

## TILTING OF SUPPORTS Automatic

Tutorial\_V1 - Updated: 13,0600,1489,1621(SP6)





## Introduction

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

	Left mouse button name is " <i>pick</i> "
Notice/	Middle mouse button name is " <i>Exit</i> "
Remember	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

🧐 CimZip - Au	uto Tiltin	ng.ctf				
File Actions	Edit	Help				
Dew New	🗇 Open	Save	<b>⊡</b> Add	Unpack	X Delete	
Name 🔺	Туре		VeUnn	U		
🕘 🕀 🕰 🗛 🕂	ing.elt	Assembly	y File	13,0600	,1489,1601	m
Emoral	Knee#1	elt Part File		13,0600	,1489,1601	in





## c. Set the destination and select ok

estination Path and Options			<b>—</b> ×
Files Destination path	Folders	•	95
G:\	- 🛃 Cim_E_Desktop		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
✓ With dependent files	+ 📃 Desktop		Cancel
Catalogo	+ 📷 Libraries		
Extract catalogs	+ 🙀 Favorites	Ξ	Help
	🛨 🚮 My Documents		
Destination path	🛨 🌉 Computer		
Place catalogs with files	– 💻 Computer		
	+ 🕰 Local Disk (C:)		
Querurite mode	+ 🏭 DVD RW Drive (D:)		
	+ 💭 ftp (\\10.38.50.4) (F:)		
Ask before overwrite	🕂 🚍 New Folder (\\iltlv-2922-\	v.	
	+ 🗭 Home - \\Italia\Homes (H	ł	
Use folder path	+ 🛱 Italia (I:)		
Without folder history		Ŧ	New Felder
	<		New Folder

- 2. Load the assembly Auto Tilting.elt
- 3. Enter Support Manager>Select the entire part >Select OK

🛞 Create Regions 🛛 💽
Verhang
Overhang Angle: 30.
Minimum Width: 2. 🚔 mm
Smooth Region Boundaries
Lowest
Curve & Point
Area
a 🗸 🔨 🙀

4. Select regions 5 and 7





5. Select the template marked in the image below ('WALL\_CROSS')

Select Template	Template By Select Meta-Template			- 🖻	Apply to All	ply to All Regions	
	SOLID-WALL_THK-2.0						
A.	SOLID_BLUCK		Analysi	Min, Height	2D Area	Ease o	
	SOLID_BLUCK_SKIRT-1.0	i î	50.0	23.03	637 73	0.93	
Manual	-SOLID_BLUCK_SKIRT-3.0	1	50.0	16.90	27.07	0.99	
region	SOLID_FRAG-10.0_SPC-1.0	-	50.0	49.17	00.40	0.00	
	SOLID_FRAG-10.0_SPC-3.0	-	50.0	44.65	10.50	0.07	
$\sim$	_SOLID_FRAG-15.0_SPC-3.0	-	50.0	44.05	10.50	0.07	
1	SOLID_FRAG-15.0_SPC-5.0	-	50.0	23.03	637.73	0.94	
Create	SOLID_FRAG-5.0_SPC-1.0		50.0	23.03	637.73	0.97	
Regions	SOLID_FRAG-5.0_SPC-3.0		50.0	9.82	769.06	0.95	
	WALL_BLADE_H-500		50.0	5.00	216.92	1.00	
	WALL_BLADE_L-500		50.0	38.11	88.63	0.69	
₿ ⟨} ⟨	WALL_HATCH-1.0x45deg_RB_THK-0.0_DIAM_TEETH-1.5x2.5_SBASE-3. WALL_HATCH-1.0x45deg_FRG-2.0_THK-0.0_DIAM_TEETH-1.0x1.2 WALL_HATCH-1.0x45deg_FRG-2.0_THK-0.0_DIAM_TEETH-1.5x2.5 WALL_HATCH-1.0x45deg_THK-0.0_DIAM_TEETH-1.5x2.5_SBASE-3.0 WALL_HATCH-1.5x45deg_FRG-3.0_THK-0.0_DIAM_TEETH-1.0x2.0 WALL_HATCH-1.5x45deg_FRG-3.0_THK-0.0_DIAM_TEETH-1.0x2.0 WALL_HATCH-1.5x45deg_FRG-3.0_THK-0.0_DIAM_TEETH-1.5x2.5 WALL_HATCH-3.0x45deg_FRG-6.0_THK-0.0_DIAM_TEETH-1.5x2.5 WALL_HATCH-3.0x45deg_FRG-6.0_THK-0.0_DIAM_TEETH-1.5x2.5 WALL_HATCH-3.0x45deg_FRG-6.0_THK-0.0_DIAM_TEETH-1.5x2.5 WALL_THK-0.5_DIAM_TEETH-1.225x2.5 WALL_THK-0.75_DIAM_TEETH-1.225x2.5 WALL_THK-1.00_DIAM_TEETH-1.225x2.5	=				-	
	WALL_THK-1.50_DIAM_TEETH-2.0x3.0						
	WALL_THK-1.50_DIAM_TEETH-2.0x3.0 WALL_THK-2.00_DIAM_TEETH-2.0x3.0 WALL_THK-2.50_DIAM_TEETH-2.5x3.0						

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



TILTING OF SUPPORTS

Notice



## 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 5 and select 'Edit Tilting'
- 9. Select Automatic tilting



10. See that the support automatically moved away from the part



11. Select Ok and repeat the operation on region number 7





The final result:



End of Exrcise.

