3DXpert™ for SOLIDWORKS®

TILTING OF SUPPORTS

Automatic

Tutorial_V2 - Updated: 14,0200,1599,1024(SP2)

3D SYSTEMS

Introduction

In this exercise, we will see that 3DXpert for SOLIDWORKS automatically tilts support structures.

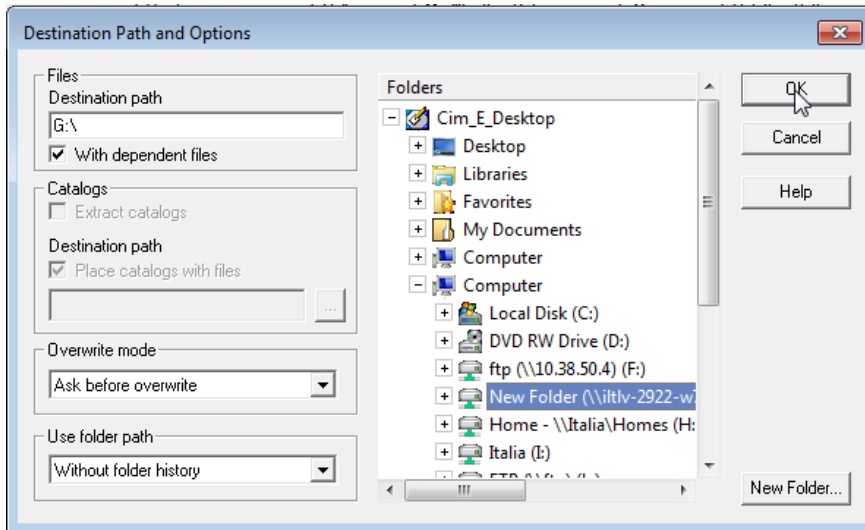|		
! Notice/ Remember		Left mouse button name is **"pick"**
		Middle mouse button name is **"Exit"**
		Right mouse button name is **"Click"**

1. Unpack the file Auto Tilting.ctf
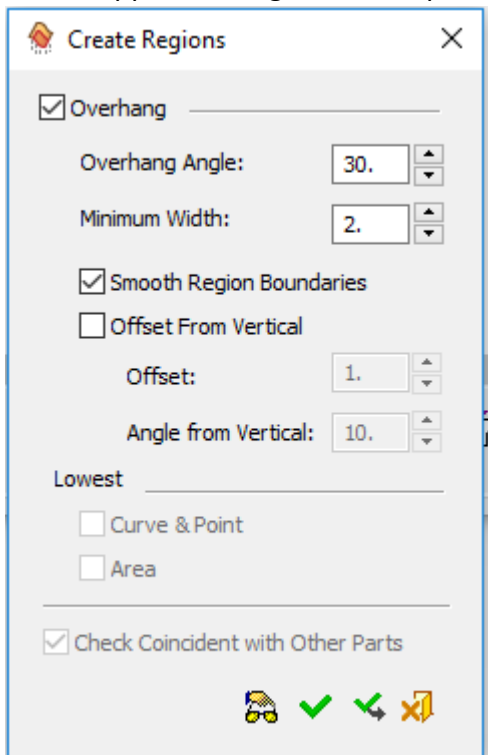   a. Select File>>Unpack and select the file Auto Tilting.ctf
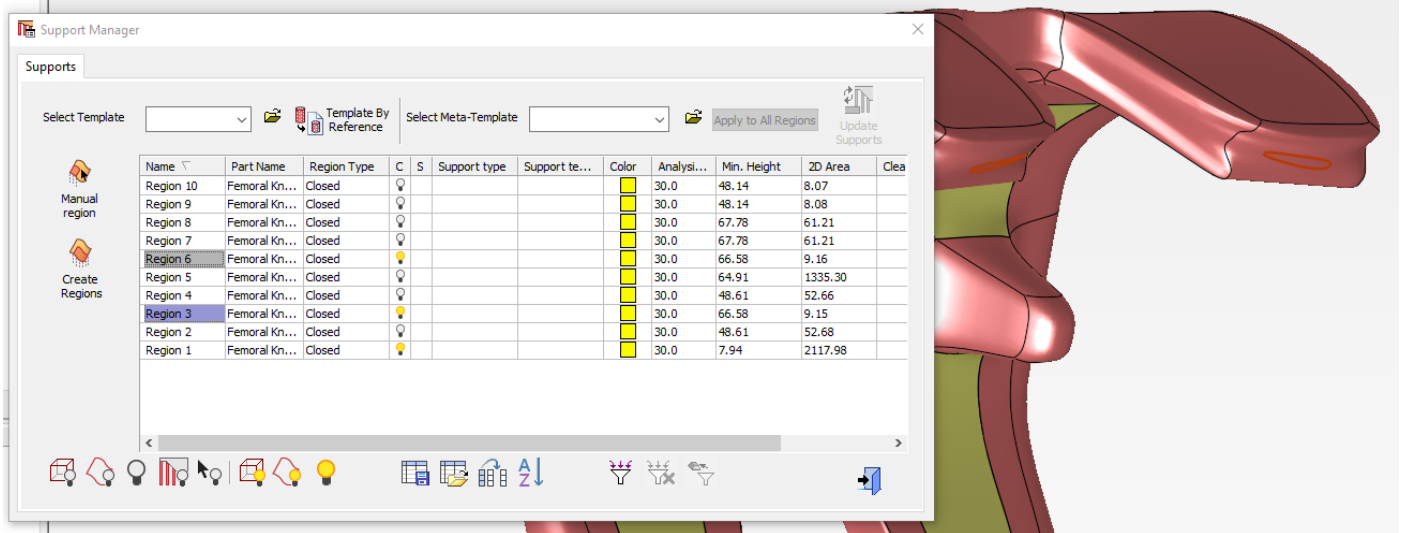

   b. Select Unpack
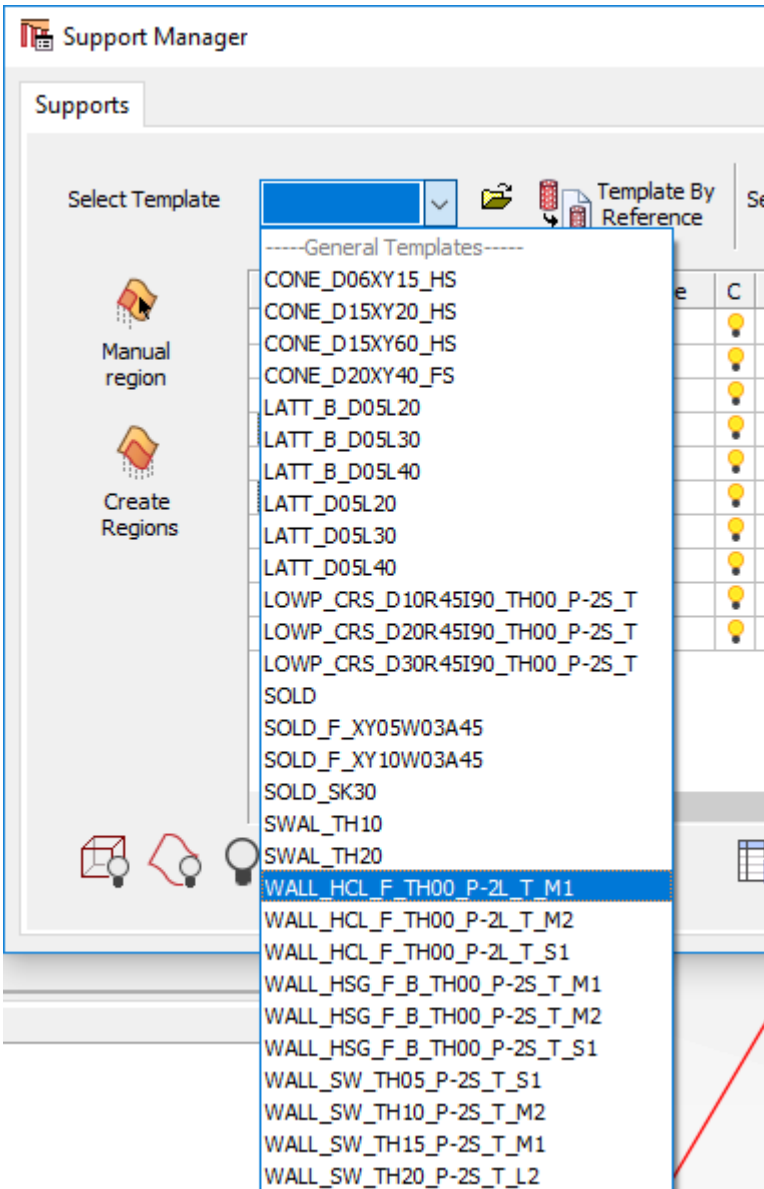
3D SYSTEMS
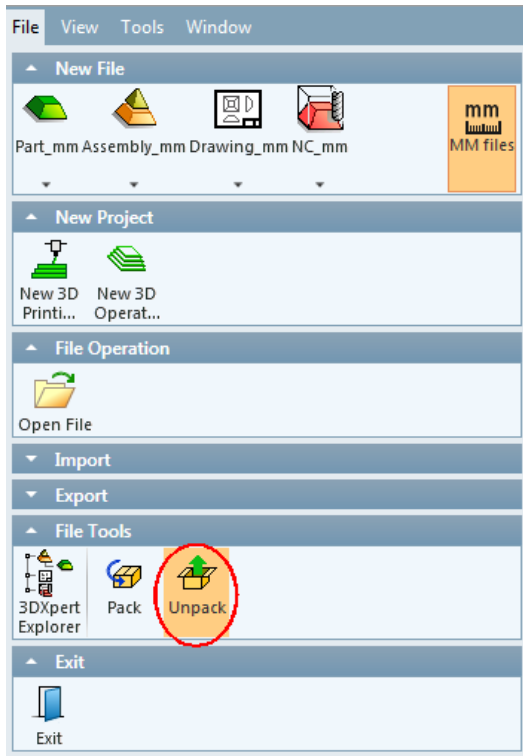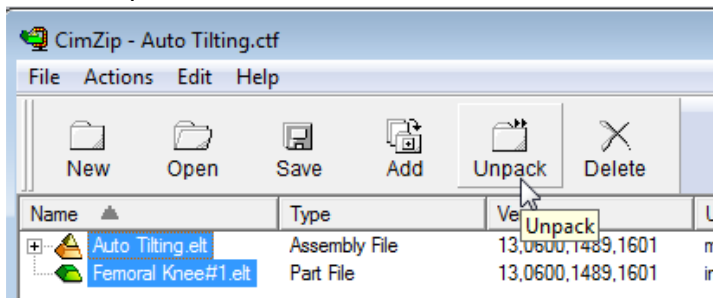
c. Set the destination and select ok

2. Load the assembly Auto Tilting.elt
3. Enter Support Manager>Set the parameters as below >Select OK

4. Select regions 3 and 6

Name ▽	Part Name	Region Type	C	S	Support type	Support te...	Color	Analysi...	Min. Height	2D Area	Clea
Region 10	Femoral Kn...	Closed						30.0	48.14	8.07	
Region 9	Femoral Kn...	Closed						30.0	48.14	8.08	
Region 8	Femoral Kn...	Closed						30.0	67.78	61.21	
Region 7	Femoral Kn...	Closed						30.0	67.78	61.21	
Region 6	Femoral Kn...	Closed						30.0	66.58	9.16	
Region 5	Femoral Kn...	Closed						30.0	64.91	1335.30	
Region 4	Femoral Kn...	Closed						30.0	48.61	52.66	
Region 3	Femoral Kn...	Closed						30.0	66.58	9.15	
Region 2	Femoral Kn...	Closed						30.0	48.61	52.68	
Region 1	Femoral Kn...	Closed						30.0	7.94	2117.98	

5. Select the template marked in the image below ('WALL_CROSS')

-----General Templates-----
CONE_D06XY15_HS
CONE_D15XY20_HS
CONE_D15XY60_HS
CONE_D20XY40_FS
LATT_B_D05L20
LATT_B_D05L30
LATT_B_D05L40
LATT_D05L20
LATT_D05L30
LATT_D05L40
LOWP_CRS_D10R45I90_TH00_P-2S_T
LOWP_CRS_D20R45I90_TH00_P-2S_T
LOWP_CRS_D30R45I90_TH00_P-2S_T
SOLD
SOLD_F_XY05W03A45
SOLD_F_XY10W03A45
SOLD_SK30
SWAL_TH10
SWAL_TH20
WALL_HCL_F_TH00_P-2L_T_M1
WALL_HCL_F_TH00_P-2L_T_M2
WALL_HCL_F_TH00_P-2L_T_S1
WALL_HSG_F_B_TH00_P-2S_T_M1
WALL_HSG_F_B_TH00_P-2S_T_M2
WALL_HSG_F_B_TH00_P-2S_T_S1
WALL_SW_TH05_P-2S_T_S1
WALL_SW_TH10_P-2S_T_M2
WALL_SW_TH15_P-2S_T_M1
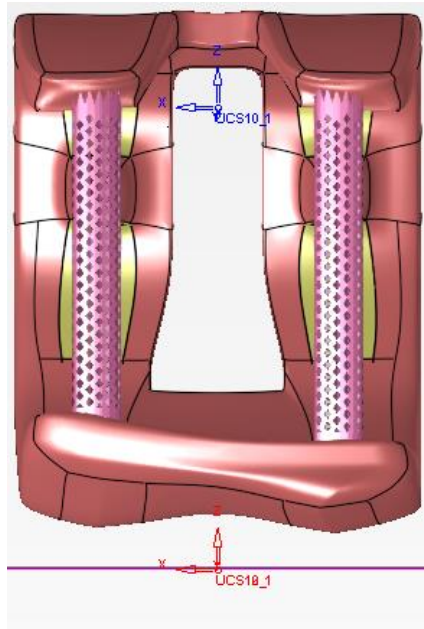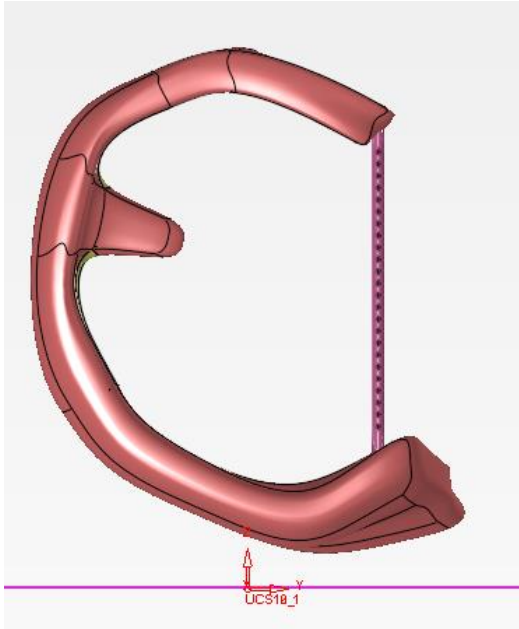WALL_SW_TH20_P-2S_T_L2

! Notice	The naming convention of the templates is explained in a separate document

6. See that the support touches the part

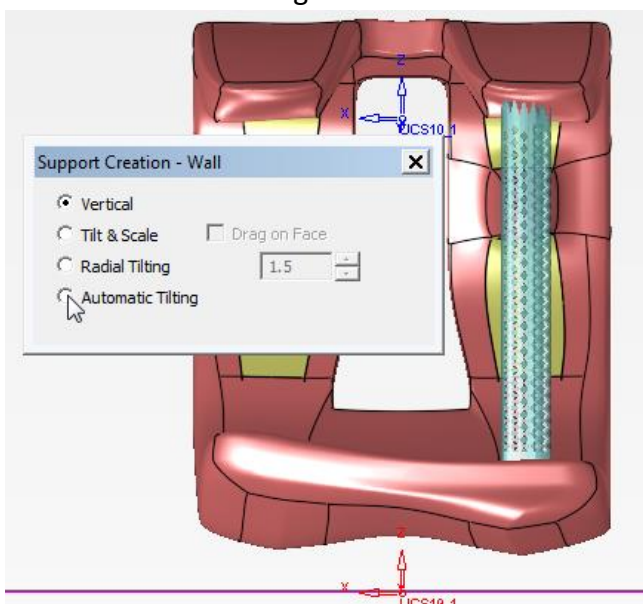7. At this point we can add manual tilting or let the system perform the tilting automatically

   Note:
   The automatic tilting makes such tilting that the created support (any type) does not intersect with the part (at least 1 mm)

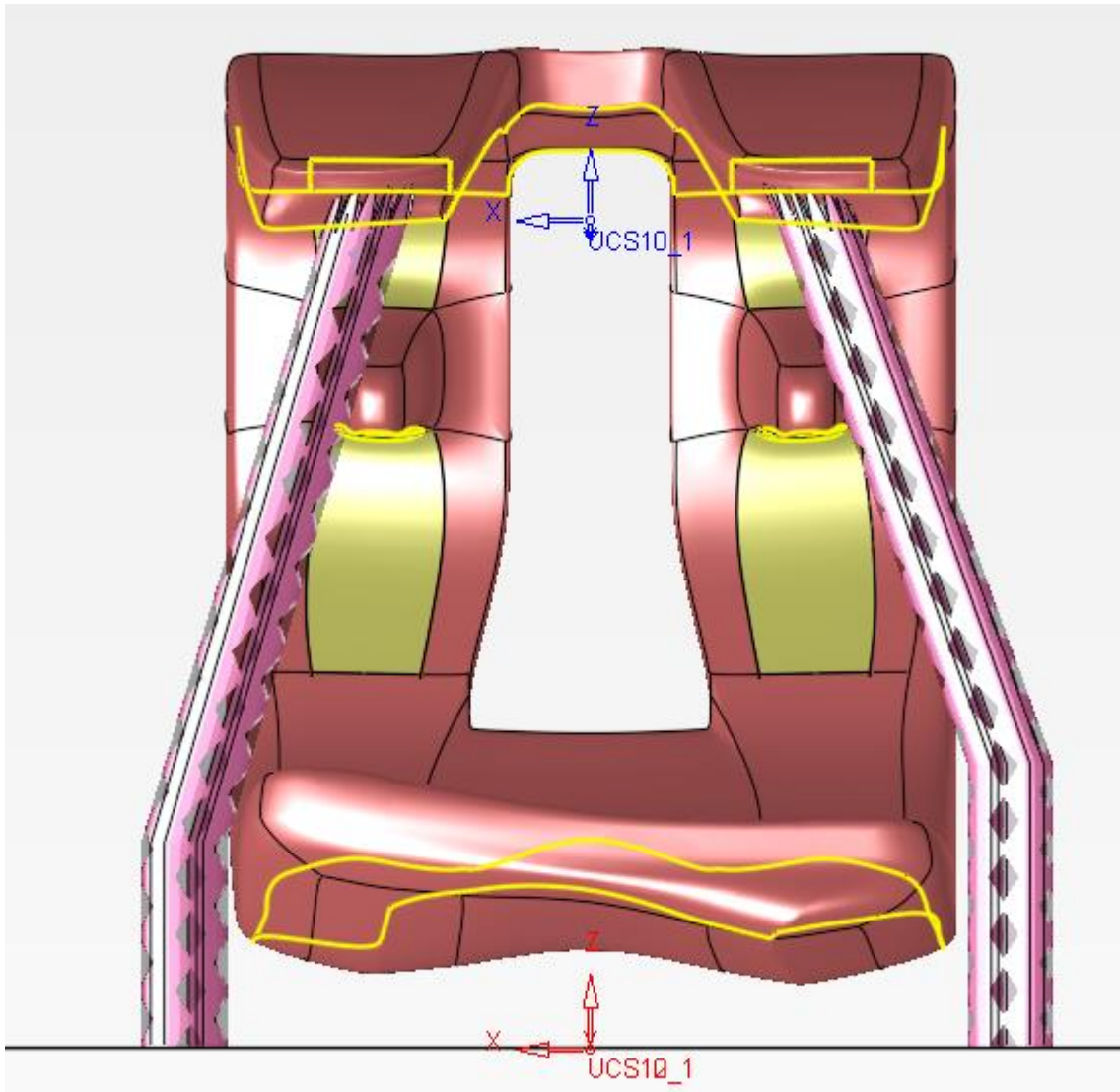8. RMB on region 3_1 and select 'Edit Tilting'
9. Select Automatic tilting

Support Creation - Wall

- ⦿ Vertical
- ○ Tilt & Scale   ☐ Drag on Face
- ○ Radial Tilting   1.5
- ○ Automatic Tilting

10. See that the support automatically moved away from the part
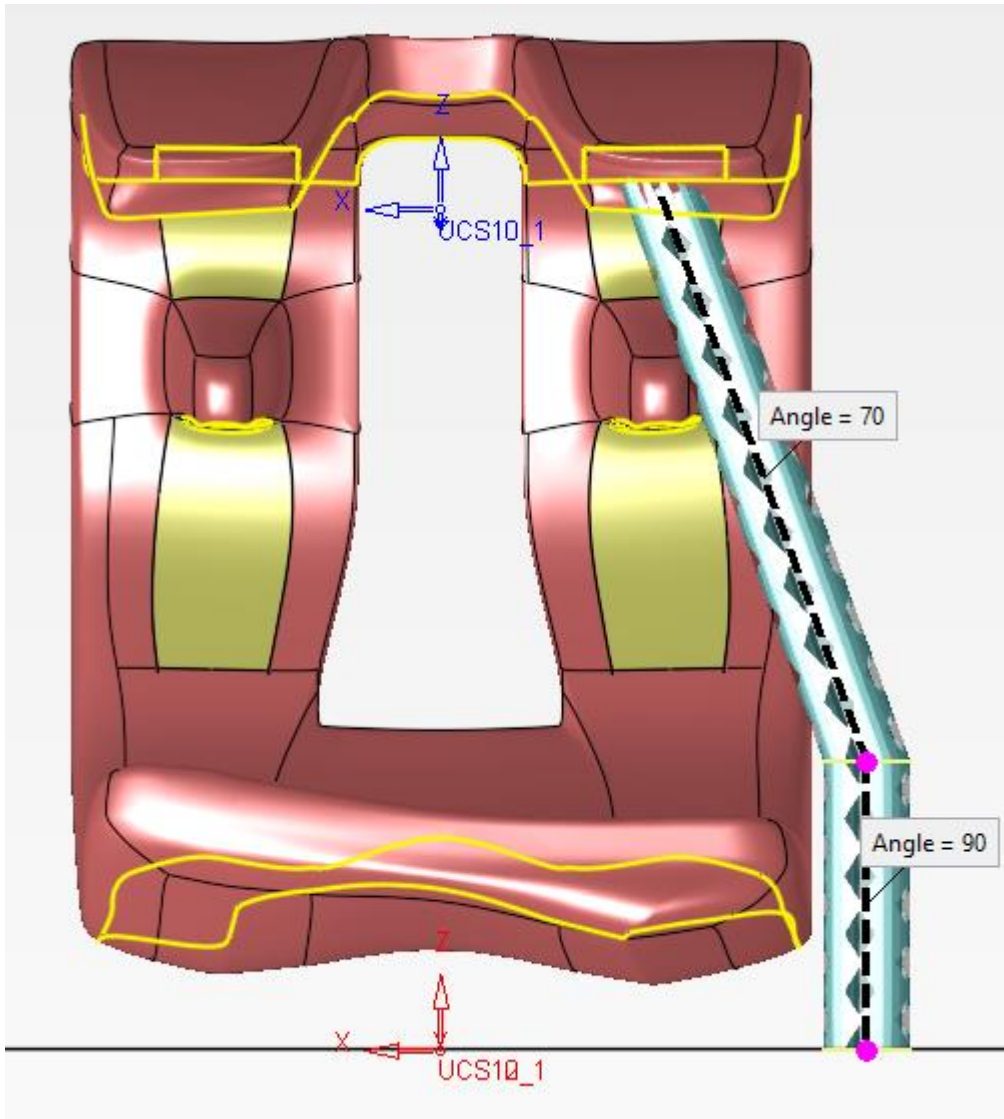
11. Select Ok and repeat the operation on region number 6_1

The final result:

End of Exercise.