//-------------------------------------------------------------------------------

//-------------Rigging Shapes Tool-----------------------------------------------

//---------------------------------------Written by Michael Swann----------------

//-------------------------------------------------------------------------2013--

//-------------------------------------------------------------------------------

//create window

if (`window -exists riggingShapes1`)

deleteUI riggingShapes1;

window -title "MwS\_Rigging Shapes 2013" riggingShapes1;

rowColumnLayout

-numberOfColumns 1

separator;

separator;

separator;

//base

global proc tCurveGen()

{

$x = `textFieldGrp -q -tx "chrName"`;

textCurves -name "baseNameCurves1" -font "Century Gothic|w400|h-11" -text $x;

setAttr "baseNameCurves1Shape.rotateX" -90;

xform -cp;

move -rpr 0 0 0;

select -r baseNameCurves1Shape ;

select -r -hi;

pickWalk -d down;

pickWalk -d down;

pickWalk -d down;

string $baseNCS[];

$baseNCS = `ls -sl`;

for($curve in $baseNCS)

{

string $base;

rename $baseNCS

($base + "\_" + $curve);

}

}

textFieldGrp -label "Character Name" chrName;

button -label "Create Text" -command "tCurveGen" bntButton;

columnLayout -adjustableColumn true;

text -label "Text Size";

floatSlider -min .001 -max 100 -value 1 -step .001

-dc "setTextScale"

-cc "setTextScale"

textScaleFS;

text -label "Text Position X";

floatSlider -min -100 -max 100 -value 0 -step .001

-dc "setTextTransZ"

-cc "setTextTransZ"

textTransZFS;

button -label "Create Base Circle" -command "baseCirclePair" baseCPButton;

global proc setTextScale()

{

float $valueScaleFS = `floatSlider -q -v textScaleFS`;

setAttr baseNameCurves1Shape.scaleX $valueScaleFS;

setAttr baseNameCurves1Shape.scaleY $valueScaleFS;

setAttr baseNameCurves1Shape.scaleZ $valueScaleFS;

}

global proc setTextTransZ()

{

float $valueTransZFS = `floatSlider -q -v textTransZFS`;

setAttr baseNameCurves1Shape.translateZ $valueTransZFS;

}

text -label "Base Size";

floatSlider -min .001 -max 100 -value 1

-cc "setBaseScale"

-dc "setBaseScale"

baseScaleFS;

button -label "Finalize Base" -command "baseFinalize" baseFinalButton;

separator;

//shapes

button -label "PVE" -command "peShapeCheck" pveButton;

button -label "PVK" -command "pkShapeCheck" pvkButton;

button -label "PV" -command "pvShapeCheck" pvButton;

button -label "Wrist Shape" -command "wrtShapeCheck" wSButton;

button -label "Lil Circle Pair" -command "lcpShapeCheck" lCPButton;

button -label "Big Circle Pair" -command "bcpShapeCheck" bCPButton;

button -label "Pin Shape" -command "pinShapeCheck" psButton;

button -label "Foot Shape" -command "footShapeCheck"fsButton;

button -label "Waist Shape" -command "wstShapeCheck" wstButton;

rowColumnLayout

-numberOfColumns 1

separator;

separator;

separator;

global proc setBaseScale()

{

float $valueBaseScFS = `floatSlider -q -v baseScaleFS`;

setAttr baseCirclePair1.scaleX $valueBaseScFS;

setAttr baseCirclePair1.scaleY $valueBaseScFS;

setAttr baseCirclePair1.scaleZ $valueBaseScFS;

}

showWindow riggingShapes1;

//-------------------------------------------------------------------------------

//PVE Arrow

//Shape Check

global proc peShapeCheck()

{

if (`objExists pveArrow1`)

{

select pveArrow1;

duplicate;

move -rpr 0 0 0;

makeIdentity -apply true -t 1 -r 1 -s 1 -n 0;

}

else

{

pveArrow;

}

}

global proc pveArrow()

{

//create text PVE and position it

textCurves -ch 0 -f "Century Gothic|w400|h-11" -t "PVE";

setAttr "Text\_PVE\_1.rotateX" -90;

select -r Text\_PVE\_1;

xform -cp;

move -rpr -z -1 ;

//rename letter curves

select -r curveShape1;

rename "curveShape1" "pveShape1";

select -r curveShape2;

rename "curveShape2" "pveShape2";

select -r curveShape3;

rename "curveShape3" "pveShape3";

select -r curveShape4;

rename "curveShape4" "pveShape4";

//build an arrow

circle -name "pveArrow1";

setAttr "pveArrow1.rotateX" -90;

rebuildCurve -ch 1 -rpo 1 -rt 0 -end 1 -kr 0 -kcp 0 -kep 1 -kt 0 -s 7 -d 1 -tol 0.01 "pveArrow1";

select -r pveArrow1.cv[1] ;

move -r 0.834402 0 -2 ;

select -r pveArrow1.cv[0] ;

move -r 6 0 -2 ;

select -r pveArrow1.cv[6] ;

move -r 5.165598 0 -3.316859 ;

select -r pveArrow1.cv[5] ;

move -r 7.958079 0 -1.240475 ;

select -r pveArrow1.cv[4] ;

move -r 5.536096 0 1.03147 ;

select -r pveArrow1.cv[3] ;

move -r 6.463904 0 0.0609348 ;

select -r pveArrow1.cv[2] ;

move -r 1.041921 0 0.672724 ;

//combine curves

select -r Text\_PVE\_1 ;

select -tgl pveArrow1 ;

makeIdentity -apply true -t 1 -r 1 -s 1 -n 0;

select -r pveShape1 pveShape2 pveShape3 pveShape4 ;

select -tgl pveArrow1 ;

parent -s -r;

select -r Text\_PVE\_1 ;

delete;

select -r pveArrow1 ;

xform -cp;

move -rpr 0 0 0 ;

}

//------------------------------------------------------

//PVK Arrow

//Shape Check

global proc pkShapeCheck()

{

if (`objExists pvkArrow1`)

{

select pvkArrow1;

duplicate;

move -rpr 0 0 0;

makeIdentity -apply true -t 1 -r 1 -s 1 -n 0;

}

else

{

pvkArrow;

}

}

global proc pvkArrow()

{

//create PVK Arrow

//create text PVK and position it

textCurves -ch 0 -f "Century Gothic|w400|h-11" -t "PVK";

setAttr "Text\_PVK\_1.rotateX" -90;

select -r Text\_PVK\_1;

xform -cp;

move -rpr -z -1 ;

//rename letter curves

select -r curveShape1;

rename "curveShape1" "pvkShape1";

select -r curveShape2;

rename "curveShape2" "pvkShape2";

select -r curveShape3;

rename "curveShape3" "pvkShape3";

select -r curveShape4;

rename "curveShape4" "pvkShape4";

//build an arrow

circle -name "pvkArrow1";

setAttr "pvkArrow1.rotateX" -90;

rebuildCurve -ch 1 -rpo 1 -rt 0 -end 1 -kr 0 -kcp 0 -kep 1 -kt 0 -s 7 -d 1 -tol 0.01 "pvkArrow1";

select -r pvkArrow1.cv[1] ;

move -r 0.834402 0 -2 ;

select -r pvkArrow1.cv[0] ;

move -r 6 0 -2 ;

select -r pvkArrow1.cv[6] ;

move -r 5.165598 0 -3.316859 ;

select -r pvkArrow1.cv[5] ;

move -r 7.958079 0 -1.240475 ;

select -r pvkArrow1.cv[4] ;

move -r 5.536096 0 1.03147 ;

select -r pvkArrow1.cv[3] ;

move -r 6.463904 0 0.0609348 ;

select -r pvkArrow1.cv[2] ;

move -r 1.041921 0 0.672724 ;

//combine curves

select -r Text\_PVK\_1 ;

select -tgl pvkArrow1 ;

makeIdentity -apply true -t 1 -r 1 -s 1 -n 0;

select -r pvkShape1 pvkShape2 pvkShape3 pvkShape4 ;

select -tgl pvkArrow1 ;

parent -s -r;

select -r Text\_PVK\_1 ;

delete;

select -r pvkArrow1 ;

xform -cp;

move -rpr 0 0 0 ;

}

//---------------------------------------------------------------

//PV Arrow

//Shape Check

global proc pvShapeCheck()

{

if (`objExists pvArrow1`)

{

select pvArrow1;

duplicate;

move -rpr 0 0 0;

makeIdentity -apply true -t 1 -r 1 -s 1 -n 0;

}

else

{

pvArrow;

}

}

global proc pvArrow()

{

//create text PV and position it

textCurves -ch 0 -f "Century Gothic|w400|h-11" -t "PV";

setAttr "Text\_PV\_1.rotateX" -90;

select -r Text\_PV\_1;

xform -cp;

move -rpr -z -1 ;

//rename letter curves

select -r curveShape1;

rename "curveShape1" "pvShape1";

select -r curveShape2;

rename "curveShape2" "pvShape2";

select -r curveShape3;

rename "curveShape3" "pvShape3";

//build an arrow

circle -name "pvArrow1";

setAttr "pvArrow1.rotateX" -90;

rebuildCurve -ch 1 -rpo 1 -rt 0 -end 1 -kr 0 -kcp 0 -kep 1 -kt 0 -s 7 -d 1 -tol 0.01 "pvArrow1";

select -r pvArrow1.cv[1] ;

move -r 0.834402 0 -2 ;

select -r pvArrow1.cv[0] ;

move -r 6 0 -2 ;

select -r pvArrow1.cv[6] ;

move -r 5.165598 0 -3.316859 ;

select -r pvArrow1.cv[5] ;

move -r 7.958079 0 -1.240475 ;

select -r pvArrow1.cv[4] ;

move -r 5.536096 0 1.03147 ;

select -r pvArrow1.cv[3] ;

move -r 6.463904 0 0.0609348 ;

select -r pvArrow1.cv[2] ;

move -r 1.041921 0 0.672724 ;

//combine curves

select -r Text\_PV\_1 ;

select -tgl pvArrow1 ;

makeIdentity -apply true -t 1 -r 1 -s 1 -n 0;

select -r pvShape1 pvShape2 pvShape3 ;

select -tgl pvArrow1 ;

parent -s -r;

select -r Text\_PV\_1 ;

delete;

select -r pvArrow1 ;

xform -cp;

//adjustment

select -r pvArrow1Shape.cv[1:2] ;

move -r -x 1 ;

select -r pvShape1.cv[0:20] pvShape2.cv[0:14] pvShape3.cv[0:6] ;

move -r 1.306254 0 0 ;

select -r pvArrow1 ;

xform -cp ;

move -rpr 0 0 0 ;

}

//---------------------------------------------------------------

//wrist shape

//Shape Check

global proc wrtShapeCheck()

{

if (`objExists wristShape1`)

{

select wristShape1;

duplicate;

move -rpr 0 0 0;

makeIdentity -apply true -t 1 -r 1 -s 1 -n 0;

}

else

{

wristShape;

}

}

global proc wristShape()

{

//build wrist shape

circle -name "wristShape1";

setAttr "wristShape1.rotateX" -90;

rebuildCurve -ch 1 -rpo 1 -rt 0 -end 1 -kr 0 -kcp 0 -kep 1 -kt 0 -s 24 -d 1 -tol 0.01 "wristShape1";

select -r wristShape1.cv[0] ;

move -r 0 0 -4 ;

select -r wristShape1.cv[23] ;

move -r 1.740373 0 -2.030091 ;

select -r wristShape1.cv[22] ;

move -r 0.498285 0 -2.131246 ;

select -r wristShape1.cv[21] ;

move -r 0.289816 0 -0.289794 ;

select -cl ;

select -r wristShape1.cv[20] ;

move -r 2.131117 0 -0.498289 ;

select -r wristShape1.cv[19] ;

move -r 2.030841 0 -1.740372 ;

select -r wristShape1.cv[18] ;

move -r 3.995648 0 -1.12616e-007 ;

select -r wristShape1.cv[17] ;

move -r 2.030841 0 1.740373 ;

select -r wristShape1.cv[16] ;

move -r 2.131117 0 0.498285 ;

select -r wristShape1.cv[15] ;

move -r 0.289816 0 0.289816 ;

select -r wristShape1.cv[14] ;

move -r 0.498285 0 2.131117 ;

select -r wristShape1.cv[13] ;

move -r 1.740373 0 2.030841 ;

select -r wristShape1.cv[12] ;

move -r 0 0 3.995648 ;

select -r wristShape1.cv[11] ;

move -r -1.740373 0 2.030841 ;

select -r wristShape1.cv[10] ;

move -r -0.498285 0 2.131117 ;

select -r wristShape1.cv[9] ;

move -r -0.289816 0 0.289816 ;

select -r wristShape1.cv[8] ;

move -r -2.131117 0 0.498285 ;

select -r wristShape1.cv[7] ;

move -r -2.030841 0 1.740374 ;

select -r wristShape1.cv[6] ;

move -r -3.995648 0 -4.63344e-006 ;

select -r wristShape1.cv[5] ;

move -r -2.030841 0 -1.740346 ;

select -r wristShape1.cv[3:4] ;

select -r wristShape1.cv[4] ;

move -r -2.131117 0 -0.498442 ;

select -r wristShape1.cv[3] ;

move -r -0.289816 0 -0.288905 ;

select -r wristShape1.cv[2] ;

move -r -0.498285 0 -2.136416 ;

select -r wristShape1.cv[1] ;

move -r -1.740373 0 -2 ;

select -r wristShape1 ;

xform -cp;

}

//------------------------------------------------------------------

//circle pairs

//Shape Check

global proc lcpShapeCheck()

{

if (`objExists lilCirlePair1`)

{

select lilCirlePair1;

duplicate;

move -rpr 0 0 0;

makeIdentity -apply true -t 1 -r 1 -s 1 -n 0;

}

else

{

lilCirclePair;

}

}

global proc lilCirclePair()

{

//lil circle

circle -r 2 -name "lilCirlePair1";

duplicate -rr;

scale -r 1.171274 1.171274 1.171274 ;

select -r lilCirlePair1 lilCirlePair2 ;

makeIdentity -apply true -t 1 -r 1 -s 1 -n 0;

select -r lilCirlePair2Shape ;

select -tgl lilCirlePair1 ;

parent -s -r;

select -r lilCirlePair2 ;

delete;

select -r lilCirlePair1 ;

}

//-----------------------

//Shape Check

global proc bcpShapeCheck()

{

if (`objExists bigCirclePair1`)

{

select bigCirclePair1;

duplicate;

move -rpr 0 0 0;

makeIdentity -apply true -t 1 -r 1 -s 1 -n 0;

}

else

{

bigCirclePair;

}

}

global proc bigCirclePair()

{

//big circle

circle -r 6.629205 -name "bigCirclePair1" ;

duplicate -rr;

scale -r 1.068914 1.068914 1.068914 ;

select -r bigCirclePair1 bigCirclePair2 ;

makeIdentity -apply true -t 1 -r 1 -s 1 -n 0;

select -r bigCirclePair2Shape ;

select -tgl bigCirclePair1 ;

parent -s -r;

select -r bigCirclePair2 ;

delete;

select -r bigCirclePair1 ;

}

//------------------------------------------------------------------

//Pins

//Shape Check

global proc pinShapeCheck()

{

if (`objExists pinShape1`)

{

select pinShape1;

duplicate;

move -rpr 0 0 0;

makeIdentity -apply true -t 1 -r 1 -s 1 -n 0;

}

else

{

pinShape;

}

}

//Shape Create

global proc pinShape()

{

circle -name "pinCircle1"

-ch on -o on -nr 0 1 0 ;

duplicate -rr;

setAttr "pinCircle2.rotateX" 90;

duplicate -rr;

setAttr "pinCircle3.rotateY" 90;

curve -name "pinShape1"

-d 3 -p 0 0 8 -p 0 0 5.666667 -p 0 0 3.333333 -p 0 0 1 -k 0 -k 0 -k 0 -k 1 -k 1 -k 1 ;

select -r pinShape1|curveShape1 ;

rename "pinShape1|curveShape1" "pinShape1Shape";

select -r pinCircle1 pinCircle2 pinCircle3 pinShape1 ;

makeIdentity -apply true -t 1 -r 1 -s 1 -n 0;

select -r pinCircle1Shape pinCircle2Shape pinCircle3Shape ;

select -tgl pinShape1 ;

parent -s -r;

select -r pinCircle1 pinCircle2 pinCircle3 ;

delete;

select -r pinShape1 ;

}

//---------------------------------------------------------------------

//foot shape

//Shape Check

global proc footShapeCheck()

{

if (`objExists footShape1`)

{

select footShape1;

duplicate;

move -rpr 0 0 0;

makeIdentity -apply true -t 1 -r 1 -s 1 -n 0;

}

else

{

footShape;

}

}

//create shape

global proc footShape()

{

circle -name "footShape1" -ch on -o on -nr 0 1 0 -r 2.236068 ;

select -r footShape1.cv[7] ;

move -r -x -0.477998 ;

select -r footShape1.cv[3] ;

move -r -x 0.477998 ;

select -r footShape1.cv[0] footShape1.cv[2] ;

move -r -z -0.247791 ;

select -r footShape1.cv[4] footShape1.cv[6] ;

move -r -z 0.247791 ;

select -r footShape1.cv[0] footShape1.cv[6:7] ;

select -tgl footShape1.cv[2:4] ;

scale -r -p 0cm 0cm 0cm 0.632665 1 1 ;

select -r footShape1 ;

duplicate -rr;

rename footShape2 heelShape1;

move -rpr -z -2 ;

rotate -r -os 90.281461 0 0 ;

setAttr "heelShape1.rotateX" 90;

rotate -r -os 0 0 97.200001 ;

setAttr "heelShape1.rotateY" -90;

select -r heelShape1.cv[2] ;

move -r -z 0.108562 ;

select -r heelShape1.cv[3] ;

move -r -z 0.26533 ;

select -r heelShape1.cv[2] ;

move -r -z 0 ;

move -r -y -1 ;

select -r heelShape1.cv[1] ;

move -r -y -0.477998 ;

select -r heelShape1.cv[0] ;

move -r -z -1.108562 ;

select -r heelShape1.cv[7] ;

move -r -z -1.26533 ;

select -r heelShape1.cv[4] ;

move -r -yz 2 0.108562 ;

select -r heelShape1.cv[5] ;

move -r -yz 2.477998 0 ;

select -r heelShape1.cv[6] ;

move -r -yz 2 -1.108562 ;

select -r heelShape1 ;

scale -r 1.402813 1.402813 1.402813 ;

scale -r 1 1 0.926342 ;

select -r footShape1 heelShape1 ;

makeIdentity -apply true -t 1 -r 1 -s 1 -n 0;

select -r heelShape1Shape ;

select -tgl footShape1 ;

parent -s -r;

select -r heelShape1 ;

delete;

select -r footShape1 ;

}

//-----------------------------------------------------------------------

//Waist Shape

//Shape Check

global proc wstShapeCheck()

{

if (`objExists waistShape1`)

{

select waistShape1;

duplicate;

move -rpr 0 0 0;

makeIdentity -apply true -t 1 -r 1 -s 1 -n 0;

}

else

{

waistShape;

}

}

//Create Shape

global proc waistShape()

{

circle -name "waistShape1" -ch on -o on -nr 0 1 0 -r 4 ;

duplicate -rr;

rename waistShape2 waistSubShape1;

select -r waistSubShape1;

scale -r 1.096085 1.096085 1.096085 ;

select -r waistShape1 waistSubShape1 ;

makeIdentity -apply true -t 1 -r 1 -s 1 -n 0;

select -r waistSubShape1Shape ;

select -tgl waistShape1 ;

parent -s -r;

select -r waistSubShape1 ;

delete;

select -r waistShape1Shape.cv[5] waistSubShape1Shape.cv[5] ;

move -r -z -0.645738 ;

select -r waistShape1Shape.cv[1] waistSubShape1Shape.cv[1] ;

move -r -z 0.645738 ;

select -r waistShape1Shape.cv[0:2] waistSubShape1Shape.cv[0:2] ;

move -r -z 0.673704 ;

select -r waistShape1Shape.cv[4:6] waistSubShape1Shape.cv[4:6] ;

move -r -z -0.673704 ;

select -r waistShape1Shape.cv[5] waistSubShape1Shape.cv[5] ;

move -r -z -0.326296 ;

select -r waistShape1Shape.cv[1] waistSubShape1Shape.cv[1] ;

move -r -z 0.326296 ;

select -r waistShape1Shape.cv[2] waistShape1Shape.cv[4] waistSubShape1Shape.cv[2] waistSubShape1Shape.cv[4] ;

select -tgl waistShape1Shape.cv[3] waistSubShape1Shape.cv[3] ;

select -tgl waistShape1Shape.cv[0] waistShape1Shape.cv[6:7] waistSubShape1Shape.cv[0] waistSubShape1Shape.cv[6:7] ;

move -r -y 1 ;

select -r waistShape1 ;

}

//Base Circle Pair

global proc baseCirclePair()

{

circle -r 6.629205 -name "baseCirclePair1" ;

duplicate -rr;

scale -r 1.068914 1.068914 1.068914 ;

select -r baseCirclePair1 baseCirclePair2 ;

makeIdentity -apply true -t 1 -r 1 -s 1 -n 0;

select -r baseCirclePair2Shape ;

select -tgl baseCirclePair1 ;

parent -s -r;

select -r baseCirclePair2 ;

delete;

select -r baseCirclePair1 ;

rotate -r -90 0 0;

makeIdentity -apply true -t 1 -r 1 -s 1 -n 0;

}

//Finalize Base

global proc baseFinalize()

{

select -r baseCirclePair1 baseNameCurves1Shape ;

makeIdentity -apply true -t 1 -r 1 -s 1 -n 0;

select -r baseNameCurves1Shape ;

select -r -hi;

pickWalk -d down;

pickWalk -d down;

pickWalk -d down;

select -tgl baseCirclePair1 ;

parent -s -r;

select -r baseNameCurves1Shape ;

delete;

}