Virdyn Model Bone Binding Specification

1. The model file is required to be in FBX format.

2. The model binding is preferably T-shaped standing, the skeleton is shown in Figure 1, the model Body part (not including fingers) 23 skeletons, skeleton node names, as shown in Figure 1.

If there are bones in the figure, use the names of the bones in the figure; if some bones do not exist, do not use the names of these bones in the figure. The head end node does not need to have the same name.

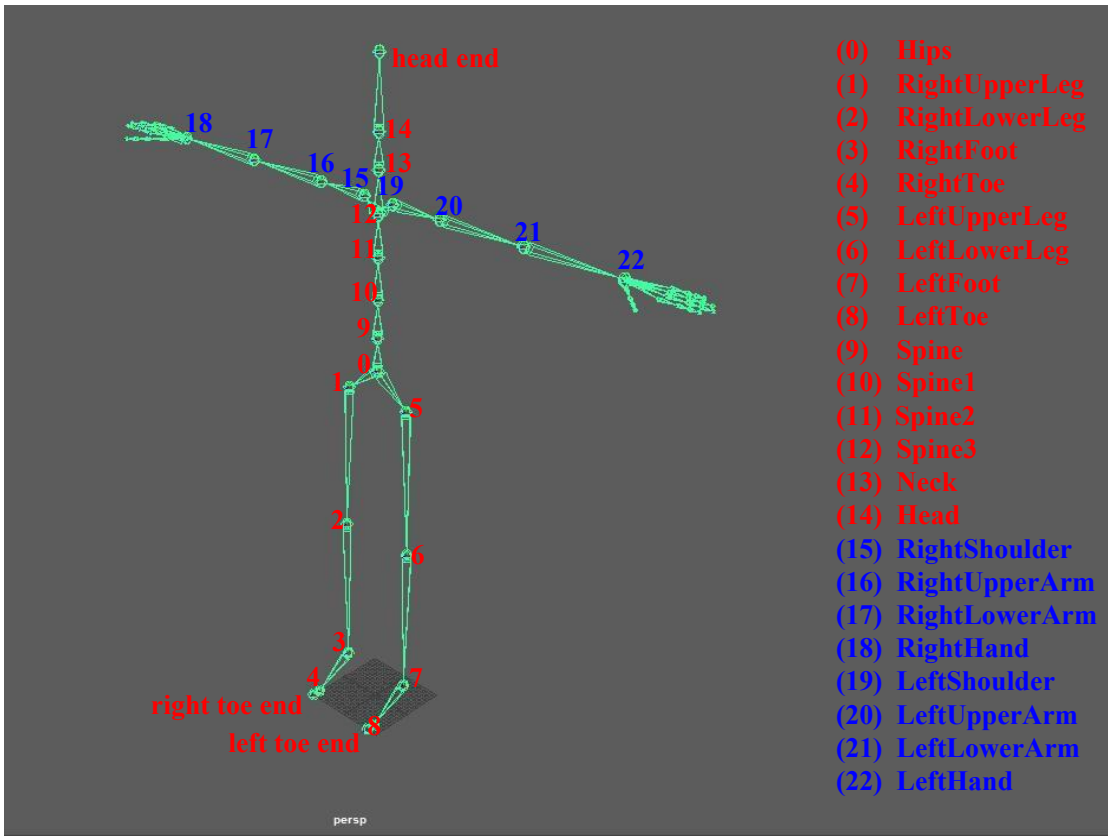

Figure 1 Full-body skeleton node names

1. In addition, from the top view, as shown in Figure 2, the skeletal nodes right shoulder (15), right upper arm (16), right lower arm (17),

right hand (18), left shoulder (19), left upper arm (20), left lower arm (21), and left hand (22) are in a straight line.

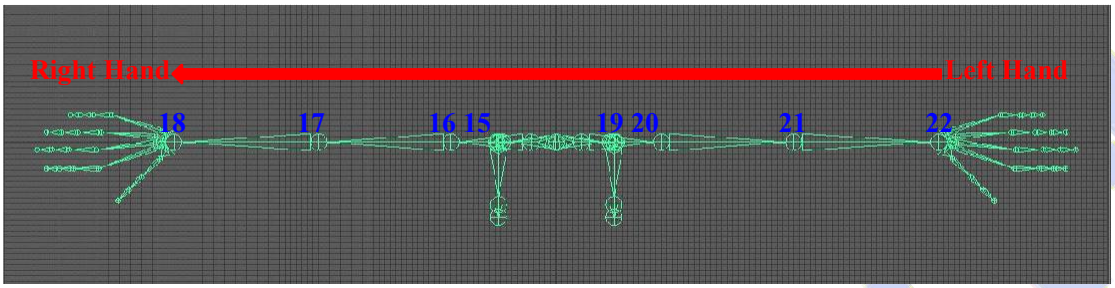

Figure 2 Top view of the skeleton

1. The skeleton is a straight line from the side view, as shown in Figure 3.

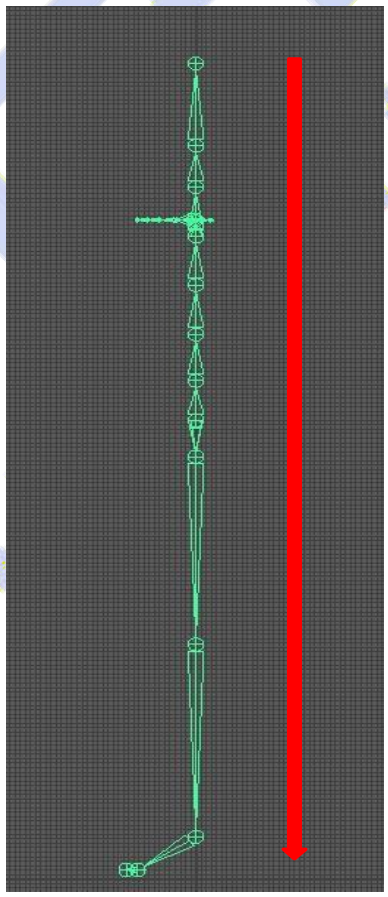

Figure 3 Side view of the skeleton

1. The Hand part of the model, as shown in Figure 4, contains 20 bones (wrist and fingers) in one hand, and the names of the bone nodes are shown in English in the figure; if the bones in the figure exist, use the names of the bones in the figure; if some bones do not exist, do not use the names of these bones in the figure. If some bones do not exist, do not use the names of these bones in the figure.

The names of the end nodes of the fingers need not be the same. The palm of the hand is parallel to the ground, the index finger, middle finger, ring finger and little finger are parallel to each other (blue node in Figure 4), the angle between the thumb and the index finger is 45 degrees, and the left and right hands are symmetrical, referring to the FBX skeleton; the FBX file of the skeleton is attached as "vdTpose_default.fbx".

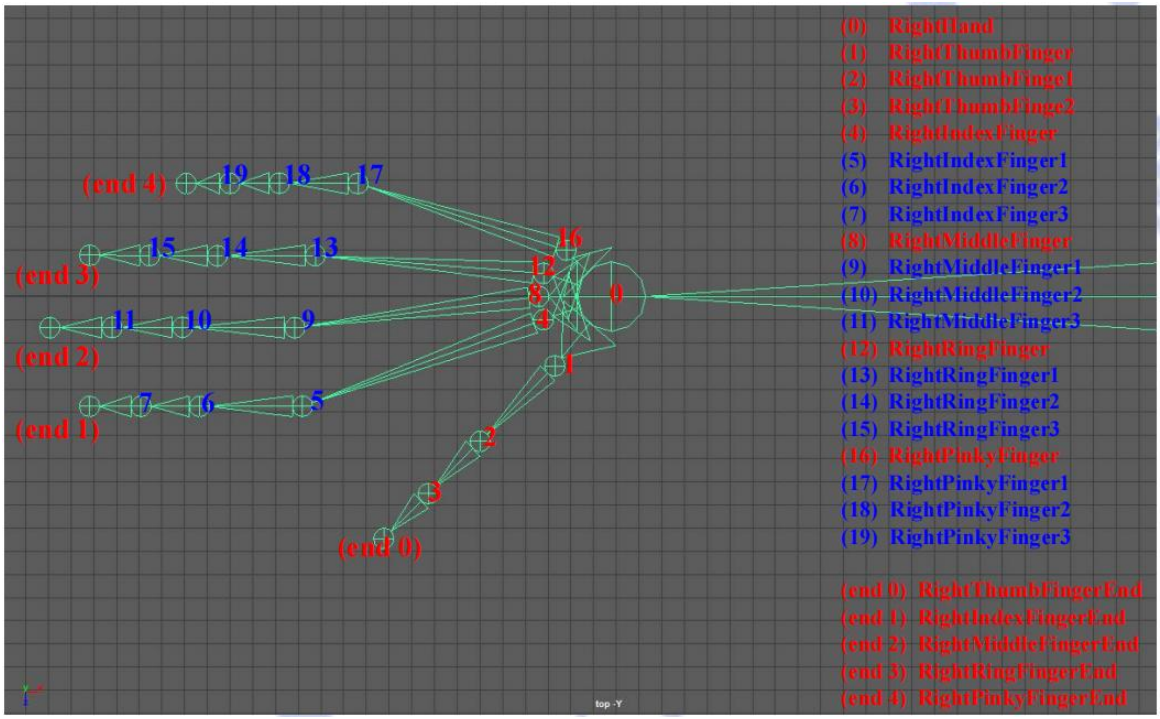

Figure 4 Hand bone node names

1. If you need to quickly bind the FBX action file to the model in 3dsMAX or Maya, you need the model skeleton to be the same as the FBX skeleton above, that is, you need to meet the following requirements.

(a) The names of the bones in the model skeleton are the same as the names of the bones in the FBX action file skeleton (as shown in Figure 1 and 4), and the names of the 23 bones in the whole body and the 38 bones in the fingers of both hands must be the same (excluding the end nodes at the end of the head and the end of the fingers), and some bones may not exist in the model skeleton, but the names of the corresponding bones must be the same.

(b) The local coordinates of each node of the model skeleton and the local coordinates of each node of the FBX action file skeleton must be the same. The local initial coordinates of each node of the FBX action file skeleton and the local initial coordinates of each node of the used model skeleton are the same, as shown in Figure 5.

Figure 5 Consistent local coordinates of each node

(c) The rotation and joint direction of each node of the model skeleton must be 0 degrees (i.e., the rotation, the preferred angle and joint direction are "0"), as shown in Figure 6.

Figure 6 Rotation and joint direction clearing