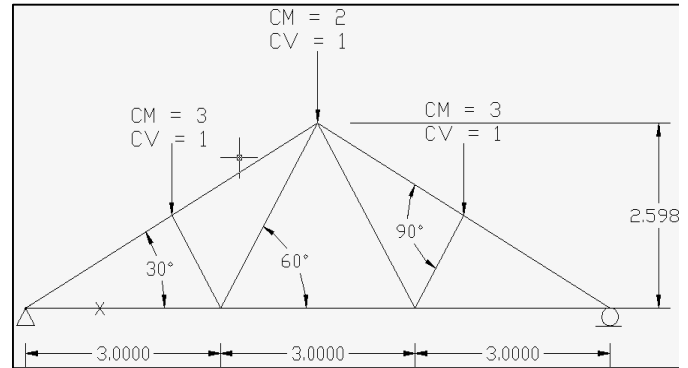


Obtener las fuerzas axiales en las barras y las reacciones debido a los siguientes estados de carga:

a.- CM (carga muerta)

b.- CV (carga viva)

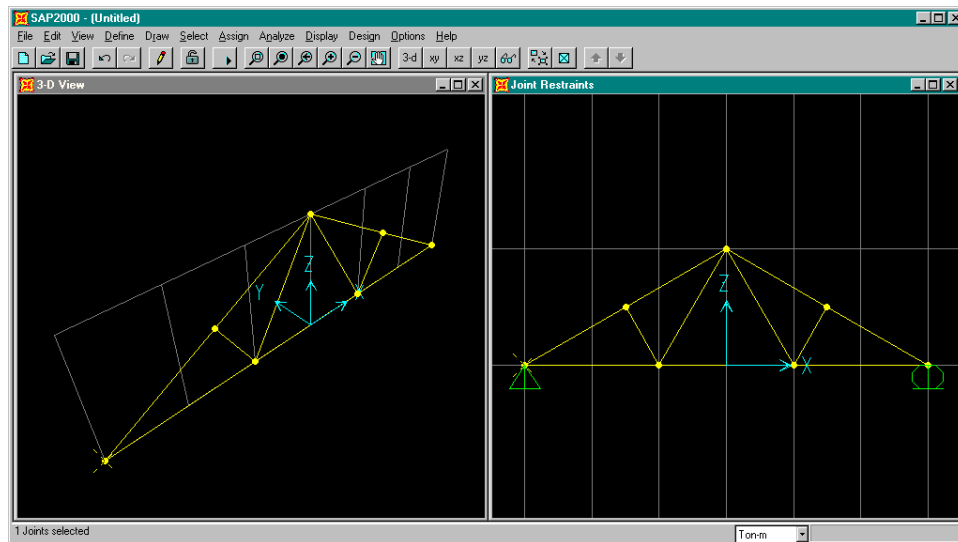
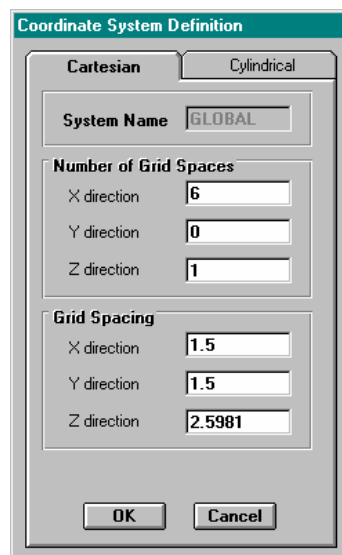
c.- $PU = 1.2CM + 1.6CV$ (carga última)
Ademas diseñar la estructura.



1.- Unidades: (Tn-m)

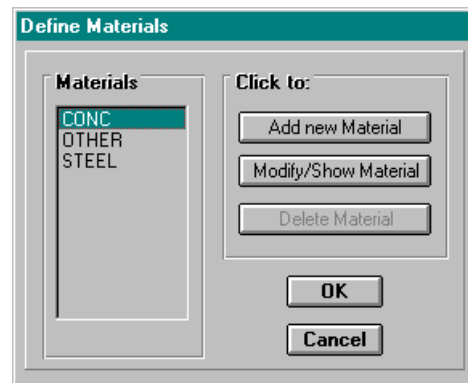
2.- New Model:

Estamos trabajando en coordenadas cilindricas:

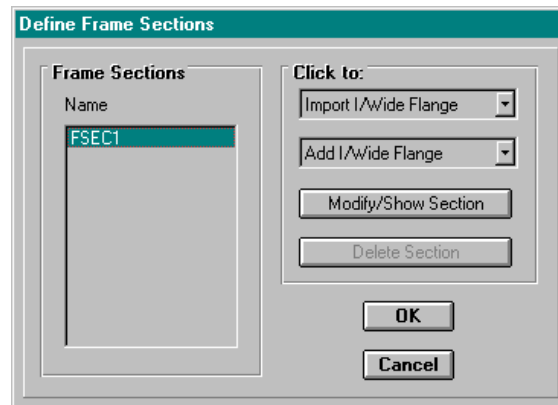


3.- Define de apoyos

4.- Definicion de materiales

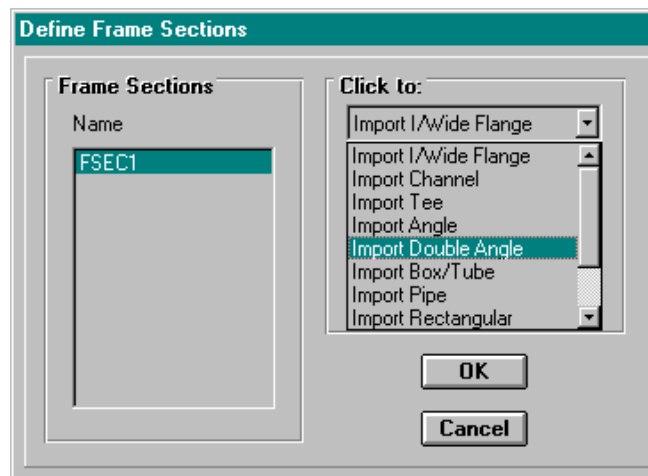


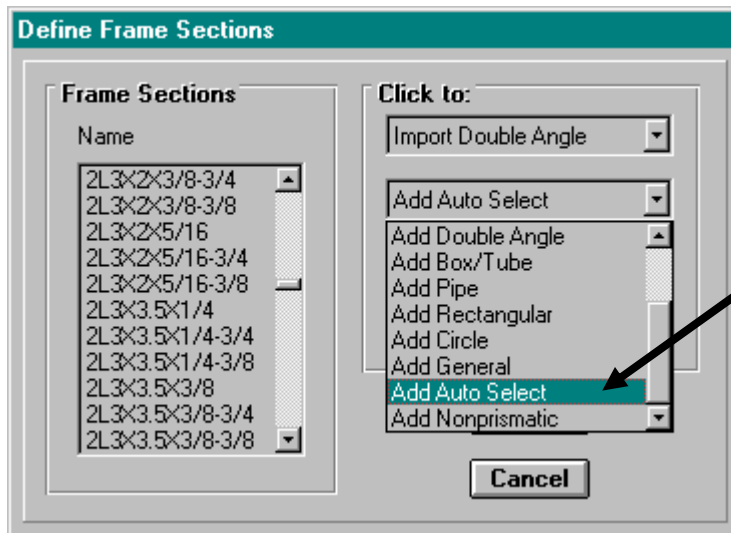
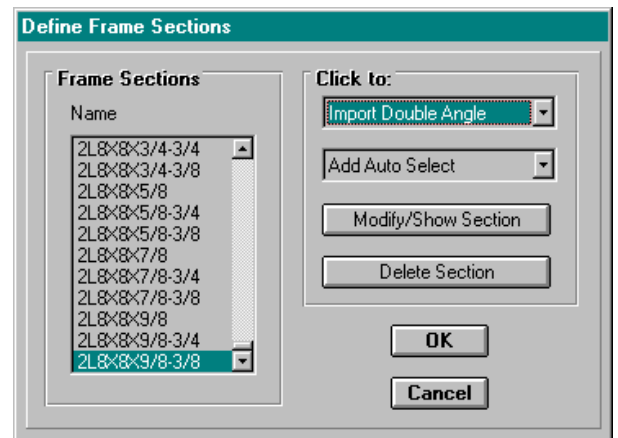
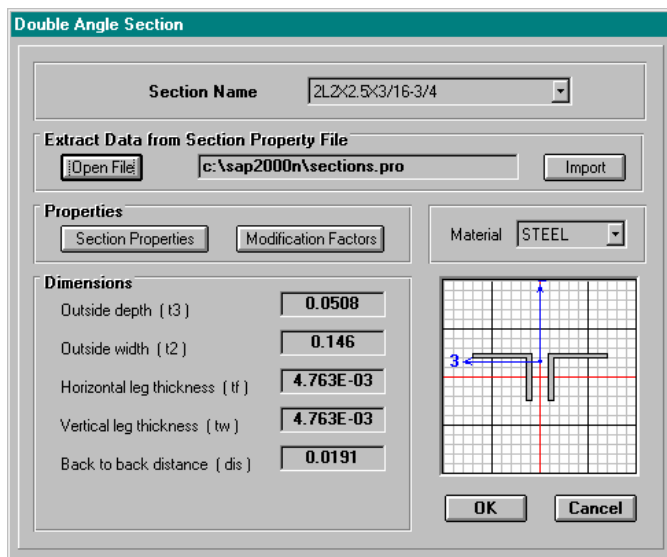
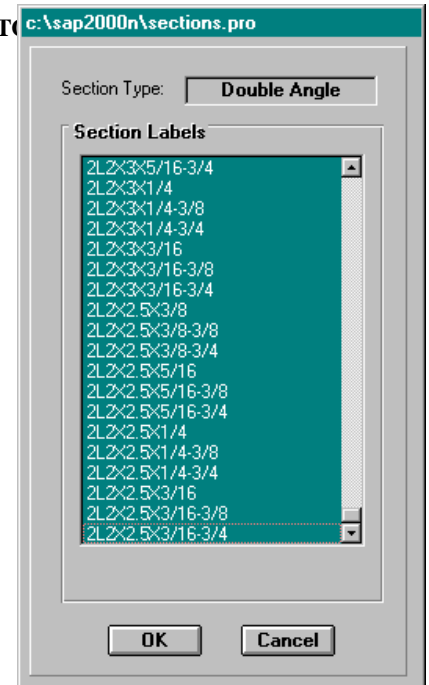
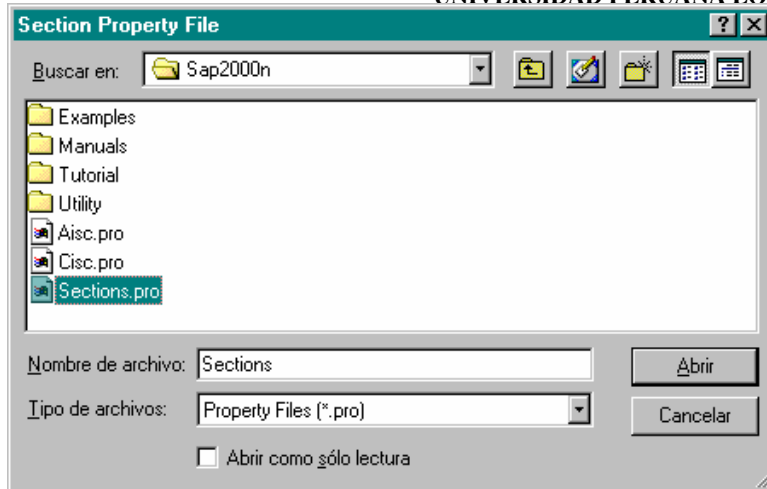
5.- Definicion de secciones (define frame sections)



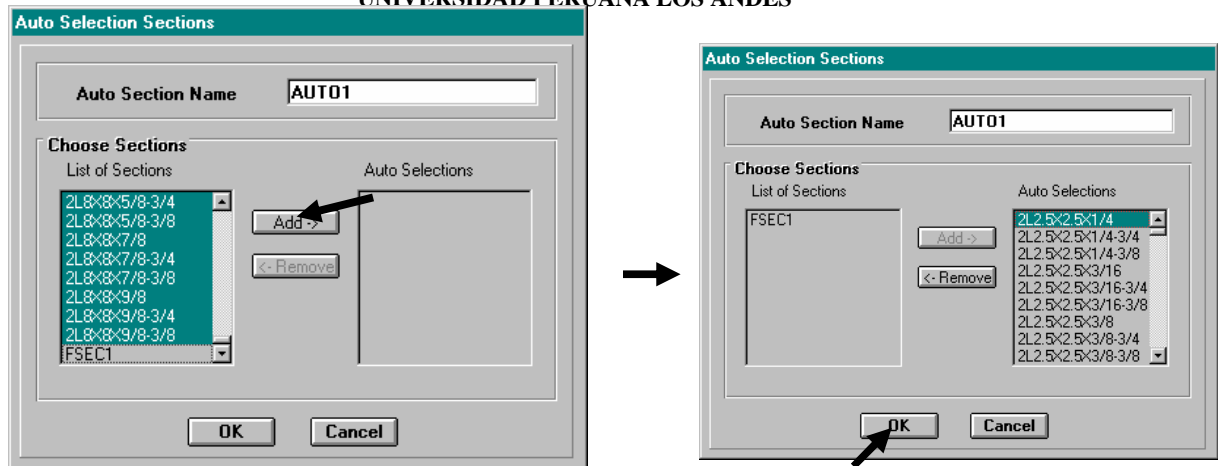
Traccion Abajo

Compresion Arriba

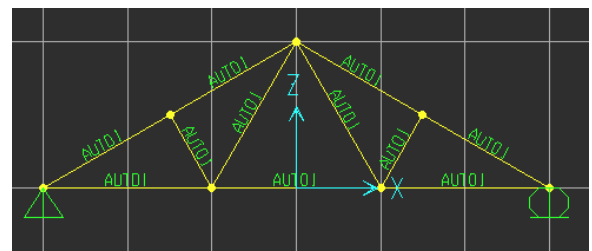
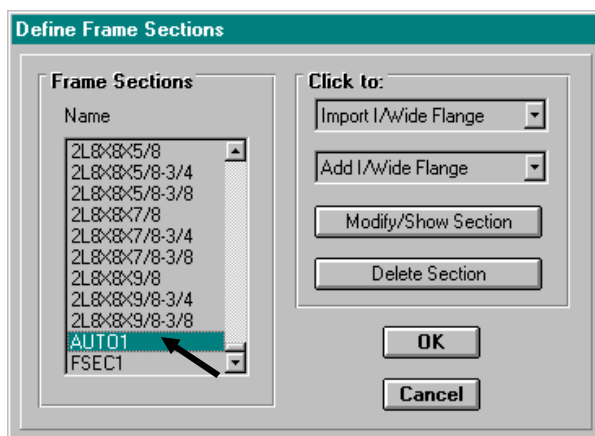
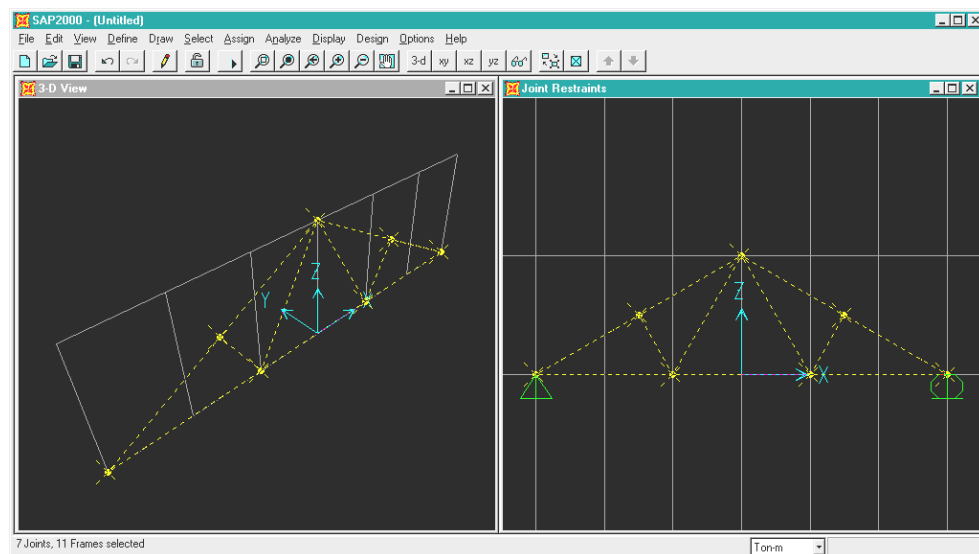


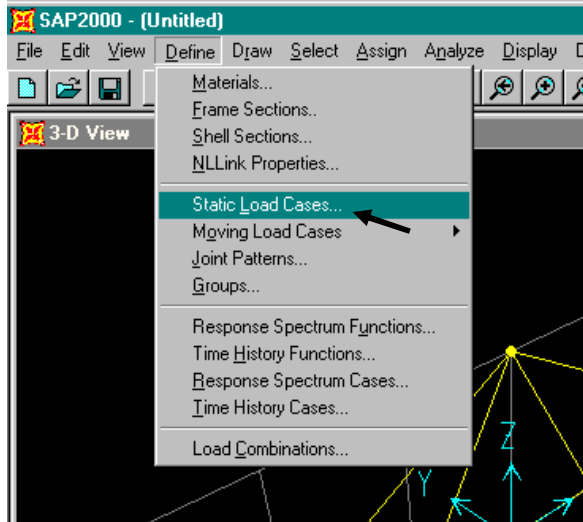


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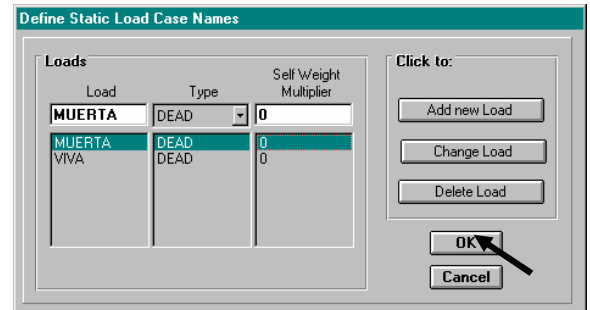


6.- Asignar Las secciones:

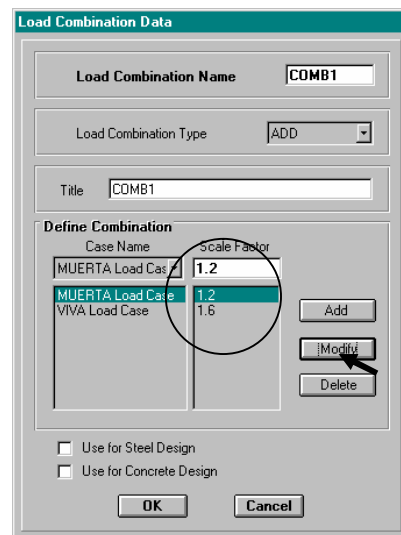
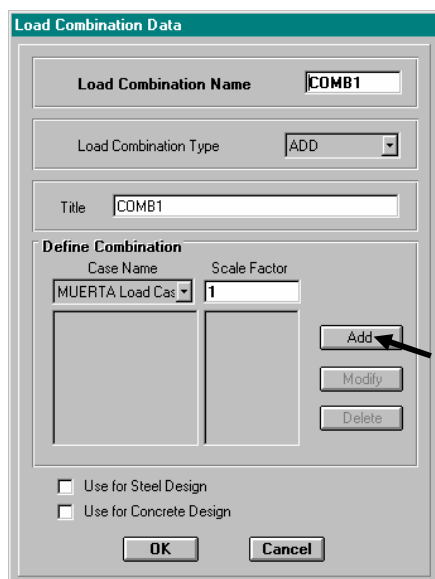
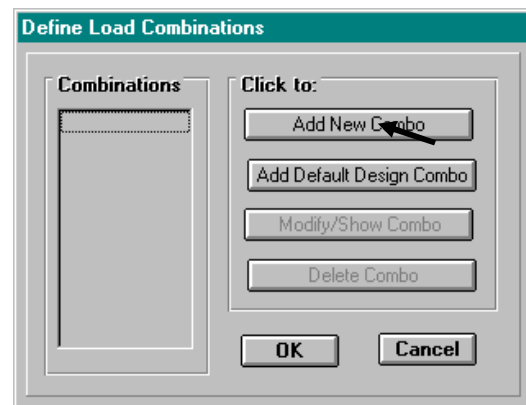
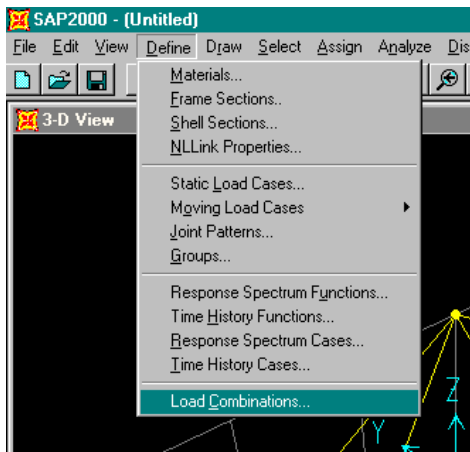


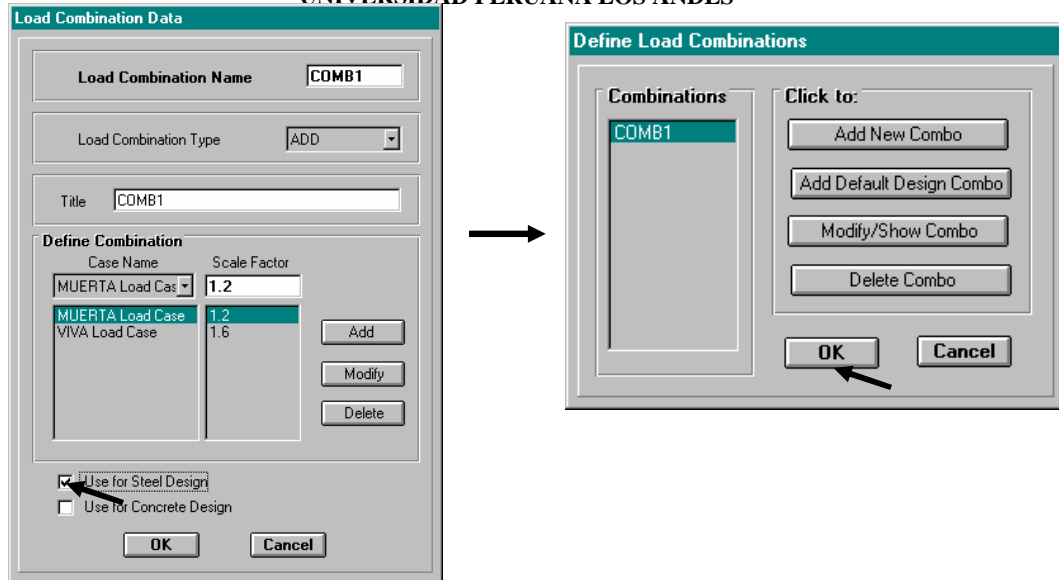


Para que no se produzca momentos flectores

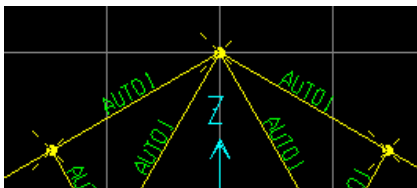


8.- Combinaciones de Cargas:





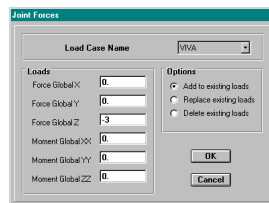
9.Cargas de la Estructurta:



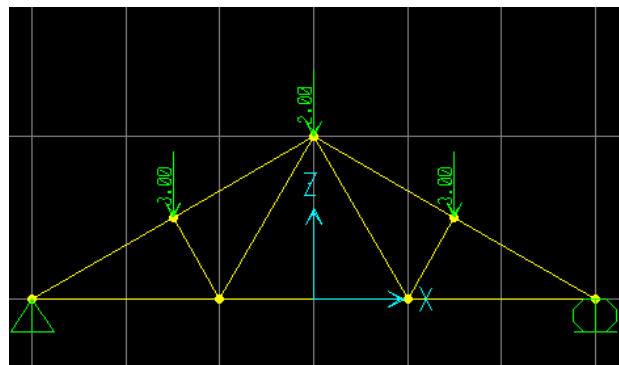
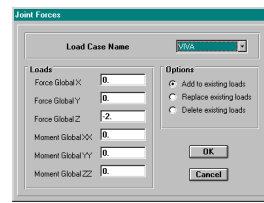
Cargando Viva y Muerta:
 Carga Muerta (-1 Tn)



Carga Viva (-3Tn)

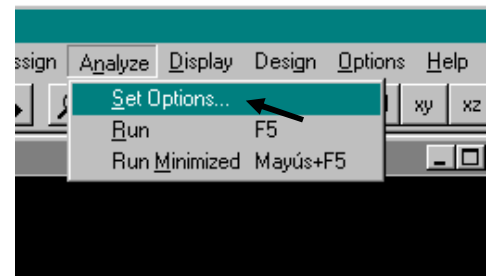
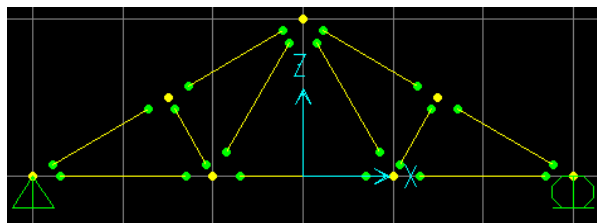
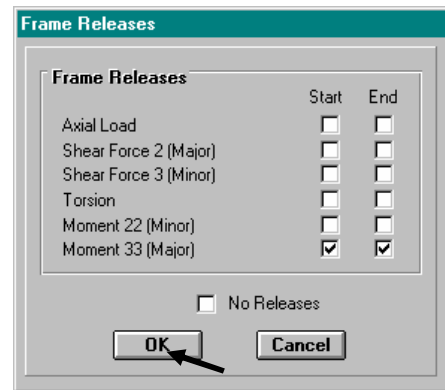
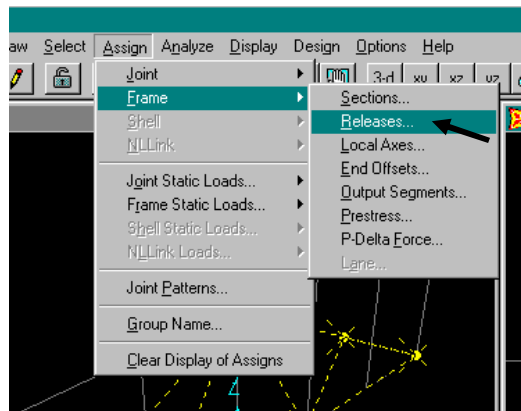


Carga Viva (-2 Tn)

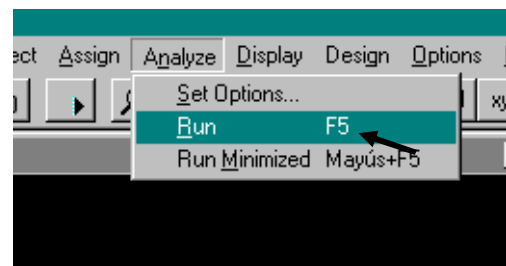
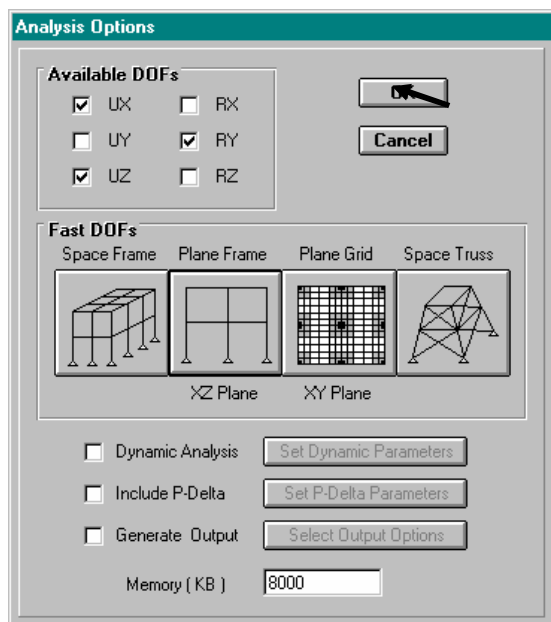


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Para quitar el giro realizamos el **RELEASE**:



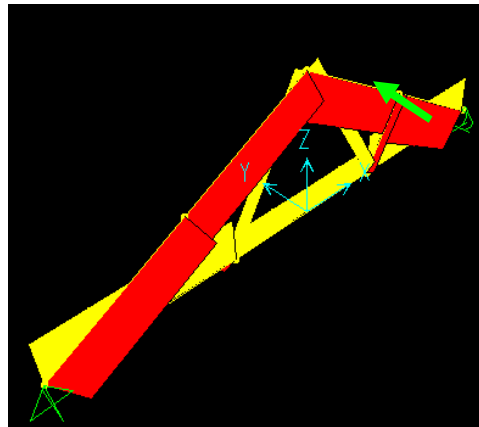
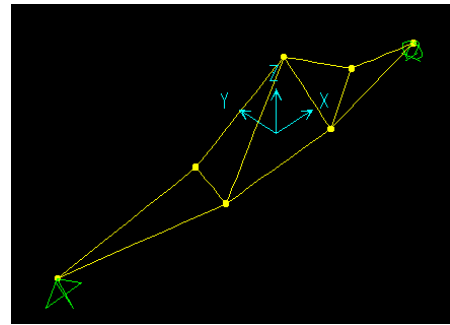
10.- Analysis:



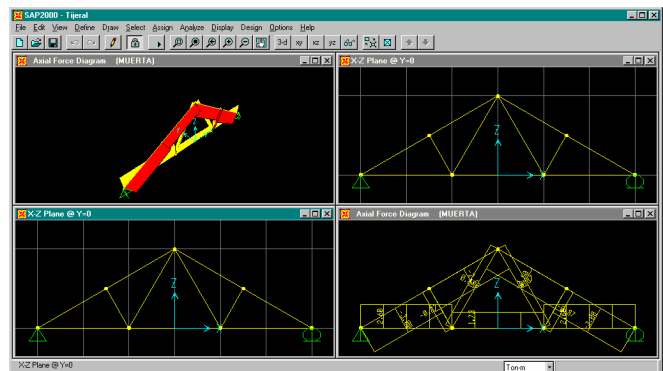
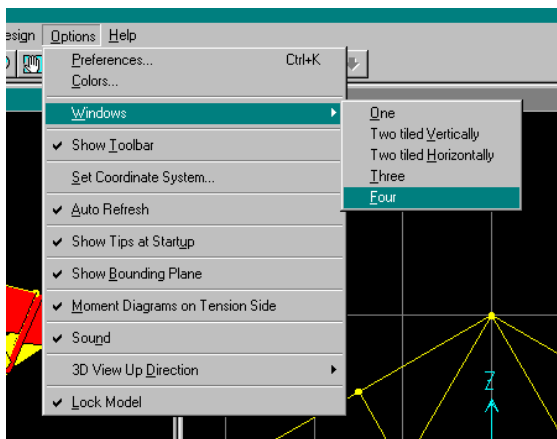
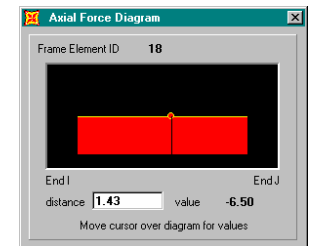
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Deformada

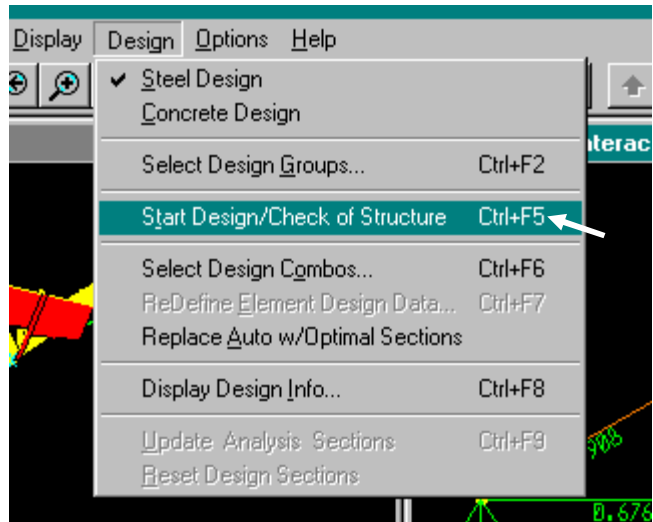
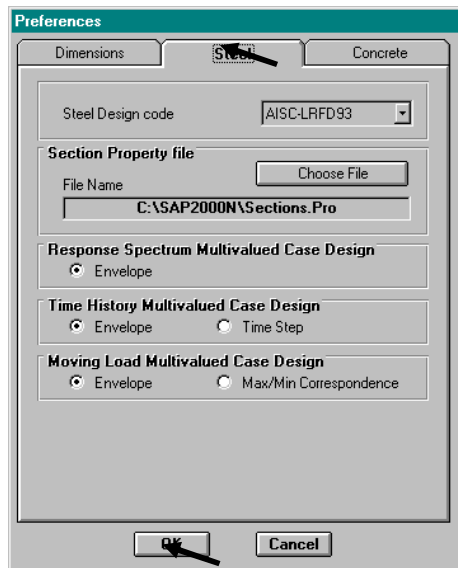
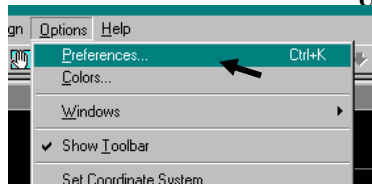


Clic con el boton derecho

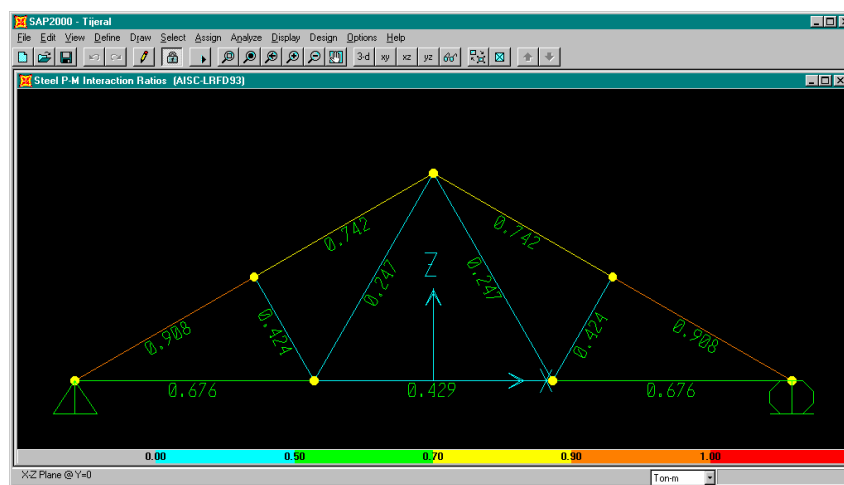


ASD: Metodo de servicio
 AISC: Carga de Rotura

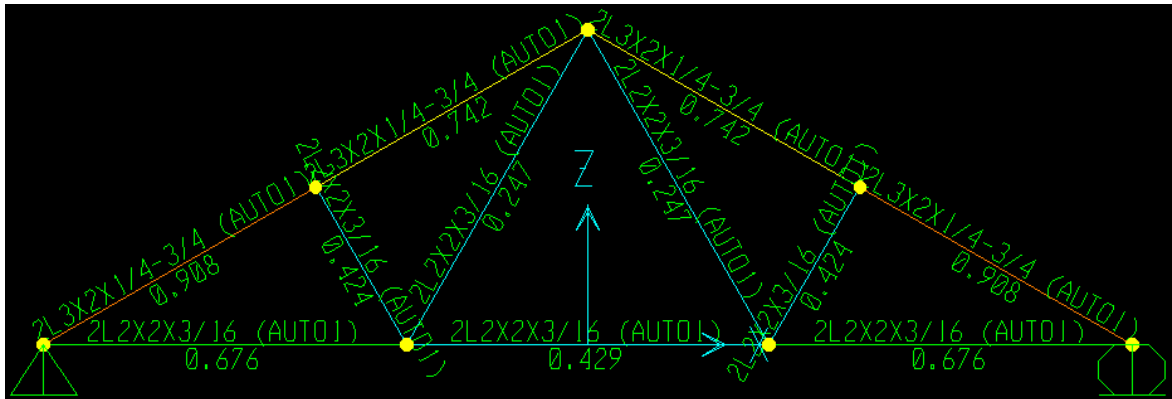
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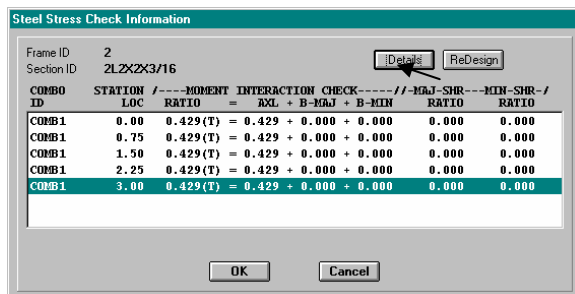
Los colores indican: En que medida las barras estan trabajando (niveles de esfuerzo)



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Con el boton derecho hacer click en cualquier barra



Steel Stress Check Information AISC-LRFD93

Units: Ton-m

Frame ID: 2 Station Loc: 3.000 Section ID: 2L2X2X3/16
 Element Type: Moment Resisting Classification: Non-Compact

$L=3.000$
 $b=9.226E-04$ $h=122-0.000$ $h_0=133-0.000$ $r_{xx}=1.333E-05$ $r_{yy}=1.124E-05$
 $I_x=2.267E-06$ $I_y=2.267E-06$ $J=2.267E-06$ $r_{xy}=0.000$ $r_{yz}=0.000$

P-H03-H22 Demand/Capacity Ratio is 0.429 = 0.429 + 0.000 + 0.000

STRESS CHECK FORCES & MOMENTS		P	H03	H22	U2	U3
Combo	COMB1	9.007	0.000	0.000	0.000	0.000

AXIAL FORCE & BIAXIAL MOMENT DESIGN (W1-1a)		Pu	phi*Pu	phi*Pu	phi*Pu	phi*Pu	phi*Pu	phi*Pu	phi*Pu
		Load	Strength	Strength	Strength	Strength	Strength	Strength	Strength
Axial		9.007	0.000	21.016					
	Moment	0.000	0.142	1.000	1.000	1.000	1.000	1.000	1.000
Major Bending		0.000	0.108	1.000	1.000	1.000	1.000	1.000	1.000
Minor Bending		0.000	0.000	1.000	1.000	1.000	1.000	1.000	1.000

SHEAR DESIGN		Vu	phi*Vu	Stress Ratio
Major Shear		0.000	6.613	0.000
Minor Shear		0.000	6.613	0.000



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charlescivil@hotmail.com