with a white wireframe box overlaid on the foot. The box is divided into sections: a red section on the side, a green section on the bottom, and a blue section on the top. Labels 'Green' and 'Red' are visible.	<p><b>Foot Control</b></p> <p>Main control for leg IK. There are two elements here aside from being a standard reverse foot rig. The red section on the icon is used to control the IK and the green section can be rotated to control the rolling of the toes. The visual ‘foot print’ control lets you see clearly where your feet will be on your animation.</p>
 A 3D render of a character's legs with two yellow wireframe boxes overlaid on the knees, representing the Knee Pole Vector Constraints.	<p><b>Knee Pole Vector Constraints</b></p> <p>Used to help orient the knees during movement.</p>

## Facial Controls



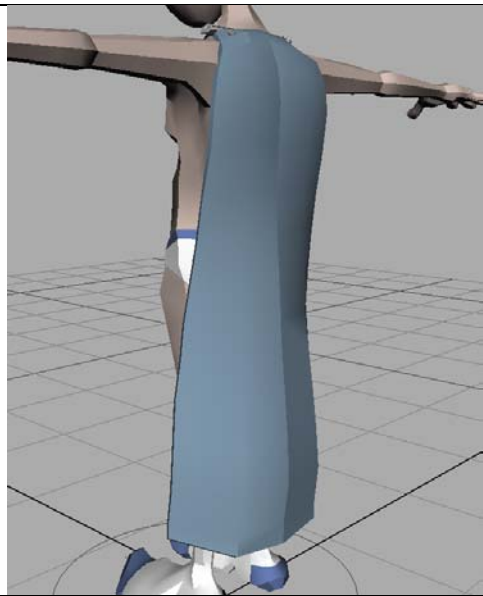
### Eye Control

These are broken down into two separate controls. The large sphere is for overall control of both eyes, and the smaller ones are used to control individual eye movement. There is also a pupil dilation attribute in here.

There are a number of controls which can be accessed through the Blendshapes window, this is a list of what you can expect to find.

Phonemes	Blinks	Faces	Eyebrows	Miscellaneous
<b>Phonemes</b> Faces Eyebrows Misc Envelope 1 OH 0 EEE 0 B_M_P 0 Th_L 0 AJ 0 OOH 0 WWW 0 R_D 0 F_V 0 AH 0 SSS 0 C_K_G 0 AHHH 0	<b>BlinkR</b> <b>BlinkL</b> Phonemes Faces Eyebrows Misc Envelope 1 RBlink1 0	<b>Faces</b> Eyebrows Misc Envelope 1 RSnarl 0 LSnarl 0 RSmirk 0 LSmirk 0 RFrown 0 LFrown 0 RPuff 0 LPuff 0 Puff 0 Pucker 0 Smile 0 BigSmile 0 Closed 0 Disgust 0	<b>Eyebrows</b> Misc Envelope 1 LInUp 0 LInDn 0 LMidUp 0 LMidDn 0 LOutUp 0 LOutDn 0 RInUp 0 RInDn 0 RMidUp 0 RMidDn 0 ROutUp 0 ROutDn 0 Sad 0 Anger 0 Surprise 0	<b>Misc</b> Envelope 1 LPinch 0 LFlare 0 RFlare 0 RPinch 0 LEyeSize 0 REyeSize 0

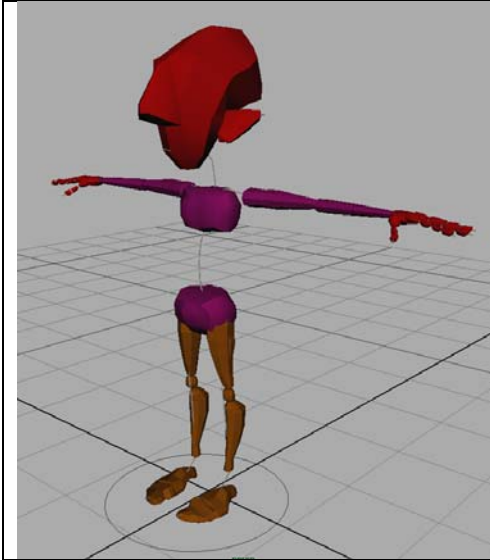
## Other Controls



### The Cape

PackageMan has a cape which you can use for any secondary actions you may wish to include in your tests. Be aware however that this adds a new complexity to your animation since you will need to adjust this cape accordingly.

## Muscles Underlying Structure



### The Muscles

There is a large assortment of muscles that lie behind the scenes to aid in the ways that PackageMan moves. You can show these in your layers and even use them to display while you are animating.

Use as reference for any characters you wish to set up, these are influence objects used within a smooth bind, and the result can be very good.