

# NAPA Geometry Definition

Oblivion

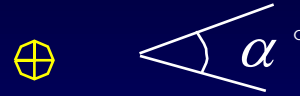
2008.4



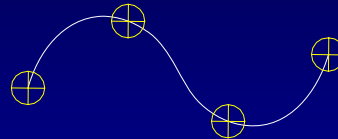
江苏科技大学  
船海学院

# NAPA 几何模型的建立流程

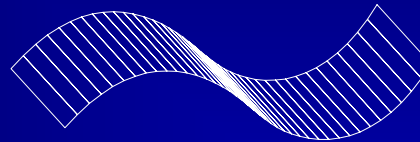
Points, angles



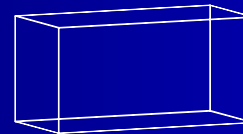
Curves



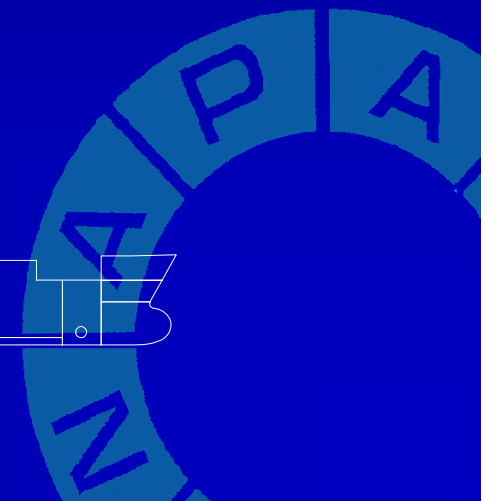
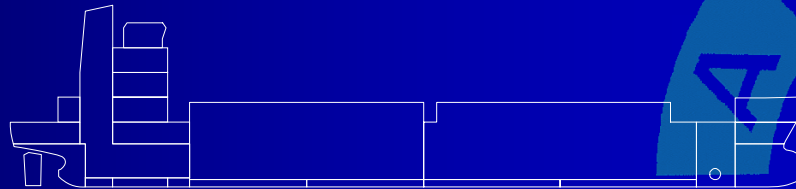
Surfaces



Rooms

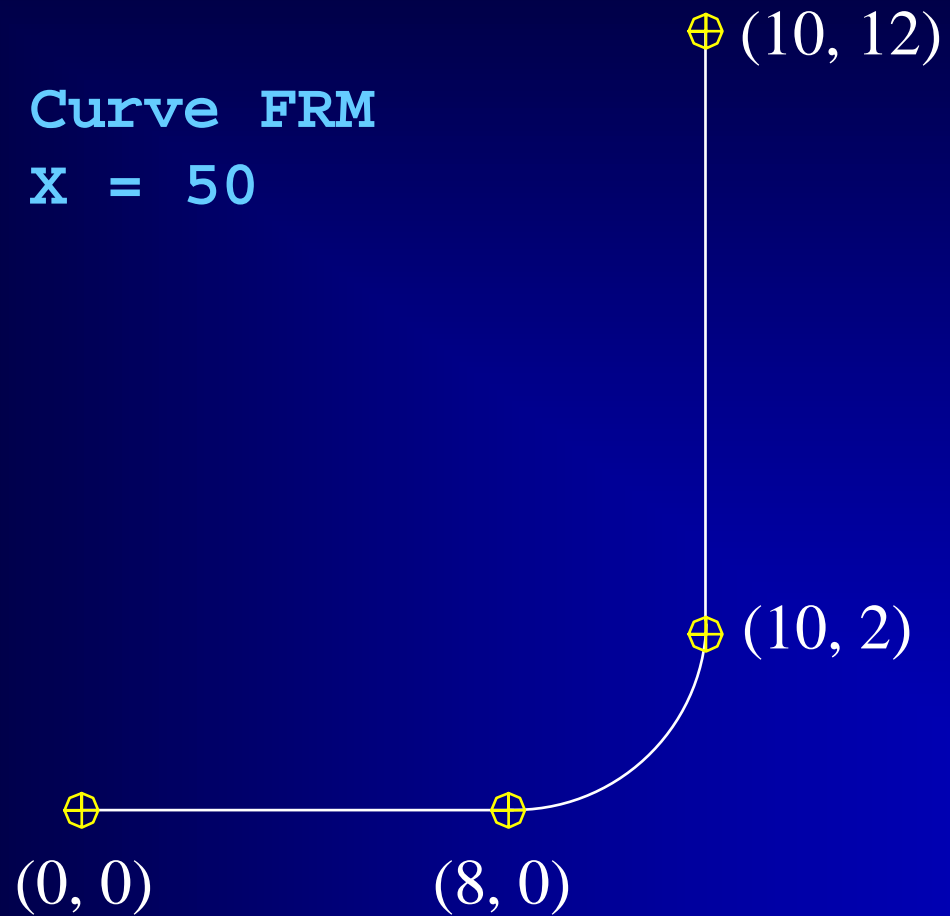


Arrangements



# Exercise 1

Curve FRM  
 $x = 50$



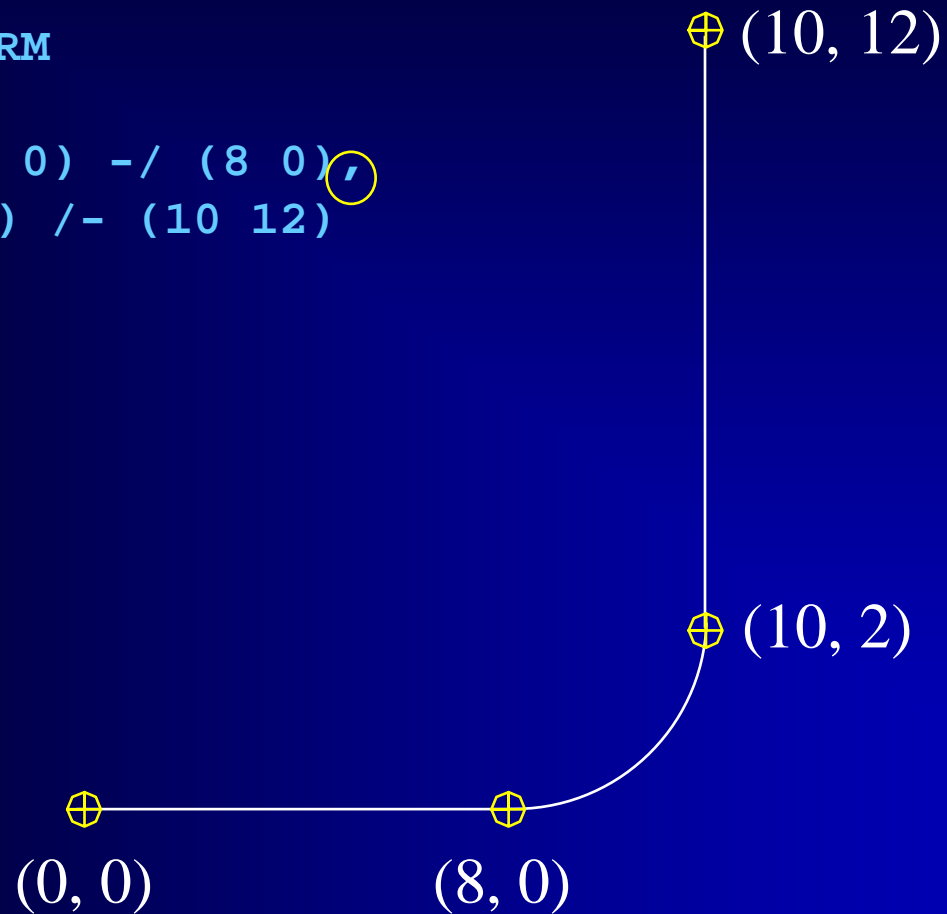
# Exercise 1: Answer

CUR FRM

X 50

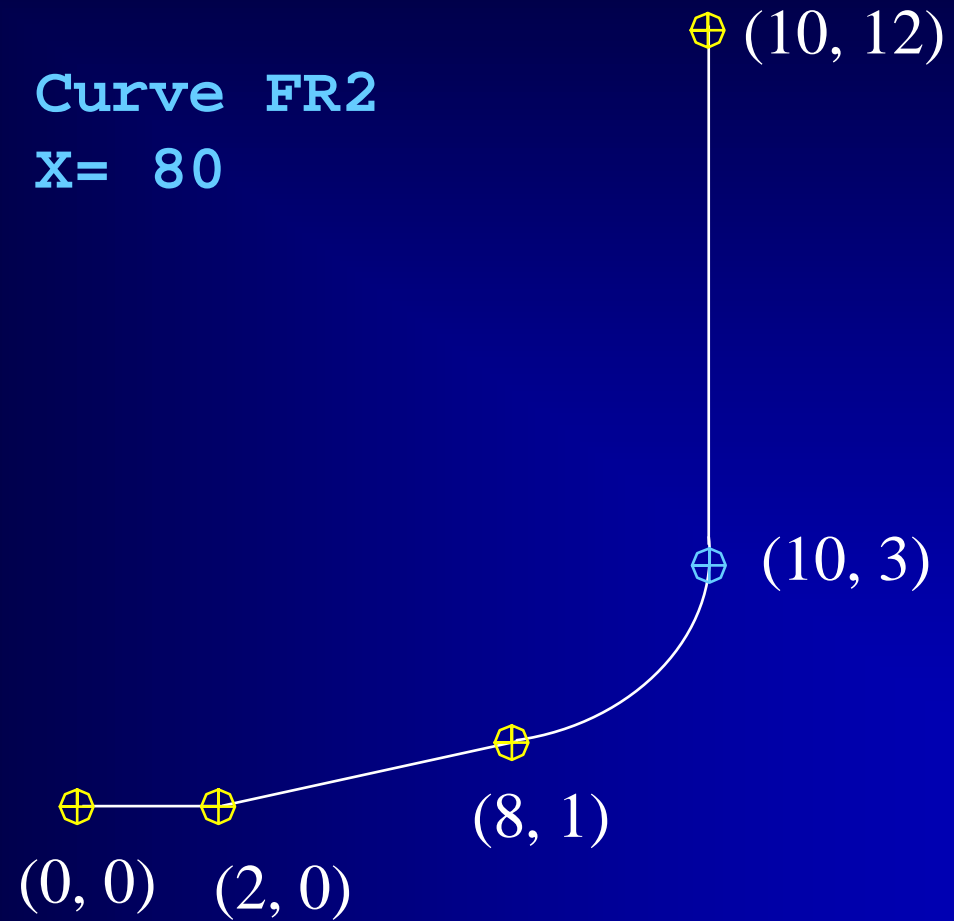
YZ (0 0) -/ (8 0) ,

(10 2) /- (10 12)



# Exercise 2

Curve FR2  
 $x = 80$

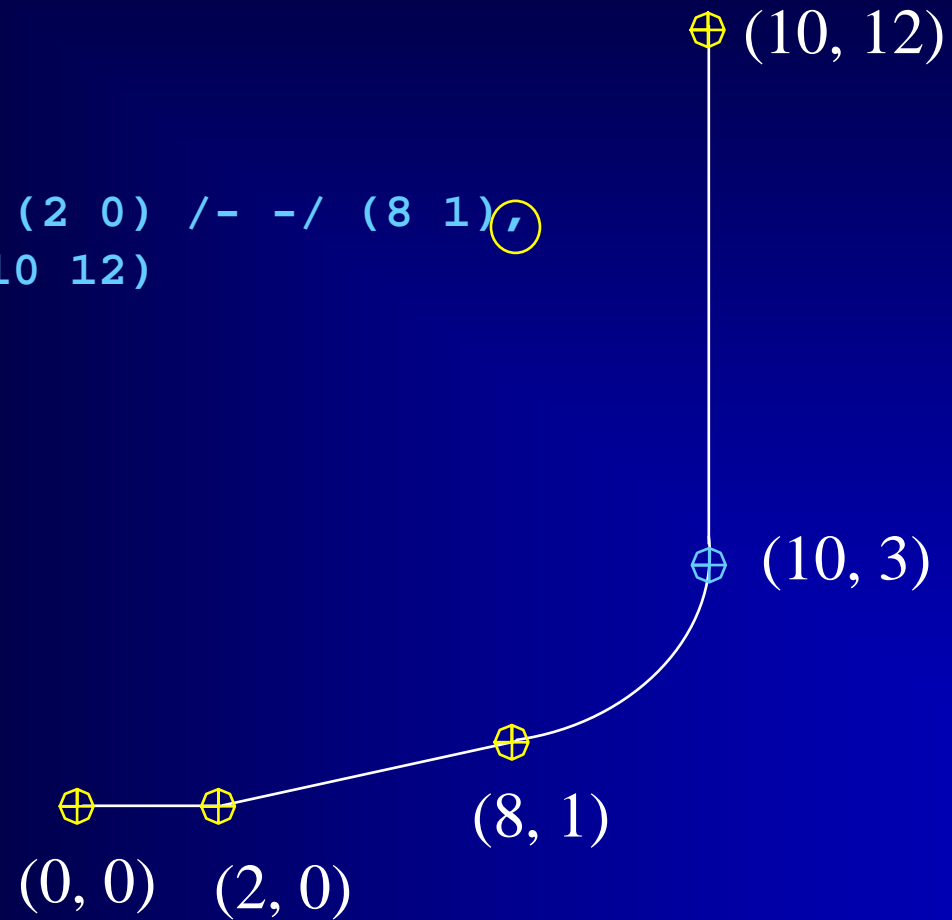


# Exercise 2: Answer

CUR FR2

X 80

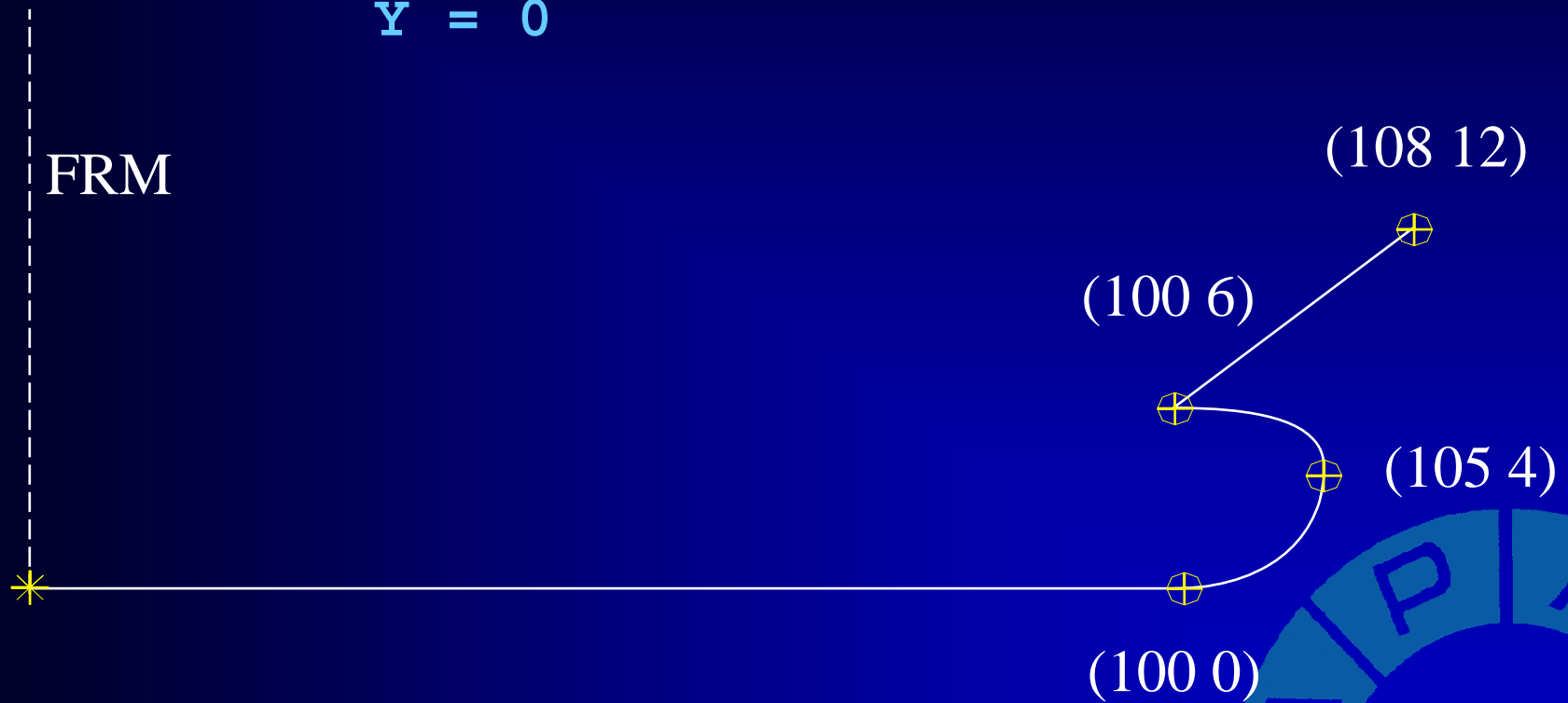
YZ (0 0) -/ (2 0) /- -/ (8 1) ,  
(10 3) /- (10 12)



# Exercise 3

Curve STEM

$$Y = 0$$



# Exercise 3: Answer

CUR STEM

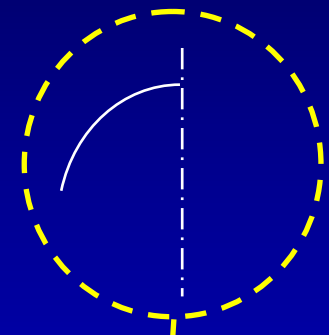
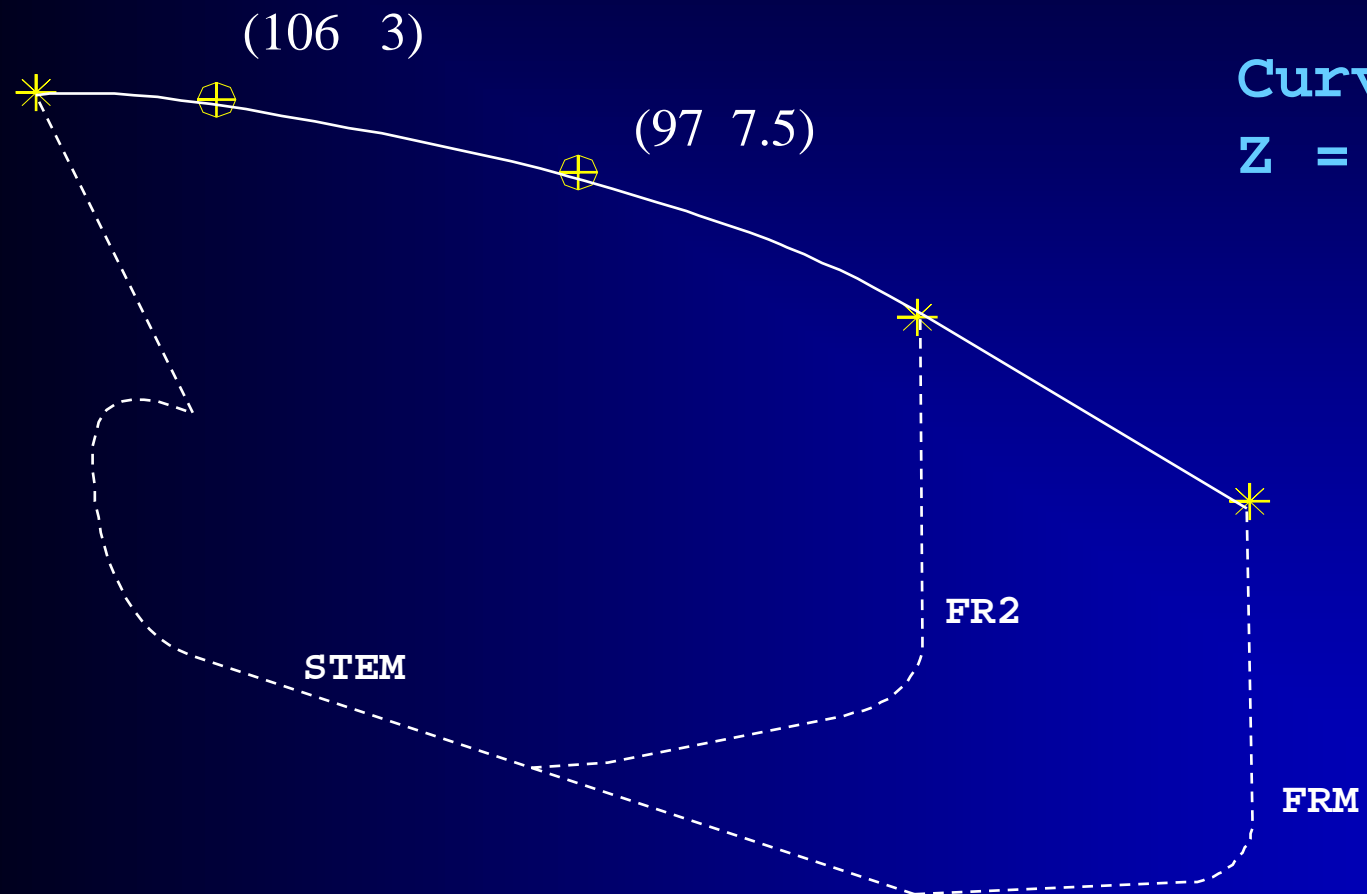
Y 0

ZX FRM -/ (100 0) 90/ (105 4),  
180/ (100 6) /- (108 12)

FRM

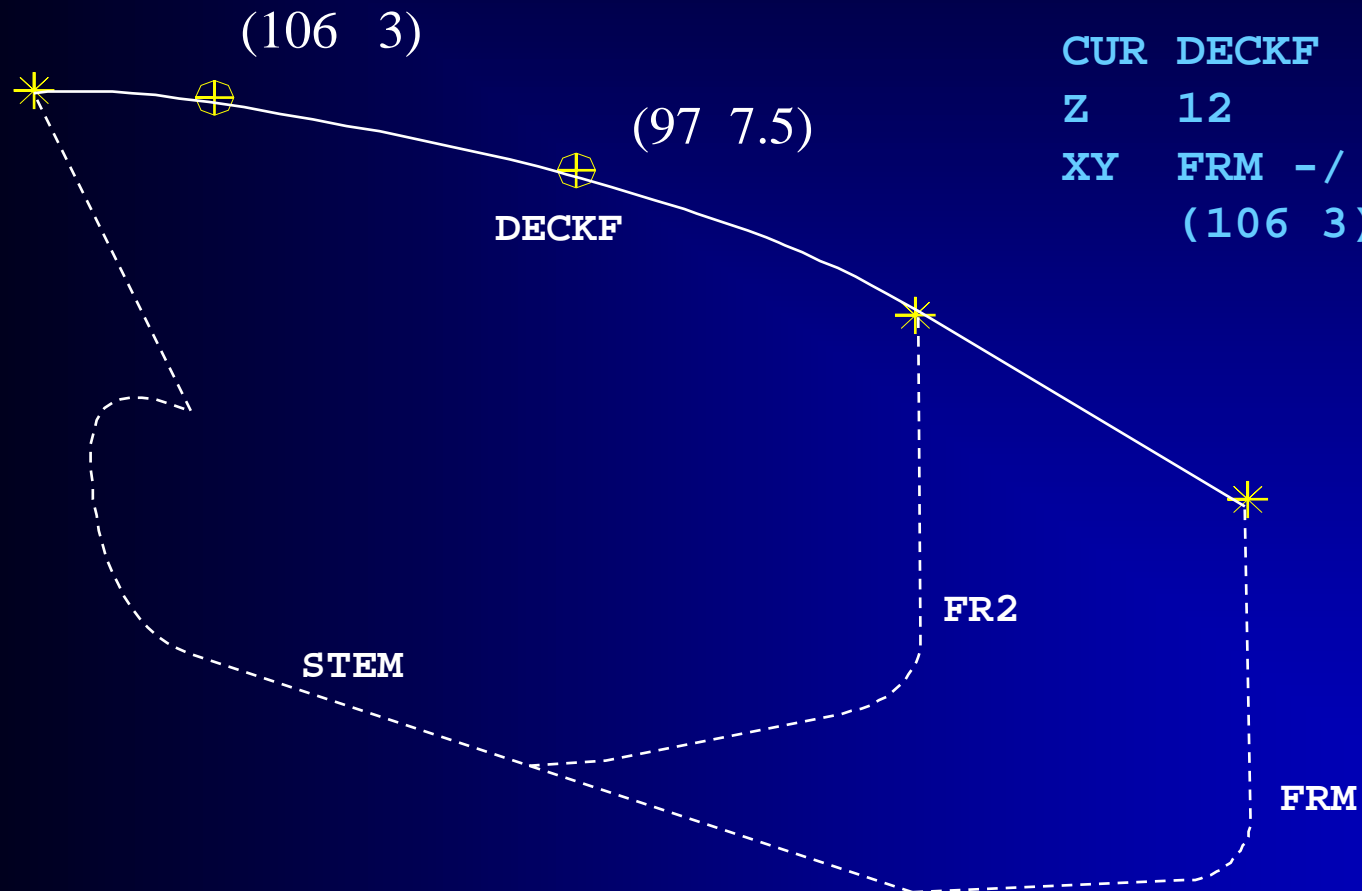


# Exercise 4



With  
rounded  
nose

# Exercise 4: Answer



```
CUR DECKF
Z 12
XY FRM -/ FR2 (97 7.5),
(106 3), -90/ STEM
```



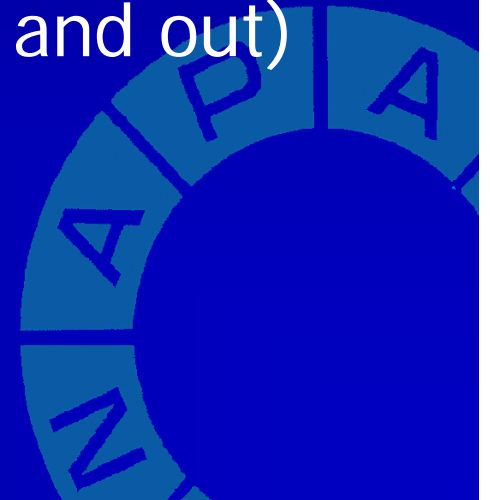
# Side Conditions

❖ Example side conditions:

**SC P**      limit curve for a flat area (Plane)

**SC M**      main frame (all other curves  
must be "inside")

**SC -//-**      knuckle (free angle in and out)



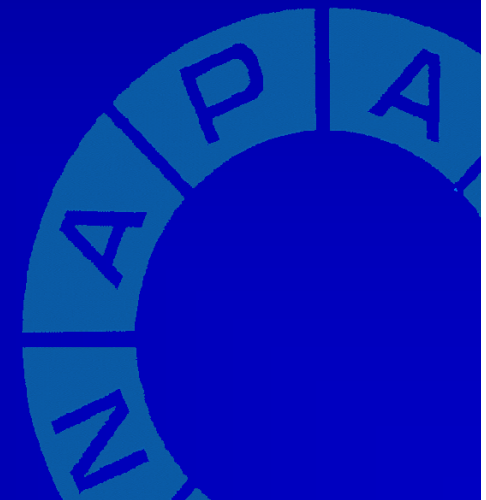
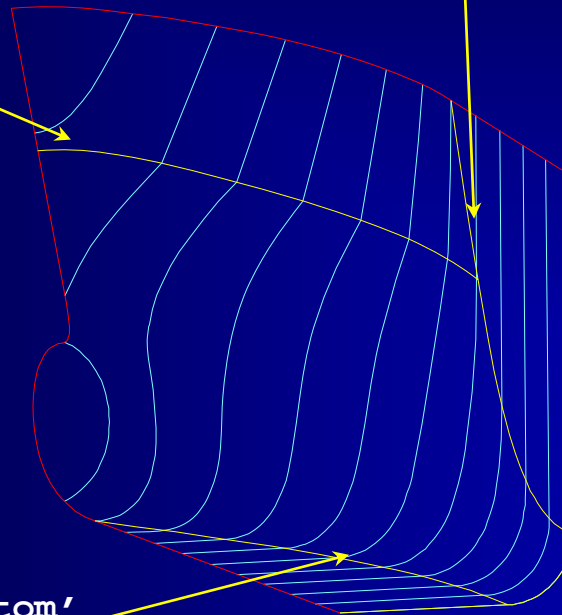
# Side Condition: Examples

```
CUR KNF 'Knuckle Curve Fwd'  
XZ (68 7.1) (85 8.5)  
XY FSF -30/ (81 3.1) -90/ STEM  
SC -//-
```

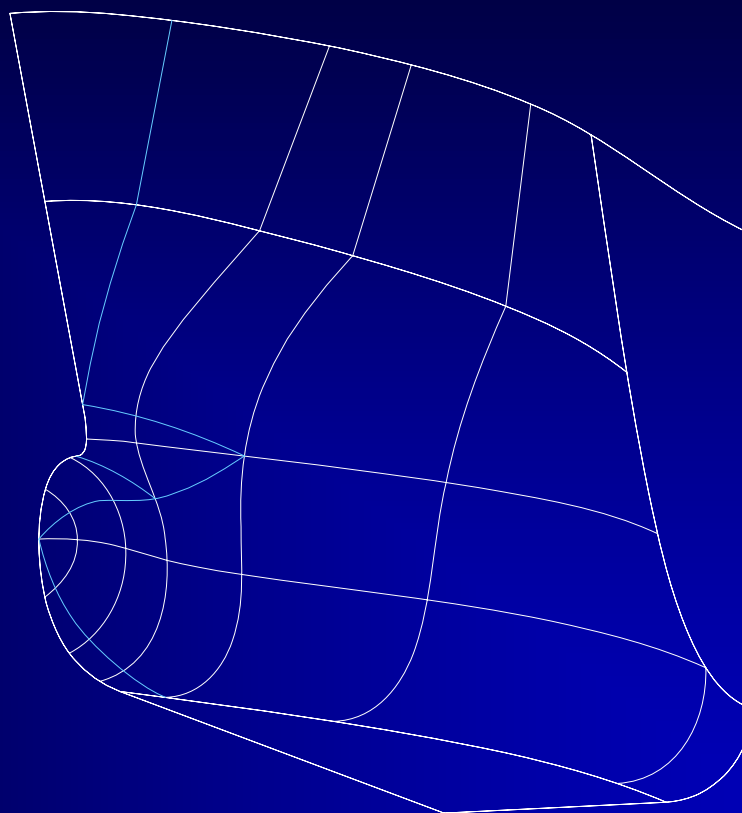
```
CUR FSF 'Flat of Side'  
Y 6.5  
XZ (62 2.2) /0 (65 2.2) 65/ (72 11.5)  
SC P
```

```
CUR FBF 'Flat of Bottom'  
Z 0  
XY FRF/PFRF1 /0 PFBF (80 0)  
SC P
```

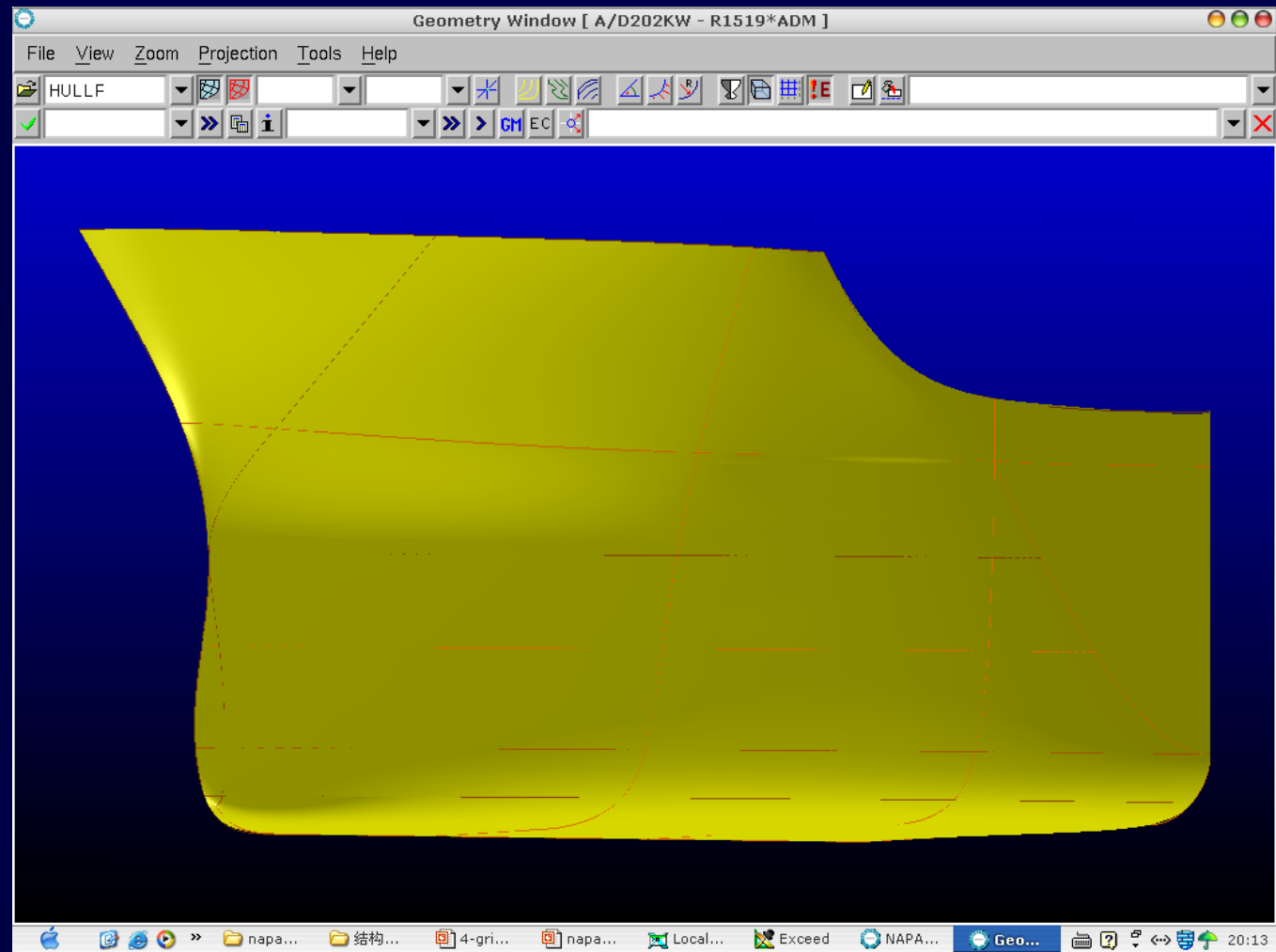
```
CUR FRF 'Main Frame Fwd'  
X 62  
YZ (0 0) -/ PFRF1 PFRF2,  
/- (6.5 11.5)  
SC M
```



# Hull Grid

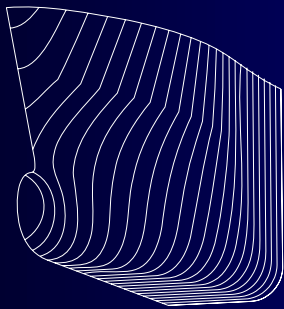


# Hull surface

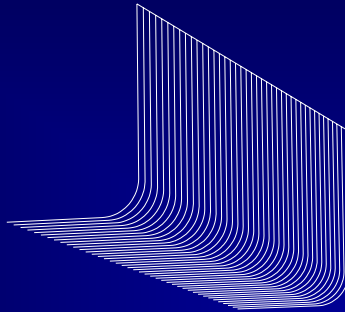


# Combined Surfaces

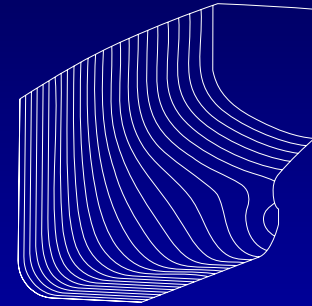
hullf



hullm



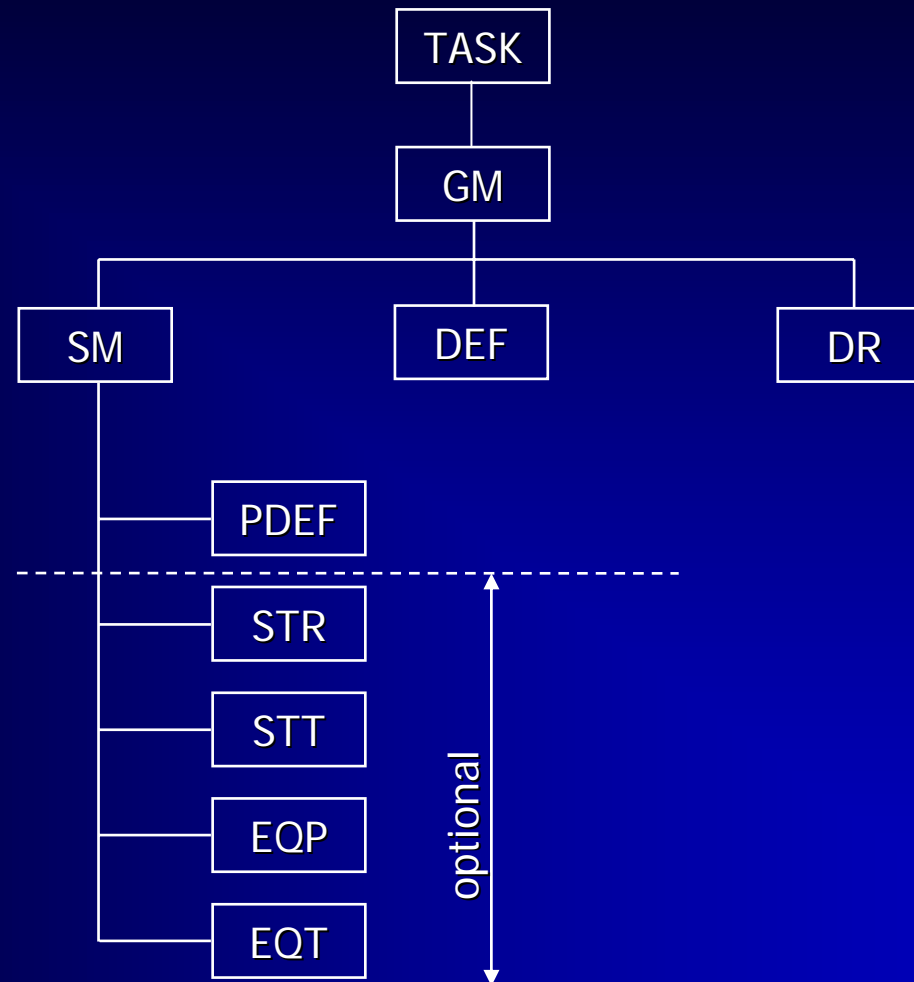
hulla



SUR hull

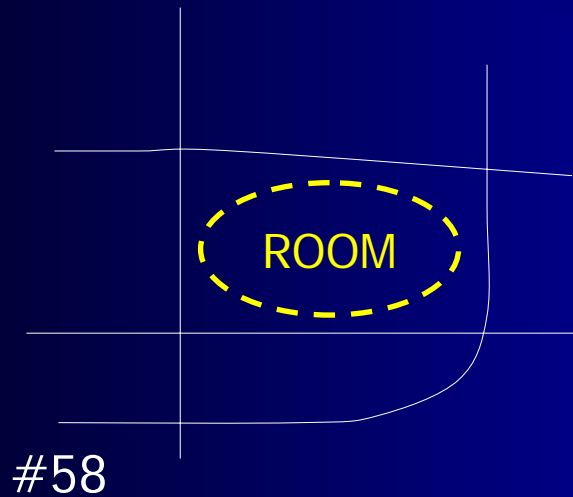


# Compartment Arrangement

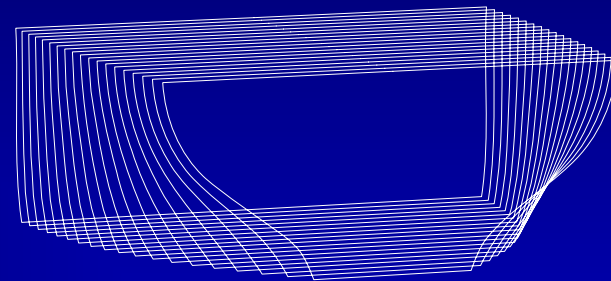


# Room def

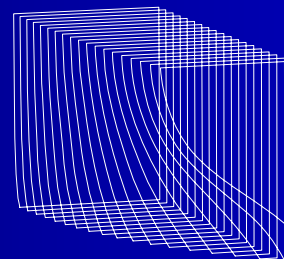
LIM X>0 X<10 Y>0 Y<HULL Z>0 Z<DECK



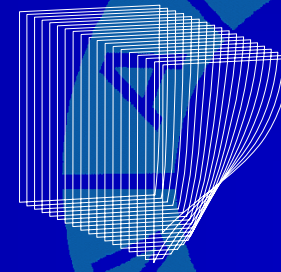
R1



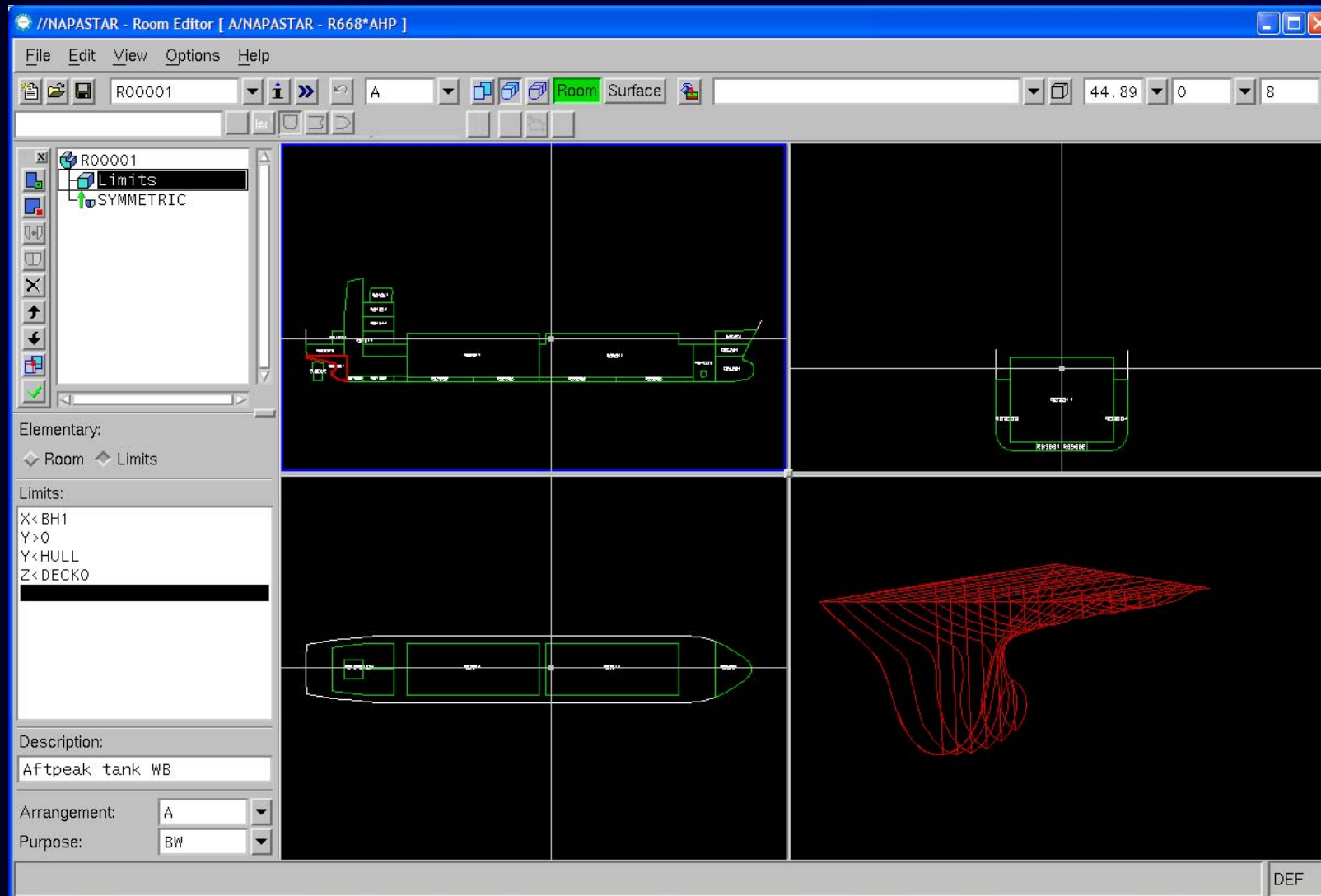
R2



R3



# Room def



# The Ship Model Window

ARR\*A - Ship Model [ A/NAPASTAR - R668\*AHP ]

File View Draw Tools Help

ARR\*A

Parts

	NAME	PURP	DES	CCODE	PDES
1	R01031	ACC	DH1		Accommodation
2	R01051	ACC	DH3		Accommodation
3	R01041	ACC	DH2		Accommodation
4	R05001	BW	Forepeak tank WB		Ballast water
5	R03004	BW	Sidetank 4 SB WB		Ballast water
6	R03003	BW	Sidetank 4 PS WB		Ballast water
7	R02008	BW	Sidetank 6 SB WB		Ballast water
8	R04002	BW	Deeptank SB WB		Ballast water
9	R04001	BW	Deeptank BB WB		Ballast water
10	R02004	BW	Sidetank 6 SB WB		Ballast water
11	R02003	BW	Sidetank 6 PS WB		Ballast water
12	R03007	BW	Sidetank 3 PS WB		Ballast water
13	R00001	BW	Aftpeak tank WB		Ballast water
14	R02007	BW	Sidetank 5 PS WB		Ballast water
15	R03008	BW	Sidetank 3 SB WB		Ballast water
16	R03011	CA	HOLD1		Cargo
17	R02011	CA	HOLD2		Cargo
18	R02001	DO	DBtank 6 PS DO		Diesel oil
19	R02002	DO	DBtank 6 SB DO		Diesel oil
20	R00023	MAP	Apparat space		Apparat space
21	R00021	FW	Fresh Water		Fresh water
22	R00022	GE			General space

Window

SET1 A

Purposes Std. Purposes Str. Types Std. Str. Types Eqp. Types Fills Pens Output

PAR\*PRO

	PURP	PDES	CLASS	TYPE	RHO [t/m3]	RED [%]	CAP	PERM
1	ACC	Accommodation	A	A	0.000	0.0	0.00	0.0
2	BW	Ballast water	X	L	1.025	2.0	1.00	0.0
3	CA	Cargo	C	L	1.000	0.0	1.00	0.0
4	DO	Diesel oil	B	L	0.860	2.0	0.95	0.0
5	MAP	Apparat space	E	E	1.000	0.0	1.00	0.0
6	FW	Fresh water	B	L	1.000	2.0	0.95	0.0
7	GE	General space	G	G	1.000	0.0	1.00	0.0
8	GST	Store	S	G	1.000	0.0	1.00	0.0
9	CWH	Wheelhouse	N	A	1.000	0.0	1.00	0.0
10	HFO	Heavy Fuel oil	B	L	0.940	2.0	0.95	0.0
11	LO	Lubricating oil	B	L	0.900	2.0	0.95	0.0
12	VOID	Void	X	V	1.025	0.0	0.95	0.0
13	MIS	Miscellaneous	B	L	1.000	2.0	1.00	0.0
14	MMA	Machinery sp.	E	E	1.000	0.0	1.00	0.0
15								

SM7>  
SM7>  
SM7>  
SM7>  
SM7>

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