//MEL

//user prompt window 1//

 honeyCombGenP1;

 if (`window -exists honeyCombWin1`)

 {

 deleteUI honeyCombWin1;

 }

 if (`window -exists honeyCombWin2`)

 {

 deleteUI honeyCombWin2;

 }

 window -s 0 -mxb 0 -title "MwS HoneyComb Gen 2013" honeyCombWin1;

 rowColumnLayout

 -numberOfColumns 1;

 separator -st "out";

 text -h 100 -w 250 -bgc 0.2 0.2 0.2

 "Adjust size and scale of Honeycombs";

 separator -st "in";

 button -l "Continue" -c honeycombWin2 contButton;

 showWindow honeyCombWin1;

//user prompt window 2//

global proc honeycombWin2()

{

 deleteUI honeyCombWin1;

 window -s 0 -mxb 0 -title "MwS HoneyComb Gen 2013" honeyCombWin2;

 rowColumnLayout

 -numberOfColumns 1;

 separator -st "out";

 text -h 100 -w 250 -bgc 0.2 0.2 0.2

 "Choose the size of the honeycomb grid.";

 intField -min 1 -ann "Iterations in X" itX;

 text -bgc 0.2 0.2 0.2 "x";

 intField -min 1 -ann "Iterations in Z" itZ;

 separator -st "in";

 button -label "Finish" -c gridGen finishButton;

 showWindow honeyCombWin2;

}

//generate trio of hexagonal prisms//

global proc honeyCombGenP1()

{

 circle -ch on -o on -nr 0 1 0 -r 6 -d 1 -s 6 -n honeycombBase1;

 duplicate -rr;

 move -r -10 0 0 ;

 duplicate -rr;

 setAttr "honeycombBase3.rotateX" 90;

 duplicate -rr;

 setAttr "honeycombBase4.rotateX" 0;

 setAttr "honeycombBase4.rotateZ" 90;

 select -tgl honeycombBase2 honeycombBase3 ;

 scale -r 0.25 0.25 0.25;

 select -tgl honeycombBase1 ;

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

 select -r honeycombBase2Shape honeycombBase3Shape honeycombBase4Shape ;

 select -tgl honeycombBase1 ;

 parent -s -r;

 select -r honeycombBase2 honeycombBase3 honeycombBase4 ;

 delete;

 select -r honeycombBase1 ;

 duplicate -rr;

 move -r 0 -5 0;

 select -r honeycombBase1 ;

 duplicate -rr;

 setAttr "honeycombBase6.rotateY" -60;

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

 select -r honeycombBase6Shape.cv[0:6] ;

 rotate -r -p 0cm 0cm 0cm -os 0 60 0 ;

 select -r honeycombBase6 ;

 scale -r 1.155 1.155 1.155;

 setAttr -lock true -keyable false -channelBox false "honeycombBase6.sx";

 setAttr -lock true -keyable false -channelBox false "honeycombBase6.sy";

 setAttr -lock true -keyable false -channelBox false "honeycombBase6.sz";

 setAttr -lock true -keyable false -channelBox false "honeycombBase6.tx";

 setAttr -lock true -keyable false -channelBox false "honeycombBase6.tz";

 setAttr -lock true -keyable false -channelBox false "honeycombBase6.rx";

 setAttr -lock true -keyable false -channelBox false "honeycombBase6.ry";

 setAttr -lock true -keyable false -channelBox false "honeycombBase6.rz";

 nurbsToPolygonsPref -f 2 -ut 3 -vt 3 -un 1 -vn 1 -pt 1;

 loft -n "honeyComb1" -ch 1 -u 1 -c 0 -ar 1 -d 3 -ss 1 -rn 0 -po 1 -rsn true "honeycombBase6Shape" "honeycombBase1Shape" "honeycombBase5Shape";

 duplicate -rr -ic;

 move -r 12 0 0;

 move 0 0 0 honeyComb2.scalePivot honeyComb2.rotatePivot;

 setAttr "honeyComb2.rotateY" 60;

 duplicate -rr -ic;

 setAttr "honeyComb3.rotateY" -60;

}

//create honeycomb grid//

global proc gridGen()

{

 $x = `intField -q -v itX`;

 $z = `intField -q -v itZ`;

 polyUnite -n honeyCombGrid1 -ch 1 -mergeUVSets 1 honeyComb3 honeyComb1 honeyComb2;

 polyMergeVertex -d 0.01 -am 1 -ch 1 honeyCombGrid1.vtx[0:1000000000];

 //iterations in X//

 for($a = 0; $a < ($x\*3); $a++)

 {

 duplicate -rr;

 move -r 12 0 0;

 }

 //combine X iterations//

 string $list[] = `ls "honeyCombGrid\*"`;

 int $Size = size ($list);

 for($b = 0; $b < $Size; $b++)

 {

 string $list[] = `ls "honeyCombGrid\*"`;

 int $Size = size ($list);

 if( catch( `polyUnite -n honeyCombGrid1 -ch 1 -mergeUVSets 1 $list[1] $list[3]`))

 {

 break;

 }

 else

 {

 doBakeNonDefHistory( 1, {"prePost" });

 }

 }

 //iterations in Z//

 for($c = 0; $c < $z; $c++)

 {

 duplicate -rr;

 move -r 6 0 31.18;

 }

 //combine Z iterations//

 string $list[] = `ls "honeyCombGrid\*"`;

 int $Size = size ($list);

 for($d = 0; $d < $Size; $d++)

 {

 string $list[] = `ls "honeyCombGrid\*"`;

 int $Size = size ($list);

 if( catch( `polyUnite -n honeyCombGrid1 -ch 1 -mergeUVSets 1 $list[1] $list[3]`))

 {

 break;

 }

 else

 {

 doBakeNonDefHistory( 1, {"prePost" });

 }

 }

 string $listSel[] = `ls -sl`;

 string $sel = $listSel[0];

 polyMergeVertex -d 0.01 -am 1 -ch 1 $sel.vtx[0:1000000000];

 select -r honeycombBase1 honeycombBase5 honeycombBase6 ;

 delete;

 deleteUI honeyCombWin2;

}