

Manual SACS - Analysis Inplace

Langkah-langkah yang harus dilakukan adalah :

Kumpulkan 3 file dalam 1 folder, dimana isi file tersebut antara lain :

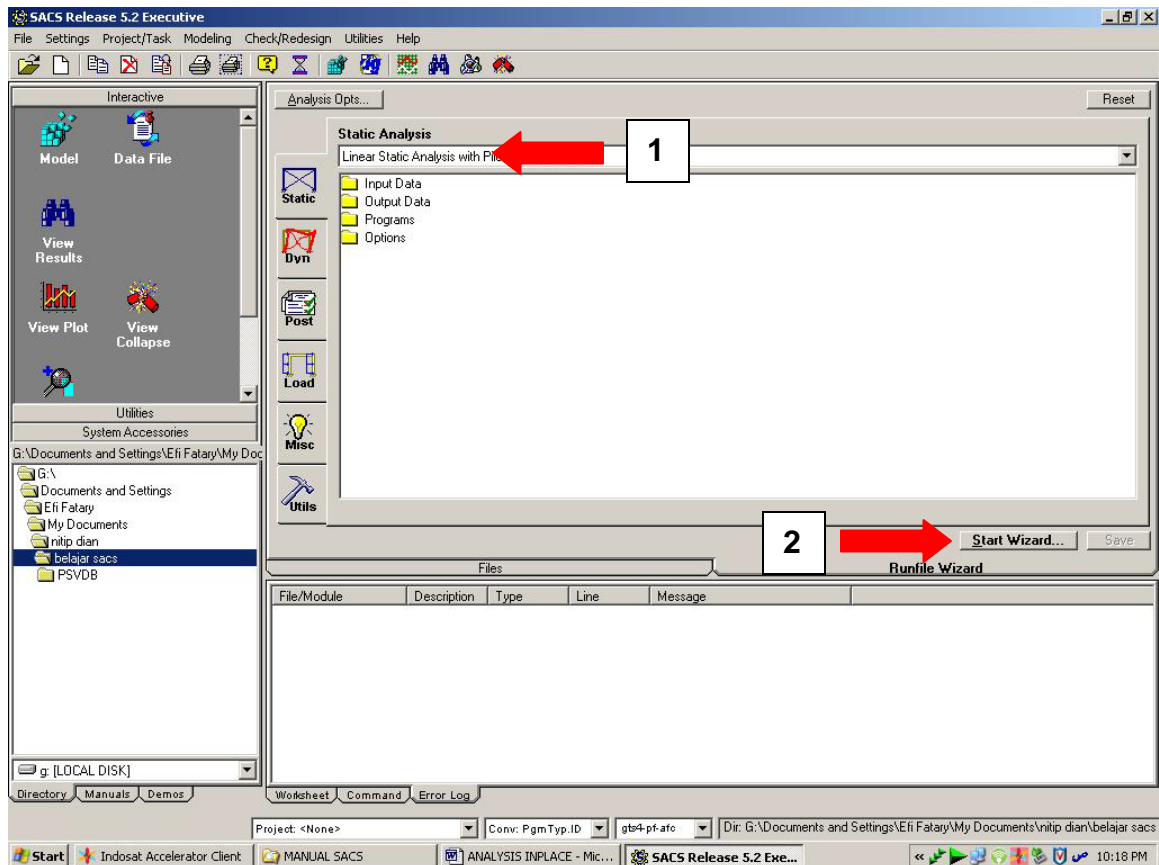
- a. SACINP
- b. PSIINP
- c. JCNINP

SACINP Memuat data modelling struktur, properties, beban, seastate.

PSIINP Merupakan file yang berisi data tanah, dimana didalamnya memuat nilai antara T-Z, P-Y, dan atau Q-Z.

JCNINP Merupakan file yang berisi tentang penjelasan sambungan (joint can).

Buka program SACS



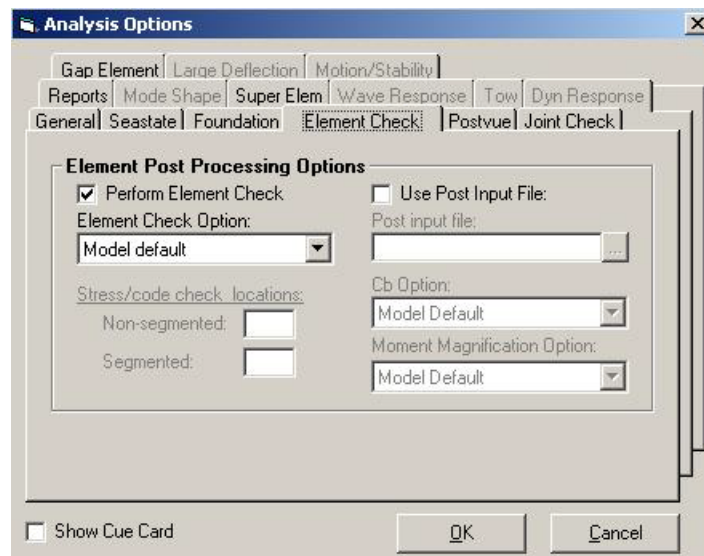
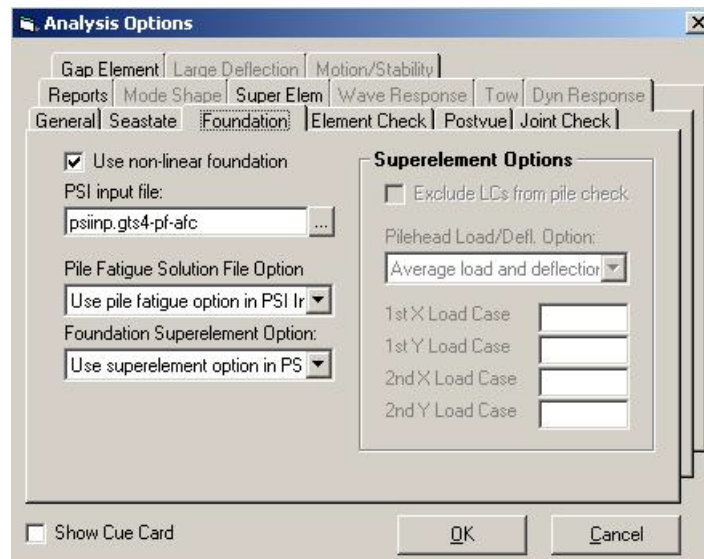
Kemudian lihat anak panah sesuai urutan nomornya, penjelasannya sebagai berikut :

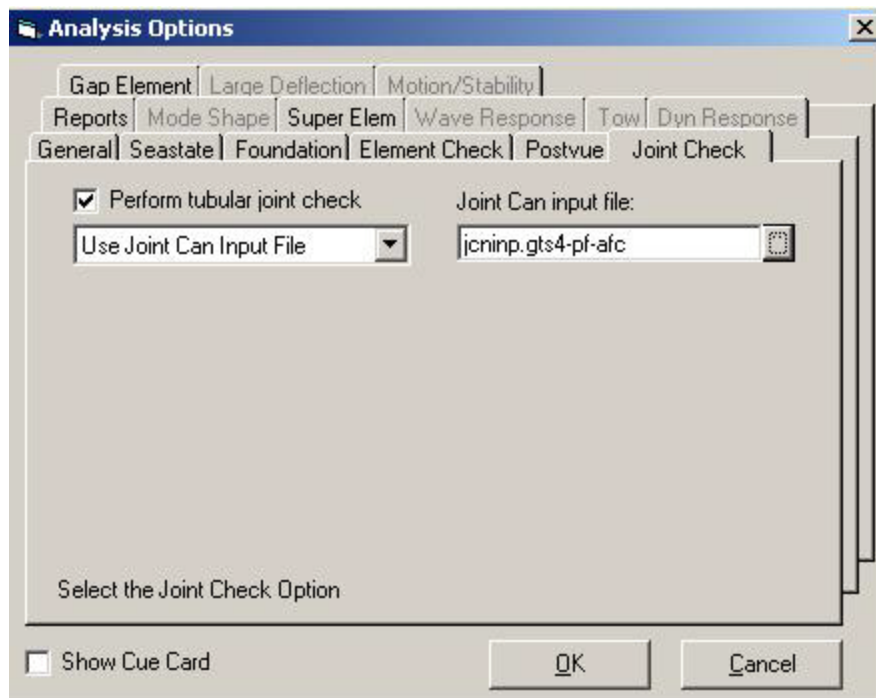
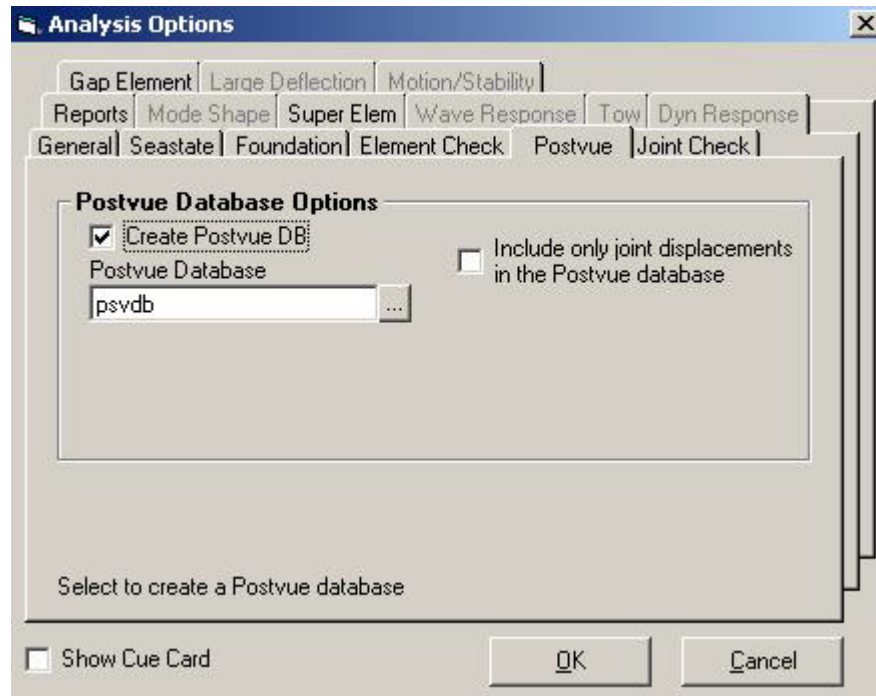
1. Gunakan linear static analysis untuk melakukan perhitungan inplace.
2. Buka **Start Wizard**, dan pilih nama file sacinp yang akan di analisis.

Setelah itu akan tampil **Analysis Options**. Check list sesuai kebutuhan perhitungan kita. Dalam option analysis ini ada beberapa option yang masuk dalam proses perhitungan antara lain :

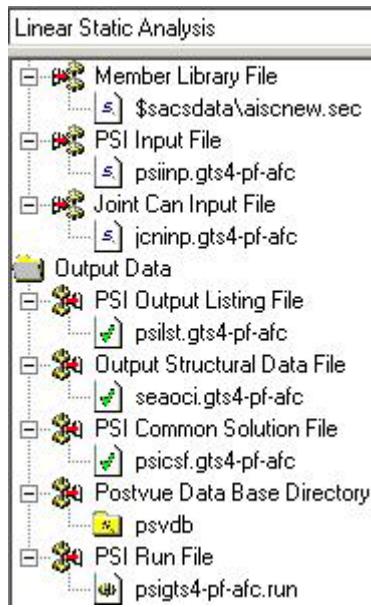
- a. general
- b. seastate
- c. foundation
- d. element check
- e. postvue
- f. joint check
- g. dll.

Adapun yang kita butuhkan dalam laporan inplace nanti harus didefinisikan, antara lain;





Isi joint input file dengan file **JCNINP** yang telah dipersiapkan.



Setelah proses check list selesai, akan tampil gambar seperti diatas.

Selanjutnya masuk dalam proses running, jalankan atau klik **Run**, tunggu sampai proses analysis selesai dilakukan oleh program SACS. Apabila berhasil maka akan ada 2 output;

- a. psilst: merupakan text output hasil proses perhitungan, dan
- b. pvdb: merupakan gambar yang dapat memperlihatkan gaya-gaya sesuai model dan pembebanannya.

Kemudian buka file psilst, dari file tersebut kita akan mengambil nilai-nilai hasil analysis terhadap struktur platform. Adapun yang dibutuhkan dalam laporan analisis inplace adalah sebagai berikut:

1. weight summary
2. horizontal deflection
3. vertical deflection
4. api/aisc member stress ratios
5. api/aisc joint punching shear stress ratios
6. api/aisc joint minimum required strength ratios
7. piles axial capacity and unity check

1. Weight Summary

Untuk weight summary kata kunci untuk search engine dalam editor adalah **BASIC LOAD**, untuk nilai berat mati struktur yang digunakan dari kolom **DEAD LOAD**, dikarenakan ada buoyancy.

Lihat pada angka yang diberi warna biru

***** SEASTATE **BASIC LOAD** CASE SUMMARY *****
 RELATIVE TO MUDLINE ELEVATION

LOAD CASE	LOAD LABEL	FX (KN)	FY (KN)	FZ (KN)	MX (KN-M)	MY (KN-M)	MZ (KN-M)	DEAD LOAD (KN)	BUOYANCY (KN)
1	1			-1134.68				1158.479	23.804
2	2			-361.003				0	0
3	3			-1597.15				0	0
4	4			-565.309				0	0
5	5			-84.898				0	0
6	6			-169.768				0	0
7	7			-510.281				0	0
8	8			-533.477				0	0
9	9			-87.662				0	0
10	10			-24.171				0	0
11	11			-52				0	0

***** SEASTATE **BASIC LOAD** CASE SUMMARY *****
 RELATIVE TO MUDLINE ELEVATION

LOAD CASE (KN)	LOAD LABEL (KN)	FX (KN)	FY (KN-M)	FZ (KN-M)	MX (KN-M)	MY (KN)	MZ (KN)	DEAD LOAD	BUOYANCY
1	1	0.000	0.000	-1134.675	-884.309	1114.337	0.000	1158.479	23.804
2	2	0.000	0.000	-361.003	-627.462	692.198	0.000	0.000	0.000
3	3	0.000	0.000	-1597.151	-3013.557	1088.084	0.000	0.000	0.000
4	4	0.000	0.000	-565.309	354.864	1460.772	0.000	0.000	0.000
5	5	-26.327	32.603	-84.898	-390.906	-139.437	16.607	0.000	0.000
6	6	0.000	0.000	-169.768	106.096	438.275	0.000	0.000	0.000
7	7	0.000	0.000	-510.281	-541.627	1833.848	0.000	0.000	0.000
8	8	12.101	-124.302	-533.477	1806.249	1353.094	803.387	0.000	0.000
9	9	0.000	0.000	-87.662	-504.215	157.672	0.000	0.000	0.000
10	10	0.000	0.000	-24.171	-2.065	33.088	0.000	0.000	0.000
11	11	3.571	1.129	-52.000	-125.846	-262.336	-11.757	0.000	0.000
12	101	5.891	0.000	0.000	0.000	15.213	0.000	0.000	0.000
13	102	4.166	4.166	0.000	-10.757	10.757	0.000	0.000	0.000
14	103	0.000	5.891	0.000	-15.213	0.000	0.000	0.000	0.000
15	104	-4.166	4.166	0.000	-10.757	-10.757	0.000	0.000	0.000
16	105	-5.891	0.000	0.000	0.000	-15.213	0.000	0.000	0.000
17	106	-4.166	-4.166	0.000	10.757	-10.757	0.000	0.000	0.000
18	107	0.000	-5.891	0.000	15.213	0.000	0.000	0.000	0.000
19	108	4.166	-4.166	0.000	10.757	10.757	0.000	0.000	0.000
20	201	79.836	-0.035	0.212	1.963	873.549	-83.118	0.000	0.000
21	202	56.428	47.786	0.145	-531.947	617.567	10.375	0.000	0.000
22	203	-0.035	67.615	-0.007	-754.248	-0.175	97.791	0.000	0.000
23	204	-56.477	47.835	-0.155	-534.723	-617.815	127.922	0.000	0.000
24	205	-79.836	0.035	-0.212	-1.963	-873.549	83.118	0.000	0.000
25	206	-56.428	-47.786	-0.145	531.947	-617.567	-10.375	0.000	0.000

***** SEASTATE **BASIC LOAD** CASE SUMMARY *****
 RELATIVE TO MUDLINE ELEVATION

LOAD CASE (KN)	LOAD LABEL (KN)	FX (KN)	FY (KN-M)	FZ (KN-M)	MX (KN-M)	MY (KN)	MZ (KN)	DEAD LOAD	BUOYANCY
26	207	0.035	-67.615	0.007	754.248	0.175	-97.791	0.000	0.000
27	208	56.477	-47.835	0.155	534.723	617.815	-127.922	0.000	0.000
28	301	99.088	-0.043	0.263	2.436	1084.203	-103.162	0.000	0.000
29	302	70.035	59.310	0.180	-660.225	766.492	12.877	0.000	0.000
30	303	-0.043	83.920	-0.008	-936.135	-0.217	121.373	0.000	0.000
31	304	-70.096	59.371	-0.192	-663.670	-766.799	158.770	0.000	0.000
32	305	-99.088	0.043	-0.263	-2.436	-1084.203	103.162	0.000	0.000
33	306	-70.035	-59.310	-0.180	660.225	-766.492	-12.877	0.000	0.000
34	307	0.043	-83.920	0.008	936.135	0.218	-121.373	0.000	0.000
35	308	70.096	-59.371	0.192	663.670	766.799	-158.770	0.000	0.000

Data yang masuk dalam laporan akan masuk seperti ini, untuk itu berat aktual dari beberapa type pembebanan akan dibagi dengan nilai contingency, karena pada saat proses input dalam program SACS beban-beban tersebut dikali faktor contingency.

Type	Loading Condition	Actual Weight	Cont's	Actual Weight with Contingencies
Structure	DEAD LOAD OF THE STRUCTURE	959.38	1.2075	-1134.68
	STRUCTURAL APPURTENANCES		1.2075	-361.003
Live Load	LIVE LOAD		1.0000	-1597.15
Piping	PIPING DRY WEIGHT		1.3800	-565.309
	PIPING OPERATING CONTENT WEIGHT		1.2000	-84.898
	PIPING HYDROTEST CONTENT WEIGHT		1.3750	-169.768
Mech	MECHANICAL DRY WEIGHT		1.3750	-510.281
	MECHANICAL OPERATING CONTENT WEIGHT		1.2500	-533.477
Elect	ELECTRICAL WEIGHT		1.2500	-87.662
Inst	INSTRUMENTATION WEIGHT		1.2500	-24.171
Crane	MONORAIL & DAVIT LIFTING WEIGHT		2.000	-1134.68

2. Horizontal Deflection

Untuk horizontal deflection, biasanya batang yang di check adalah batang horizontal. Lakukan setting untuk menunjukkan nilai pada gambar (pvdb).

Location	Case	dx Joint/loading	dy Joint/loading	dx/H	dy/H
GTS	Maximum displacement relative to Working Point (mm)				
	Operating	2.55 T03/2105	0.13 T03/2107	1/894	1/2215
	Test	2.55 T03/3105	0.05 T03/3107	1/894	1/5760
	Extreme	3.23 T03/4105	0.04 T03/4107	1/891	1/72000

3. Vertical Deflection

Description	Span (l)	Member	Deflection Relative (d)	d/l
GTS	4300	W55-W56	0.28	1/15357

4. API/AISC member stress ratios

dalam hal ini yang menjadi kata kunci dalam proses pencarian pada output program sacs adalah:

R THAN 1,

Description	Member	Properties	Load Case	UC
R	C001-C036	W12X30	2004	0.21
CB2	C001-C045	W8X15	2002	0.67
CBC	C067-C068	C8X115	2001	0.05
CC1	C001-A145	W12X30	2004	0.73
CM1	CM09-CM01	TUBULAR	3003	0.12
CM2	A223-CM09	TUBULAR	3003	0.15
CX1	C003-A152	TUBULAR	2007	0.34
CX2	C001-C017	TUBULAR	2002	0.41
DL1	219L-A002	TUBULAR	2008	0.38
DV1	PR64-DVT1	TUBULAR	2007	0.31
DV2	DVT1-DVT3	TUBULAR	2007	0.11
DVB	DVT2-DVT1	W12X30	2001	0.16
DVR	DVT2-DVT3	TUBULAR	2003	0.16
KB1	K005-K020	W8X15	2004	0.11
KBC	K020-K009	C8X115	3001	0.03
KBL	K020-K003	L303006	2002	0.24
KC1	A113-K003	W8X15	2001	0.37
MB1	MR05-MR06	W10X49	2001	0.18
MB2	MR02-MR04	W8X15	2004	0.34
MRC	A014-MR01	W10X49	2006	0.17
MRL	MR10-MR09	L303006	2008	0.04
PB1	PR31-PR10	W10X49	2007	0.53
PB2	PR61-PR59	W8X15	2002	0.72
PC1	A212-PR31	W10X49	2007	0.97
PC2	A250-PR38	W8X15	2004	0.96
PL1	119L-219L	TUBULAR	2008	0.34
PMB	MR15-MR19	W10X49	2006	0.49
PMC	A013-MR13	W10X49	2006	0.60
PML	MR13-MR15	L303006	2003	0.87
PRC	MR19-MR18	C8X115	2001	0.66
PRL	PR05-PR21	L303006	2004	0.58
PRX	A070-PR07	TUBULAR	2006	0.86
PSB	PS11-PS03		3002	0.05
PSC	AP04-PS12		3003	0.18
W01	A004-A152		2005	0.71
W02	A044-A297		2004	0.70
W03	A173-A325		2008	0.00
W04	A271-A269		3005	0.57
W05	AP06-A010		3008	0.76
WP1	A212-A016		2007	0.90
WP2	A077-A078		2003	0.43
WP3	A247-A037		2005	0.49
WP4	A017-A154		2003	0.32

*** MEMBER GROUP SUMMARY ***

API RP2A 21ST/AISC 9TH

GRUP ID	CRITICAL MEMBER	LOAD COND	MAX. UNITY CHECK	DIST FROM	* APPLIED STRESSES *			*** ALLOWABLE STRESSES ***				CRIT COND	EFFECTIVE LENGTHS		CM * VALUES *		
					END M	AXIAL N/MM	BEND-Y 2 N/MM	BEND-Z 2 N/MM2	AXIAL N/MM2	EULER N/MM	BEND-Y 2 N/MM		BEND-Z 2 N/MM2	KLY M	KLZ M	Y	Z
CB1	C001-C036	2004	0.21	0.00	0.29	-6.42	-29.71	141.00	722.68	155.10	176.25	TN+BN	0.60	0.60	0.85	0.85	
CB2	C001-C045	2002	0.67	0.00	4.19	-75.94	-25.62	141.00	523.06	155.10	176.25	TN+BN	1.00	1.00	0.85	0.85	
CBC	C067-C068	2001	0.05	0.00	-0.13	-0.27	-6.85	113.44	265.97	141.00	141.00	C<.15	1.00	1.00	0.85	0.85	
CC1	C001-A145	2004	0.73	2.50	4.64	0.70	121.10	141.00	247.48	141.00	176.25	TN+BN	2.50	2.50	0.85	0.85	
CM1	CM09-CM01	3003	0.12	0.00	-1.15	14.15	12.90	130.37	114.37	176.25	176.25	C<.15	2.20	2.20	0.85	0.85	
CM2	A223-CM09	3003	0.15	0.00	-8.21	7.24	-14.31	135.52	256.71	176.25	176.25	C<.15	1.00	1.00	0.85	0.85	
CX1	C003-A152	2007	0.34	2.90	1.39	-10.19	57.68	141.00	395.75	176.25	176.25	TN+BN	2.90	2.90	0.85	0.85	
CX2	C001-C017	2002	0.41	0.00	2.85	-67.01	-10.64	141.00	194.38	176.25	176.25	TN+BN	2.80	2.80	0.85	0.85	
DL1	219L-A002	2008	0.38	1.90	-17.09	66.83	-37.23	204.01*	*****	258.75	258.75	C<.15	1.90	1.90	0.85	0.85	
DV1	PR64-DVT1	2007	0.31	1.00	-1.60	-53.28	0.00	128.77	896.09	176.25	176.25	C<.15	2.70	2.70	0.85	0.85	
DV2	DVT1-DVT3	2007	0.11	0.00	-0.55	-19.22	0.00	137.61	368.49	176.25	176.25	C<.15	0.90	0.90	0.85	0.85	
DVB	DVT2-DVT1	2005	0.16	2.00	-1.55	-21.34	1.83	119.31	393.21	155.10	176.25	C<.15	2.00	2.00	0.85	0.85	
DVR	DVT2-DVT3	2003	0.16	0.00	13.53	-10.43	0.00	141.00	12.46	176.25	176.25	TN+BN	2.20	2.20	0.85	0.85	
KB1	K005-K020	2004	0.11	1.40	0.31	14.16	1.56	141.00	282.79	141.00	176.25	TN+BN	1.40	1.40	0.85	0.85	
KBC	K020-K009	3001	0.03	0.00	0.00	2.35	-1.64	103.33	170.22	141.00	141.00	C<.15	1.20	1.20	0.85	0.85	
KBL	K020-K003	2002	0.24	1.80	0.44	-11.24	22.51	141.00	68.70	141.00	141.00	TN+BN	1.80	1.80	0.85	0.85	
KC1	A113-K003	2001	0.37	0.00	-2.00	12.92	45.30	111.44	240.42	141.00	176.25	C<.15	1.50	1.50	0.85	0.85	
MB1	MR05-MR06	2001	0.18	1.90	0.28	23.41	1.32	141.00	314.12	141.00	176.25	TN+BN	3.70	3.70	0.85	0.85	
MB2	MR02-MR04	2004	0.34	0.00	-1.00	23.70	7.39	37.20	37.20	87.39	176.25	C<.15	3.70	3.70	0.85	0.85	
MRC	A014-MR01	2006	0.17	0.00	-1.21	10.63	-15.22	123.26	508.63	155.10	176.25	C<.15	2.90	2.90	0.85	0.85	
MRL	MR10-MR09	2008	0.04	0.00	-1.24	-1.46	2.64	90.27	112.38	141.00	141.00	C<.15	1.40	1.40	0.85	0.85	
PB1	PR31-PR10	2007	0.53	2.50	-2.10	63.37	18.47	126.73	706.77	155.10	176.25	C<.15	2.50	2.50	0.85	0.85	
PB2	PR61-PR59	2002	0.72	1.70	-3.29	-83.60	16.47	104.93	180.99	141.00	176.25	C<.15	1.70	1.70	0.85	0.85	
PC1	A212-PR31	2007	0.97	0.00	-7.10	-19.78	-138.14	124.04	543.84	155.10	176.25	C<.15	2.80	2.80	0.85	0.85	
PC2	A250-PR38	2004	0.96	2.80	-9.57	-71.73	-32.21	64.26	64.40	114.99	176.25	C<.15	2.80	2.80	0.85	0.85	

*** MEMBER GROUP SUMMARY ***

API RP2A 21ST/AISC 9TH

GRUP ID	CRITICAL MEMBER	LOAD COND	MAX. UNITY CHECK	DIST FROM	* APPLIED STRESSES *			*** ALLOWABLE STRESSES ***				CRIT COND	EFFECTIVE LENGTHS		CM * VALUES *		
					END M	AXIAL N/MM	BEND-Y 2 N/MM	BEND-Z 2 N/MM2	AXIAL N/MM2	EULER N/MM	BEND-Y 2 N/MM		BEND-Z 2 N/MM2	KLY M	KLZ M	Y	Z
PL1	119L-219L	2008	0.34	8.80	-17.27	56.03	-30.82	186.75	1092.87	258.75	258.75	C<.15	8.80	8.80	0.85	0.85	
PMB	MR15-MR19	2006	0.49	0.80	10.09	64.11	1.44	141.00	864.86	155.10	176.25	TN+BN	2.30	2.30	0.85	0.85	
PMC	A013-MR13	2006	0.60	0.00	-4.64	-15.61	-77.04	90.50	113.08	141.00	176.25	C<.15	6.20	6.20	0.85	0.85	
PML	MR13-MR15	2003	0.87	0.00	36.27	-45.50	40.74	141.00	75.02	141.00	141.00	TN+BN	1.80	1.80	0.85	0.85	
PRC	MR19-MR18	2001	0.66	0.00	2.67	79.94	-12.80	141.00	170.22	141.00	141.00	BEND	1.20	1.20	0.85	0.85	
PRL	PR05-PR21	2004	0.58	2.20	-16.47	-3.76	18.45	46.89	46.89	128.13	91.48	C>.15A	2.20	2.20	0.85	0.85	
PRX	A070-PR07	2006	0.86	0.00	-79.59	22.75	-14.11	115.81	302.98	176.25	176.25	C>.15A	4.30	4.30	0.85	0.85	
PSB	PS11-PS03	3002	0.05	0.00	0.57	6.53	0.18	141.00	2717.32	155.10	176.25	TN+BN	1.30	1.30	0.85	0.85	
PSC	AP03-PS11	3003	0.18	0.00	-10.30	18.54	0.00	129.21	948.36	176.25	176.25	C<.15	2.40	2.40	0.85	0.85	
W01	A004-A152	2005	0.71	0.00	-11.66	-76.73	23.06	135.34	3093.55	155.10	176.25	C<.15	4.00	0.20	0.85	0.85	
W02	A044-A297	2004	0.70	0.00	-19.92	-82.13	4.46	135.42	3165.46	155.10	176.25	C<.15	1.40	1.40	0.85	0.85	
W03	A173-A325	2006	0.00	0.00	0.00	-0.48	0.08	136.42	4417.34	155.10	176.25	SHEAR	1.00	1.00	0.85	0.85	
W04	A271-A269	3005	0.57	0.00	-3.24	-10.64	77.72	107.15	198.08	141.00	176.25	C<.15	1.60	1.60	0.85	0.85	
W05	AP06-A010	3008	0.76	0.70	0.02	-106.87	-0.34	141.00	*****	141.00	141.00	TN+BN	0.70	0.70	0.85	0.85	
WP1	A212-A016	2007	0.90	2.50	46.35	134.07	13.02	213.00	1604.62	213.00	266.25	TN+BN	15.00	2.50	0.85	0.85	
WP2	A077-A078	2003	0.43	0.70	29.29	59.89	-11.06	213.00	8334.12	234.30	266.25	TN+BN	0.70	0.70	0.85	0.85	
WP3	A247-A037	2005	0.49	1.20	17.22	57.48	42.75	213.00	4198.47	234.30	266.25	TN+BN	1.20	1.20	0.85	0.85	
WP4	A017-A154	2003	0.32	0.00	-1.38	-38.73	38.06	186.36	*****	234.30	266.25	C<.15	0.70	0.70	0.85	0.85	

5. API/AISC joint punching shear stress ratios

Joint Name	Chord Joint	Chord Properties	Brace Joint	Brace Properties	Punching Shear UC	Load Comb
C001	A160	6.625"OD X 0.5"WT	C017	4.50"OD X 0.325"WT	0.297	0.297
C003	A152	6.625"OD X 0.5"WT	C023	4.50"OD X 0.325"WT	0.031	0.031
C003	A152	6.625"OD X 0.5"WT	C021	4.50"OD X 0.325"WT	0.225	0.225
C013	C019	4.50"OD X 0.325"WT	C017	4.50"OD X 0.325"WT	0.099	0.099
C014	C054	4.50"OD X 0.325"WT	C053	4.50"OD X 0.325"WT	0.074	0.074
C014	C054	4.50"OD X 0.325"WT	C055	4.50"OD X 0.325"WT	0.086	0.086
C015	C021	4.50"OD X 0.325"WT	C019	4.50"OD X 0.325"WT	0.161	0.161
C017	C001	4.50"OD X 0.325"WT	C012	4.50"OD X 0.325"WT	0.04	0.04
C017	C001	4.50"OD X 0.325"WT	C013	4.50"OD X 0.325"WT	0.035	0.035
C019	C013	4.50"OD X 0.325"WT	C014	4.50"OD X 0.325"WT	0.018	0.018
C019	C013	4.50"OD X 0.325"WT	C015	4.50"OD X 0.325"WT	0.062	0.062
C021	C015	4.50"OD X 0.325"WT	C016	4.50"OD X 0.325"WT	0.042	0.042
C021	C015	4.50"OD X 0.325"WT	C003	4.50"OD X 0.325"WT	0.105	0.105
C046	C055	4.50"OD X 0.325"WT	C056	4.50"OD X 0.325"WT	0.025	0.025
C046	C055	4.50"OD X 0.325"WT	C057	4.50"OD X 0.325"WT	0.027	0.027
C051	C049	4.50"OD X 0.325"WT	C052	4.50"OD X 0.325"WT	0.034	0.034
C051	C049	4.50"OD X 0.325"WT	C053	4.50"OD X 0.325"WT	0.053	0.053
C052	C058	4.50"OD X 0.325"WT	C064	4.50"OD X 0.325"WT	0.082	0.082
C052	C058	4.50"OD X 0.325"WT	C059	4.50"OD X 0.325"WT	0.051	0.051
C053	C014	4.50"OD X 0.325"WT	C051	4.50"OD X 0.325"WT	0.04	0.04
C054	C060	4.50"OD X 0.325"WT	C059	4.50"OD X 0.325"WT	0.054	0.054
C054	C060	4.50"OD X 0.325"WT	C061	4.50"OD X 0.325"WT	0.071	0.071
C055	C046	4.50"OD X 0.325"WT	C014	4.50"OD X 0.325"WT	0.04	0.04
C056	C062	4.50"OD X 0.325"WT	C061	4.50"OD X 0.325"WT	0.035	0.035
C056	C062	4.50"OD X 0.325"WT	C063	4.50"OD X 0.325"WT	0.081	0.081
C059	C054	4.50"OD X 0.325"WT	C052	4.50"OD X 0.325"WT	0.063	0.063
C061	C056	4.50"OD X 0.325"WT	C054	4.50"OD X 0.325"WT	0.047	0.047
CM01	CM04	8.625"OD X 0.5"WT	CM03	6.625"OD X 0.5"WT	0.014	0.014
CM01	CM04	8.625"OD X 0.5"WT	CM02	6.625"OD X 0.5"WT	0.03	0.03
CM01	CM09	8.625"OD X 0.5"WT	CM02	6.625"OD X 0.5"WT	0.03	0.03
CM02	CM03	8.625"OD X 0.5"WT	CM01	6.625"OD X 0.5"WT	0.045	0.045
CM02	CM08	8.625"OD X 0.5"WT	CM01	6.625"OD X 0.5"WT	0.045	0.045
CM03	CM02	8.625"OD X 0.5"WT	CM01	6.625"OD X 0.5"WT	0.006	0.006
CM03	CM02	8.625"OD X 0.5"WT	CM04	6.625"OD X 0.5"WT	0.006	0.006
CM03	CM07	8.625"OD X 0.5"WT	CM04	6.625"OD X 0.5"WT	0.006	0.006
CM04	CM01	8.625"OD X 0.5"WT	CM03	6.625"OD X 0.5"WT	0.005	0.005
CM04	CM06	8.625"OD X 0.5"WT	CM03	6.625"OD X 0.5"WT	0.005	0.005
CM04	CM06	8.625"OD X 0.5"WT	CM07	6.625"OD X 0.5"WT	0.003	0.003
CM06	CM04	8.625"OD X 0.5"WT	CM07	6.625"OD X 0.5"WT	0.005	0.005
CM07	CM03	8.625"OD X 0.5"WT	CM04	6.625"OD X 0.5"WT	0.005	0.005
CM07	CM03	8.625"OD X 0.5"WT	CM06	6.625"OD X 0.5"WT	0.001	0.001
CM08	A179	8.625"OD X 0.5"WT	A178	6.625"OD X 0.5"WT	0.083	0.083
CM08	A179	8.625"OD X 0.5"WT	A180	6.625"OD X 0.5"WT	0.072	0.072
CM09	A182	8.625"OD X 0.5"WT	A181	6.625"OD X 0.5"WT	0.057	0.057
CM09	A182	8.625"OD X 0.5"WT	A223	6.625"OD X 0.5"WT	0.085	0.085

6. API/AISC joint minimum required strength ratios

Joint Name	Chord Joint	Chord Properties	Brace Joint	Brace Properties	Minimum Required Strength UC	Load Comb
W01B	W01A	24" OD X 0.875" WT	S101	6.625"OD X 0.5"WT	0.626	5105
W01B	W01C	24" OD X 0.875" WT	S101	6.625"OD X 0.5"WT	0.626	5105
W01B	W01A	24" OD X 0.875" WT	S101	6.625"OD X 0.5"WT	0.626	5105
W01C	W01B	24" OD X 0.875" WT	S201	6.625"OD X 0.5"WT	0.626	5105
W01C	W01D	24" OD X 0.875" WT	S201	6.625"OD X 0.5"WT	0.626	5105
W01C	W01B	24" OD X 0.875" WT	S201	6.625"OD X 0.5"WT	0.626	5105
W02B	W02A	24" OD X 0.875" WT	S103	6.625"OD X 0.5"WT	0.626	5105
W02B	W02C	24" OD X 0.875" WT	S103	6.625"OD X 0.5"WT	0.626	5105
W02B	W02A	24" OD X 0.875" WT	S103	6.625"OD X 0.5"WT	0.626	5105
W02C	W02B	24" OD X 0.875" WT	S203	6.625"OD X 0.5"WT	0.626	5105
W02C	W02D	24" OD X 0.875" WT	S203	6.625"OD X 0.5"WT	0.626	5105
W02C	W02B	24" OD X 0.875" WT	S203	6.625"OD X 0.5"WT	0.626	5105

7. Piles Axial Capacity and Unity Check

DESCRIPTION	1-year condition (normal operating & test)
	GTS 199L
Maximum axial load (compression) (kN)	-1956.3
Capacity (compression) (kN)	-4630.8
Safety factor	2.37
Critical load case	2002
Unity Check	N/A

Yang paling penting dalam postvue DB adalah menggunakan **SELECT**, dimana berguna untuk mencari UC berdasarkan group, yaitu antara:

- A. 0 – 0.8
- B. 0.8 – 1
- C. 1 - ~

Kita dapat melihat perbedaan member yang kritis dari warna yang ditampilkan.

Oleh : **Dian Sunandar**
Anggota Milis Migas Indonesia