LAMPIRAN A

Tabel Besarnya Kelonggaran Bedasarkan Faktor – faktor yang berpengaruh

LAMPIRAN B
Faktor Kelonggaran

B.1 Panel PU Block

B.1.1 Tabel Kelonggaran Operator Mixer

Faktor	Kelas	Kelonggaran
Tenaga yang dikeluarkan	Luar biasa berat	50
Sikap Kerja	Berdiri di atas dua kaki	2
Gerakan Kerja	Agak terbatas	3
Kelelahan mata	Pandangan terus menerus dengan fokus berubah	14
Keadaaan temperatur kerja	Normal	3
keadaan atmosfer	Baik	0
Keadaan lingkungan yang baik	Kebisingan Rendah	0
Kelonggaran Pribadi	Kelonggaran Pribadi Pria	1
Total		73

Gambar B.1
Persen Kelonggaran Operator Mixer

Beban 200 kg berada pada kelas Luar biasa berat yaitu > dari 50 kg , sehingga faktor kelonggaran yang dibutuhkan adalah 50 %

LAMPIRAN C

Input dan Output Simulasi

D.1 Simulasi Tata Letak Usulan Produk Ukuran Besar

D.1.1 Input

```
**********************************************************
*                                                        *
*                  Formatted Listing of Model:           *
* D:\BECCA'S\SEMESTER 7\MY TA\TA IN PROGRESS\PROMOD
SIMUL\SIMULASI LAYOUT BARU\600 baru reparasi.MOD *
*                                                        *
**********************************************************
 Time Units:                Minutes
 Distance Units:            Feet
**********************************************************
Locations                          *
**********************************************************
 Name                Cap Units Stats      Rules          Cost
 ------------------------ --- ----- ----------- --------------- ------------
 Mixer               2   1     Time Series Oldest, ,
 PU_Block_1            1   1     Time Series Oldest, , First
 PU_Block_2            1   1     Time Series Oldest, ,
 M_Slicing           inf 1     Time Series Oldest, ,
 WIP_In_Protect_       80  1     Time Series Oldest, ,
 M_Protective          1   1     Time Series Oldest, ,
 M_Tekuk_3             1   1     Time Series Oldest, ,
 WIP_Out_Tekuk_3       350 1     Time Series Oldest, ,
 Meja_Kerja_4_1        1   2     Time Series Oldest, , First
 Meja_Kerja_4_1.1      1   1     Time Series Oldest, ,
 Meja_Kerja_4_1.2      1   1     Time Series Oldest, ,
 WIP_Out_Akhir_1       120 1     Time Series Oldest, ,
 M_Foil_1              1   1     Time Series Oldest, ,
 M_Foil_2              1   1     Time Series Oldest, ,
 M_Sletting_1.1        1   1     Time Series Oldest, ,
 M_Sletting_1.2        1   1     Time Series Oldest, ,
 WIP_In_Alur_3         inf 1     Time Series Oldest, ,
 WIP_Out_Sletting_1.1_A1 inf 1     Time Series Oldest, ,
 WIP_Out_Sletting_1.2_B2 inf 1     Time Series Oldest, ,
 WIP_Out_Sletting_1.2_C1 inf 1     Time Series Oldest, ,
 WIP_Out_Sletting_1.2_C2 inf 1     Time Series Oldest, ,
```

WIP_Out_Sletting_1.2_D1 inf 1 Time Series Oldest, ,
WIP_Out_Sletting_1.2_D2 inf 1 Time Series Oldest, ,
M_Bending_1 1 1 Time Series Oldest, ,
M_Alur_3 1 1 Time Series Oldest, ,
M_Alur_1.1 1 1 Time Series Oldest, ,
M_Alur_1.2 1 1 Time Series Oldest, ,
M_Alur_1.3 1 1 Time Series Oldest, ,
M_Alur_1.4 1 1 Time Series Oldest, ,
Meja_Kerja_6 inf 1 Time Series Oldest, ,
Meja_Kerja_1 inf 1 Time Series Oldest, ,
M_Tekuk_1 1 1 Time Series Oldest, ,
M_Tekuk_2 1 1 Time Series Oldest, ,
WIP_Out_M_Tekuk_1 inf 1 Time Series Oldest, ,
Titik_Setting_Tekuk_1 2 1 Time Series Oldest, ,
WIP_Out_M_Tekuk_2_.1 inf 1 Time Series Oldest, ,
WIP_Out_M_Tekuk_2_.2 1 1 Time Series Oldest, ,
Roll_Konveyor_1A 2 1 Time Series Oldest, ,
Roll_Konveyor_2A 2 1 Time Series Oldest, ,
Roll_Konveyor_1B 1 1 Time Series Oldest, ,
Roll_Konveyor_2B 1 1 Time Series Oldest, ,
Roll_Konveyor_3 1 1 Time Series Oldest, ,
M_Press_1 3 1 Time Series Oldest, ,
Roll_Konveyor_4A 1 1 Time Series Oldest, ,
Roll_Konveyor_5A 1 1 Time Series Oldest, ,
Roll_Konveyor_5B 1 1 Time Series Oldest, ,
Roll_Konveyor_4B 1 1 Time Series Oldest, ,
Roll_Konveyor_6 1 1 Time Series Oldest, ,
Roll_Konveyor_7 1 1 Time Series Oldest, ,
Titik_Setting_Press_2 2 1 Time Series Oldest, ,
WIP_In_M_Press_2 3 1 Time Series Oldest, ,
M_Press_2 3 1 Time Series Oldest, ,
Titik_Setting_Press_S 2 1 Time Series Oldest, ,
WIP_In_M_Press_S 3 1 Time Series Oldest, ,
M_Press_S 3 1 Time Series Oldest, ,
Titik_Setting_Press_3 2 1 Time Series Oldest, ,
WIP_In_M_Press_3 3 1 Time Series Oldest, ,
M_Press_3 3 1 Time Series Oldest, ,

```
Titik_Setting_Press_4   2   1     Time Series Oldest, ,
WIP_In_M_Press_4        3   1     Time Series Oldest, ,
M_Press_4               3   1     Time Series Oldest, ,
wip_jadi_2              30  1     Time Series Oldest, ,
Meja_Kerja_4_2          1   2     Time Series Oldest, , First
Meja_Kerja_4_2.1        1   1     Time Series Oldest, ,
Meja_Kerja_4_2.2        1   1     Time Series Oldest, ,
WIP_Out_Akhir_2         120 1     Time Series Oldest, ,
Foil_3                  1   1     Time Series Oldest, ,
M_Sletting_2            1   1     Time Series Oldest, ,
M_Roll                  1   1     Time Series Oldest, ,
M_Spiral                1   1     Time Series Oldest, ,
M_Cutting               1   1     Time Series Oldest, ,
WIP_Out_Spiral_Kosong   inf 1     Time Series Oldest, ,
Gudang_Tembaga          inf 1     Time Series Oldest, ,
Hanger_Pipa_Spiral      7   1     Time Series Oldest, ,
WIP_Out_Akhir_Spiral    inf 1     Time Series Oldest, ,
Gudang_Cairan           inf 1     Time Series Oldest, ,
Gudang_Plat_Gulungan    inf 1     Time Series Oldest, ,
Colling_Room            inf 1     Time Series Oldest, ,
M_Injection_1           1   1     Time Series Oldest, ,
M_Injection_2           1   1     Time Series Oldest, ,
M_Injection_3           1   1     Time Series Oldest, ,
M_Injection_4           1   1     Time Series Oldest, ,
Titik_setting_Spiral    1   1     Time Series Oldest, ,
WIP_JADI_               120 1     Time Series Oldest, ,

*********************************************************
*                       Entities                        *
*********************************************************
Name                Speed (fpm)  Stats      Cost
------------------- ------------ ---------- ------------
Plat_Gulungan       150          Time Series
Drum_Cairan         150          Time Series
PU_Block_Besar      150          Time Series
PU_Block_Potongan   150          Time Series
Panel_Sandwich_PU   150          Time Series
```

Panel_Sandwich_PU_AF 150 Time Series
Plat_Lembaran 150 Time Series
Plat_Kosong 150 Time Series
Panel_Sandwich 150 Time Series
Panel_Sandwich_AF 150 Time Series
Plat_Spiral 150 Time Series
Pipa_Spiral_Kosong 150 Time Series
Pipa_Tembaga 150 Time Series
Pipa_Panel_Spiral 150 Time Series

****

Path Networks *

****

Name	Type	T/S	From	To	BI	Dist/Time	Speed Factor
Jalur_PU_Block	Passing	Time	N1	N2	Bi		
			N2	N3	Bi		
			N2	N4	Bi		
			N3	N5	Bi		
			N4	N5	Bi		
			N6	N7	Bi		
			N7	N8	Bi		
			N8	N9	Bi		
			N9	N10	Bi		
			N10	N11	Bi		
Jalur_Pengiriman_Plat_Lembaran	Passing	Time	N1	N2	Bi		
			N1	N4	Bi		
			N1	N5	Bi		
			N3	N6	Bi		
			N1	N7	Bi		
			N1	N8	Bi		
			N9	N10	Bi		
jALUR_Transport_Brng_0.5_Jd	Passing	Time	N1	N2	Bi		
			N3	N2	Bi		
			N4	N2	Bi		
			N5	N2	Bi		
			N6	N2	Bi		

```
                                    N1      N7      Bi
                                    N3      N7      Bi
                                    N4      N7      Bi
                                    N5      N7      Bi
                                    N6      N7      Bi
 Transport_produk_jadi      Passing  Time       N1      N2      Bi   0.20
                                    N3      N2      Bi   0.17
                                    N2      N4      Bi   0.36
*********************************************************
*                    Interfaces                         *
*********************************************************
 Net                    Node      Location
 ------------------------------ ---------- ---------------------
 Jalur_PU_Block             N1       Gudang_Cairan
                    N2       Mixer
                    N3       PU_Block_1
                    N4       PU_Block_2
                    N5       M_Slicing
                    N6       WIP_In_Protect_
                    N7       M_Protective
                    N8       M_Tekuk_3
                    N9       WIP_Out_Tekuk_3
                    N10      Meja_Kerja_4_1
                    N11      WIP_Out_Akhir_1
 Jalur_Pengiriman_Plat_Lembaran N1       WIP_Out_M_Tekuk_2_.1
                    N2       Titik_Setting_Press_2
                    N4       Titik_Setting_Press_3
                    N5       Titik_Setting_Press_4
                    N3       M_Bending_1
                    N6       Titik_Setting_Press_S
                    N7       Roll_Konveyor_1A
                    N8       WIP_Out_M_Tekuk_2_.2
                    N9       Meja_Kerja_1
                    N10      M_Tekuk_2
 jALUR_Transport_Brng_0.5_Jd  N1       Roll_Konveyor_7
                    N2       WIP_JADI_
                    N3       M_Press_2
```

N4 M_Press_S
N5 M_Press_3
N6 M_Press_4
N7 wip_jadi_2
Transport_produk_jadi N1 WIP_JADI_
N2 Meja_Kerja_4_2
N3 WIP_Out_Akhir_2
N4 wip_jadi_2

****
* Resources *
****

Name	Units	Res Stats	Ent Search	Search Path	Motion	Cost
OP_Mixer	1	By Unit	Closest	Oldest	Jalur_PU_Block	Empty: 150 fpm
		Home: N1			Full: 150 fpm	
		(Return)				
OP_Protective	1	By Unit	Closest	Oldest	Jalur_PU_Block	Empty: 150 fpm
		Home: N6			Full: 150 fpm	
		(Return)				
OP_Tekuk3	1	By Unit	Closest	Oldest	Jalur_PU_Block	Empty: 150 fpm
		Home: N8			Full: 150 fpm	
		(Return)				
OP_Meja_kejra_4_1	2	By Unit	Closest	Oldest	Jalur_PU_Block	Empty: 150 fpm
		Home: N10			Full: 150 fpm	
		(Return)				
OP_Bending	1	By Unit	Closest	Oldest	Jalur_Pengiriman_Plat_Lembaran	Empty: 150 fpm
		Home: N3			Full: 150 fpm	
		(Return)				
OP_Tekuk_2	1	By Unit	Closest	Oldest	Jalur_Pengiriman_Plat_Lembaran	Empty: 150 fpm

Home: N1 Full: 150 fpm
(Return)
OP_MJ_1 1 By Unit Least Used Oldest
Jalur_Pengiriman_Plat_Lembaran Empty: 150 fpm
Home: N9 Full: 150 fpm
(Return)
OP_Kon_7 1 By Unit Closest Oldest
jALUR_Transport_Brng_0.5_Jd Empty: 150 fpm
Home: N1 Full: 150 fpm
(Return)
OP_P_2 1 By Unit Closest Oldest jALUR_Transport_Brng_0.5_Jd
Empty: 150 fpm
Home: N3 Full: 150 fpm
(Return)
OP_P_S 1 By Unit Closest Oldest jALUR_Transport_Brng_0.5_Jd
Empty: 150 fpm
Home: N4 Full: 150 fpm
(Return)
OP_P_3 1 By Unit Closest Oldest jALUR_Transport_Brng_0.5_Jd
Empty: 150 fpm
Home: N5 Full: 150 fpm
(Return)
OP_P_4 1 By Unit Least Used Oldest
jALUR_Transport_Brng_0.5_Jd Empty: 150 fpm
Home: N6 Full: 150 fpm
(Return)
Operator 2 By Unit Closest Oldest Transport_produk_jadi
Empty: 150 fpm
Home: N1 Full: 150 fpm

****
* Processing *
****

Process Routing
Entity Location Operation Blk Output
Destination Rule Move Logic
---------- ---------- ---------- ---- ---------- ------

Drum_Cairan Gudang_Cairan 1 Drum_Cairan
Mixer FIRST 1 MOVE WITH OP_Mixer FOR 23 SEC THEN
FREE
Drum_Cairan Mixer GET OP_Mixer
WAIT 900 SEC
FREE OP_Mixer
1 Drum_Cairan PU_Block_1
TURN 1 MOVE WITH OP_Mixer FOR 25 SEC THEN FREE
Drum_Cairan PU_Block_2
TURN MOVE WITH OP_Mixer FOR 31 SEC THEN FREE
Drum_Cairan PU_Block_1 WAIT 3600 SEC 1
PU_Block_Besar M_Slicing FIRST 1 MOVE FOR 10 SEC
Drum_Cairan PU_Block_2 WAIT 3600 SEC 1
PU_Block_Besar M_Slicing FIRST 1 MOVE FOR 8 SEC
PU_Block_Besar M_Slicing SPLIT 5 AS PU_Block_Potongan
WAIT 120 SEC
PU_Block_Potongan M_Slicing 1
PU_Block_Potongan WIP_In_Protect_ FIRST 1 MOVE FOR 14 SEC
PU_Block_Potongan WIP_In_Protect_ 1
PU_Block_Potongan M_Protective FIRST 1 MOVE WITH
OP_Protective FOR 20 SEC THEN FREE
PU_Block_Potongan M_Protective GET OP_Protective
WAIT 313 SEC
FREE OP_Protective
1 Panel_Sandwich_PU
M_Tekuk_3 FIRST 1 MOVE WITH OP_Tekuk3 FOR 24 SEC THEN
FREE
Panel_Sandwich_PU M_Tekuk_3 GET OP_Tekuk3
WAIT 60 SEC
FREE OP_Tekuk3
1 Panel_Sandwich_PU
WIP_Out_Tekuk_3 FIRST 1 MOVE WITH OP_Tekuk3 FOR 29 SEC
THEN FREE
Panel_Sandwich_PU WIP_Out_Tekuk_3 1
Panel_Sandwich_PU Meja_Kerja_4_1 FIRST 1 MOVE WITH
OP_Meja_kejra_4_1 FOR 64 SEC THEN FREE

Panel_Sandwich_PU Meja_Kerja_4_1 GET OP_Meja_kejra_4_1
WAIT 1090 SEC
FREE OP_Meja_kejra_4_1
1 Panel_Sandwich_PU_AF
WIP_Out_Akhir_1 FIRST 1 MOVE WITH OP_Meja_kejra_4_1 FOR 59
SEC THEN FREE
Panel_Sandwich_PU_AF WIP_Out_Akhir_1 1
Panel_Sandwich_PU_AF EXIT FIRST 1
Plat_Lembaran M_Foil_1 WAIT 10 SEC
1 Plat_Lembaran
M_Sletting_1.1 FIRST 1
Plat_Lembaran M_Foil_2 WAIT 10 SEC 1 Plat_Lembaran
M_Sletting_1.2 FIRST 1
Plat_Lembaran M_Sletting_1.1 WAIT 632 SEC 1
Plat_Lembaran WIP_In_Alur_3 TURN 1 MOVE FOR 18 SEC
Plat_Lembaran
WIP_Out_Sletting_1.1_A1 TURN MOVE FOR 12 SEC
Plat_Lembaran M_Sletting_1.2 WAIT 632 SEC 1
Plat_Lembaran WIP_Out_Sletting_1.2_B2 TURN 1 MOVE FOR 18 SEC
Plat_Lembaran
WIP_Out_Sletting_1.2_C1 TURN MOVE FOR 9 SEC

Plat_Lembaran WIP_In_Alur_3 1 Plat_Lembaran
M_Alur_3 FIRST 1 MOVE FOR 11 SEC
Plat_Lembaran M_Alur_3 WAIT 253 SEC 1
Plat_Lembaran Meja_Kerja_6 FIRST 1 MOVE FOR 18 SEC
Plat_Lembaran Meja_Kerja_6 WAIT 60 SEC 1
Plat_Lembaran M_Tekuk_1 FIRST 1 MOVE FOR 12 SEC
Plat_Lembaran M_Tekuk_1 WAIT 253 SEC 1
Plat_Lembaran WIP_Out_M_Tekuk_1 FIRST 1 MOVE FOR 14 SEC
Plat_Lembaran WIP_Out_M_Tekuk_1 1 Plat_Lembaran
Titik_Setting_Tekuk_1 FIRST 1
Plat_Lembaran Titik_Setting_Tekuk_1 COMBINE 2
WAIT 300 SEC 1 Plat_Kosong
Roll_Konveyor_1B FIRST 1 MOVE FOR 15 SEC

Plat_Lembaran WIP_Out_Sletting_1.1_A1 1 Plat_Lembaran M_Alur_1.1 FIRST 1 MOVE FOR 12 SEC
Plat_Lembaran WIP_Out_Sletting_1.2_B2 1 Plat_Lembaran M_Alur_1.2 FIRST 1 MOVE FOR 12 SEC
Plat_Lembaran WIP_Out_Sletting_1.2_C1 1 Plat_Lembaran WIP_Out_Sletting_1.2_C2 TURN 1 MOVE FOR 17 SEC
Plat_Lembaran WIP_Out_Sletting_1.2_D1 TURN MOVE FOR 9 SEC
Plat_Lembaran WIP_Out_Sletting_1.2_C2 1 Plat_Lembaran M_Alur_1.3 FIRST 1 MOVE FOR 12 SEC
Plat_Lembaran WIP_Out_Sletting_1.2_D1 1 Plat_Lembaran WIP_Out_Sletting_1.2_D2 TURN 1 MOVE FOR 17 SEC
Plat_Lembaran M_Bending_1 TURN MOVE FOR 9 SEC
Plat_Lembaran WIP_Out_Sletting_1.2_D2 1 Plat_Lembaran M_Alur_1.4 FIRST 1 MOVE FOR 12 SEC
Plat_Lembaran M_Bending_1 WAIT 253 SEC 1 Plat_Lembaran Titik_Setting_Press_S FIRST 1 MOVE WITH OP_Bending FOR 101 SEC THEN FREE
Plat_Lembaran M_Alur_1.1 WAIT 253 SEC 1 Plat_Lembaran Meja_Kerja_1 FIRST 1
Plat_Lembaran M_Alur_1.2 WAIT 253 SEC 1 Plat_Lembaran Meja_Kerja_1 FIRST 1
Plat_Lembaran M_Alur_1.3 WAIT 253 SEC 1 Plat_Lembaran Meja_Kerja_1 FIRST 1
Plat_Lembaran M_Alur_1.4 WAIT 253 SEC 1 Plat_Lembaran Meja_Kerja_1 FIRST 1
Plat_Lembaran Meja_Kerja_1 GET OP_MJ_1
WAIT 60 SEC
FREE OP_MJ_1
1 Plat_Lembaran M_Tekuk_2 FIRST 1 MOVE WITH OP_MJ_1 FOR 10 SEC THEN FREE
Plat_Lembaran M_Tekuk_2 WAIT 253 SEC 1 Plat_Lembaran WIP_Out_M_Tekuk_2_.1 FIRST 1

Plat_Lembaran WIP_Out_M_Tekuk_2_.1 1
Plat_Lembaran WIP_Out_M_Tekuk_2_.2 FULL 1 MOVE WITH OP_Tekuk_2 FOR 17 SEC THEN FREE
Plat_Lembaran
Titik_Setting_Press_2 FULL MOVE WITH OP_Tekuk_2 FOR 53 SEC THEN FREE
Plat_Lembaran
Titik_Setting_Press_3 FULL MOVE WITH OP_Tekuk_2 FOR 40 SEC THEN FREE
Plat_Lembaran
Titik_Setting_Press_4 FULL MOVE WITH OP_Tekuk_2 FOR 67 SEC THEN FREE
Plat_Lembaran
Roll_Konveyor_1A FULL MOVE WITH OP_Tekuk_2 FOR 5 SEC THEN FREE
Plat_Lembaran WIP_Out_M_Tekuk_2_.2 1
Plat_Lembaran Roll_Konveyor_2A FIRST 1 MOVE FOR 5 SEC
Plat_Lembaran Roll_Konveyor_1A COMBINE 2
WAIT 300 SEC
1 Plat_Kosong
Roll_Konveyor_1B FIRST 1 MOVE FOR 9 SEC

Plat_Kosong Roll_Konveyor_1B 1 Plat_Kosong
Roll_Konveyor_2B FIRST 1 MOVE FOR `21 SEC
Plat_Lembaran Roll_Konveyor_2A COMBINE 2
WAIT 300 SEC
1 Plat_Kosong
Roll_Konveyor_2B FIRST 1 MOVE FOR 9 SEC
Plat_Kosong Roll_Konveyor_2B 1 Plat_Kosong
Roll_Konveyor_3 FIRST 1 MOVE FOR 9 SEC
Plat_Kosong Roll_Konveyor_3 1 Plat_Kosong
M_Press_1 FIRST 1 MOVE FOR 22 SEC
Plat_Kosong M_Press_1 ACCUM 3
WAIT 4092 SEC 1 Panel_Sandwich
Roll_Konveyor_4A FIRST 1 MOVE FOR 21 SEC
Panel_Sandwich Roll_Konveyor_4A 1 Panel_Sandwich
Roll_Konveyor_5A FIRST 1 MOVE FOR 9 SEC

Panel_Sandwich Roll_Konveyor_5A 1 Panel_Sandwich
Roll_Konveyor_5B FIRST 1 MOVE FOR 9 SEC
Panel_Sandwich Roll_Konveyor_5B 1 Panel_Sandwich
Roll_Konveyor_4B FIRST 1 MOVE FOR 9 SEC
Panel_Sandwich Roll_Konveyor_4B 1 Panel_Sandwich
Roll_Konveyor_6 FIRST 1 MOVE FOR 9 SEC
Panel_Sandwich Roll_Konveyor_6 1 Panel_Sandwich
Roll_Konveyor_7 FIRST 1 MOVE FOR 9 SEC
Panel_Sandwich Roll_Konveyor_7 1 Panel_Sandwich
WIP_JADI_ FULL 1 MOVE WITH OP_Kon_7 FOR 81 SEC THEN
FREE
Panel_Sandwich wip_jadi_2
ALT MOVE WITH OP_P_2 FOR 39 SEC THEN FREE
Plat_Lembaran Titik_Setting_Press_2 COMBINE 2
WAIT 300 SEC
1 Plat_Kosong
WIP_In_M_Press_2 FIRST 1
Plat_Lembaran Titik_Setting_Press_S COMBINE 2
WAIT 300 SEC
1 Plat_Kosong
WIP_In_M_Press_S FIRST 1
Plat_Lembaran Titik_Setting_Press_3 COMBINE 2
WAIT 300 SEC 1 Plat_Kosong
WIP_In_M_Press_3 FIRST 1
Plat_Lembaran Titik_Setting_Press_4 COMBINE 2
WAIT 300 SEC
1 Plat_Kosong
WIP_In_M_Press_4 FIRST 1
Plat_Kosong WIP_In_M_Press_2 1 Plat_Kosong
M_Press_2 FIRST 1 MOVE FOR 13 SEC
Plat_Kosong WIP_In_M_Press_S 1 Plat_Kosong
M_Press_S FIRST 1 MOVE FOR 13 SEC
Plat_Kosong WIP_In_M_Press_3 1 Plat_Kosong
M_Press_3 FIRST 1 MOVE FOR 32 SEC
Plat_Kosong WIP_In_M_Press_4 1 Plat_Kosong
M_Press_4 FIRST 1 MOVE FOR 17 SEC
Plat_Kosong M_Press_2 ACCUM 3

WAIT 4092 SEC

1 Panel_Sandwich WIP_JADI_ FULL 1 MOVE WITH OP_P_2 FOR 98 SEC THEN FREE

Panel_Sandwich wip_jadi_2 ALT MOVE WITH OP_P_2 FOR 84 SEC THEN FREE

Plat_Kosong M_Press_S ACCUM 3

WAIT 4092 SEC

1 Panel_Sandwich WIP_JADI_ FULL 1 MOVE WITH OP_P_S FOR 90 SEC THEN FREE

Panel_Sandwich wip_jadi_2 ALT MOVE WITH OP_P_S FOR 91 SEC THEN FREE

Plat_Kosong M_Press_3 ACCUM 3

WAIT 4092 SEC

1 Panel_Sandwich WIP_JADI_ FULL 1 MOVE WITH OP_P_3 FOR 111 SEC THEN FREE

Panel_Sandwich wip_jadi_2 ALT MOVE WITH OP_P_3 FOR 96 SEC THEN FREE

Plat_Kosong M_Press_4 ACCUM 3

WAIT 4092 SEC

1 Panel_Sandwich WIP_JADI_ FULL 1 MOVE WITH OP_P_4 FOR 133 SEC THEN FREE

Panel_Sandwich wip_jadi_2 ALT MOVE WITH OP_P_4 FOR 106 SEC THEN FREE

Panel_Sandwich WIP_JADI_ 1 Panel_Sandwich Meja_Kerja_4_2 FIRST 1 MOVE WITH Operator FOR 46 SEC THEN FREE

Panel_Sandwich wip_jadi_2 1 Panel_Sandwich Meja_Kerja_4_2 FIRST 1 MOVE WITH Operator FOR 103 SEC THEN FREE

Panel_Sandwich Meja_Kerja_4_2 GET Operator

WAIT 1090 SEC

FREE Operator

1 Panel_Sandwich_AF WIP_Out_Akhir_2 FIRST 1 MOVE WITH Operator FOR 23 SEC THEN FREE

Panel_Sandwich_AF WIP_Out_Akhir_2 1
Panel_Sandwich_AF EXIT FIRST 1
Plat_Lembaran Foil_3 1 Plat_Lembaran
M_Sletting_2 FIRST 1
Plat_Lembaran M_Sletting_2 WAIT 50 SEC
1 Plat_Lembaran M_Roll
FIRST 1
Plat_Lembaran M_Roll 1 Plat_Lembaran
M_Spiral FIRST 1
Plat_Lembaran M_Spiral WAIT 1263 SEC 1
Pipa_Spiral_Kosong M_Cutting FIRST 1
Pipa_Spiral_Kosong M_Cutting WAIT 60 SEC 1
Pipa_Spiral_Kosong WIP_Out_Spiral_Kosong FIRST 1 MOVE FOR 17
SEC
Pipa_Spiral_Kosong WIP_Out_Spiral_Kosong 1
Pipa_Spiral_Kosong Titik_setting_Spiral FIRST 1 MOVE FOR 17 SEC
Pipa_Tembaga Gudang_Tembaga 1 Pipa_Tembaga
Titik_setting_Spiral JOIN 1 MOVE FOR 5 SEC
Pipa_Spiral_Kosong Titik_setting_Spiral JOIN 1 Pipa_Tembaga
1 Pipa_Spiral_Kosong
Hanger_Pipa_Spiral FIRST 1
Pipa_Spiral_Kosong Hanger_Pipa_Spiral ACCUM 7
WAIT 4360 SEC
1 Pipa_Panel_Spiral
WIP_Out_Akhir_Spiral FIRST 1 MOVE FOR 10 SEC
Pipa_Panel_Spiral WIP_Out_Akhir_Spiral 1
Pipa_Panel_Spiral EXIT FIRST 1
Plat_Gulungan Titik_Setting_Press_2
Plat_Gulungan WIP_In_Alur_3
Plat_Gulungan M_Protective

****
* Arrivals *
****

Entity	Location	Qty each	First Time	Occurrences	Frequency	Logic

Plat_Lembaran M_Foil_1 1 0 INF 10 Sec
Plat_Lembaran M_Foil_2 1 0 INF 10 Sec
Drum_Cairan Gudang_Cairan 1 0 INF 10 Sec
Plat_Lembaran Foil_3 1 0 INF 10 SEC
Pipa_Tembaga Gudang_Tembaga 1 0 INF 10 sec

D.1.2 Output

General Report

Output from D:\BECCA'S\SEMESTER 7\MY TA\TA IN PROGRESS\PROMOD SIMUL\SIMULASI LAYOUT BARU\600 baru reparasi.MOD

Date: Mar/01/2012 Time: 01:14:33 PM

Scenario : Normal Run

Replication : 1 of 1

Simulation Time : 48 hr

LOCATIONS

Location Name	Scheduled Hours	Total Capacity	Entries	Minutes Average Per Entry	Average Contents	Maximum Contents	Current Contents	% Util
Mixer	48	2	98	58.31	1.98	2	2	99.22
PU Block 1	48	1	48	59.68	0.99	1	1	99.48
PU Block 2	48	1	48	59.37	0.98	1	1	98.96
M Slicing	48	999999	94	0.00	0	1	0	0.00
WIP In Protect	48	80	470	15.98	2.60	7	1	3.26
M Protective	48	1	469	5.21	0.84	1	1	84.87
M Tekuk 3	48	1	468	1.00	0.16	1	0	16.25
WIP Out Tekuk 3	48	350	468	475.56	77.27	160	159	22.08
Meja Kerja 4 1.1	48	1	155	18.05	0.97	1	1	97.17
Meja Kerja 4 1.2	48	1	154	18.13	0.96	1	1	96.98
Meja Kerja 4 1	96	2	309	18.09	0.97	2	2	97.08
WIP Out Akhir 1	48	120	307	0.00	0	1	0	0.00
M Foil 1	48	1	275	10.40	0.99	1	1	99.36
M Foil 2	48	1	275	10.40	0.99	1	1	99.36

M Sletting 1.1	48	1	274	10.51	0.99	1	1	99.99
M Sletting 1.2	48	1	274	10.51	0.99	1	1	99.99
WIP In Alur 3	48	999999	137	0.00	0	1	0	0.00
WIP Out Sletting 1.1	48	999999	136	0.00	0	1	0	0.00
WIP Out Sletting 1.2	48	999999	137	0.00	0	1	0	0.00
WIP Out Sletting 1.2	48	999999	136	0.00	0	1	0	0.00
WIP Out Sletting 1.2	48	999999	68	0.00	0	1	0	0.00
WIP Out Sletting 1.2	48	999999	68	0.00	0	1	0	0.00
WIP Out Sletting 1.2	48	999999	34	0.00	0	1	0	0.00
M Bending 1	48	1	34	4.21	0.04	1	0	4.98
M Alur 3	48	1	137	4.21	0.20	1	1	20.04
M Alur 1.1	48	1	136	4.21	0.19	1	0	19.91
M Alur 1.2	48	1	137	4.21	0.20	1	1	20.04
M Alur 1.3	48	1	68	4.21	0.09	1	0	9.96
M Alur 1.4	48	1	34	4.21	0.04	1	0	4.98
Meja Kerja 6	48	999999	136	1.00	0.04	1	0	0.00
Meja Kerja 1	48	999999	374	2.61	0.34	2	0	0.00
M Tekuk 1	48	1	136	4.21	0.19	1	0	19.91
M Tekuk 2	48	1	374	4.21	0.54	1	0	54.76
WIP Out M Tekuk 1	48	999999	136	2.36	0.11	3	0	0.00
Titik Setting Tekuk 1	48	2	136	22.82	1.07	2	2	53.89
WIP Out M Tekuk 2 .1	48	999999	374	0.00	0	1	0	0.00
WIP Out M Tekuk 2 .2	48	1	49	10.43	0.17	1	1	17.76
Roll Konveyor 1A	48	2	72	12.87	0.32	2	0	16.09
Roll Konveyor 2A	48	2	48	73.37	1.22	2	2	61.15
Roll Konveyor 1B	48	1	103	15.73	0.56	1	1	56.28
Roll Konveyor 2B	48	1	125	18.22	0.79	1	1	79.09
Roll Konveyor 3	48	1	124	21.75	0.93	1	1	93.67
M Press 1	48	3	123	68.72	2.93	3	3	97.83
Roll Konveyor 4A	48	1	120	0.00	0	1	0	0.00
Roll Konveyor 5A	48	1	120	0.00	0	1	0	0.00
Roll Konveyor 5B	48	1	120	0.00	0	1	0	0.00
Roll Konveyor 4B	48	1	120	0.00	0	1	0	0.00
Roll Konveyor 6	48	1	120	0.00	0	1	0	0.00
Roll Konveyor 7	48	1	120	0.00	0	1	0	0.00
Titik Setting Press 2	48	2	63	9.22	0.20	2	1	10.09
WIP In M Press 2	48	3	31	12.49	0.13	2	0	4.48

M Press 2	48	3	31	135.73	1.46	3	1	48.70
Titik Setting Press S	48	2	34	47.13	0.55	2	0	27.82
WIP In M Press S	48	3	17	0.00	0	1	0	0.00
M Press S	48	3	17	219.37	1.29	3	2	43.16
Titik Setting Press 3	48	2	92	8.77	0.28	2	0	14.02
WIP In M Press 3	48	3	46	18.33	0.29	3	0	9.76
M Press 3	48	3	46	111.80	1.78	3	1	59.53
Titik Setting Press 4	48	2	98	8.87	0.30	2	0	15.09
WIP In M Press 4	48	3	49	18.92	0.32	3	0	10.73
M Press 4	48	3	49	110.35	1.87	3	1	62.59
wip jadi 2	48	30	0	0.00	0	0	0	0.00
Meja Kerja 4 2.1	48	1	132	18.08	0.82	1	1	82.90
Meja Kerja 4 2.2	48	1	125	18.07	0.78	1	1	78.44
Meja Kerja 4 2	96	2	257	18.08	0.80	2	2	80.67
WIP Out Akhir 2	48	120	255	0.00	0	1	0	0.00
Foil 3	48	1	140	20.49	0.99	1	1	99.64
M Sletting 2	48	1	139	20.71	1	1	1	100.00
M Roll	48	1	138	20.85	0.99	1	1	99.94
M Spiral	48	1	137	21.01	0.99	1	1	99.97
M Cutting	48	1	136	1.00	0.04	1	0	4.72
WIP Out Spiral Kosong	48	999999	136	5.75	0.27	2	0	0.00
Gudang Tembaga	48	999999	17281	1428.74	8572.98	17145	17145	0.86
Hanger Pipa Spiral	48	7	136	120.64	5.69	7	3	81.39
WIP Out Akhir Spiral	48	999999	133	0.00	0	1	0	0.00
Gudang Cairan	48	999999	17281	1431.62	8590.27	17183	17183	0.86
Gudang Plat Gulungan	48	999999	0	0.00	0	0	0	0.00
Colling Room	48	999999	0	0.00	0	0	0	0.00
M Injection 1	48	1	0	0.00	0	0	0	0.00
M Injection 2	48	1	0	0.00	0	0	0	0.00
M Injection 3	48	1	0	0.00	0	0	0	0.00
M Injection 4	48	1	0	0.00	0	0	0	0.00
Titik setting Spiral	48	1	136	7.29	0.34	1	0	34.45
WIP JADI	48	120	258	21.41	1.91	8	1	1.60

LOCATION STATES BY PERCENTAGE (Multiple Capacity)

Location Name	Scheduled Hours	% Empty	% Partially Occupied	% Full	% Down
Mixer	48	0.00	1.56	98.44	0.00
M Slicing	48	100.00	0.00	0.00	0.00
WIP In Protect	48	23.46	76.54	0.00	0.00
WIP Out Tekuk 3	48	3.20	96.80	0.00	0.00
WIP Out Akhir 1	48	100.00	0.00	0.00	0.00
WIP In Alur 3	48	100.00	0.00	0.00	0.00
WIP Out Sletting 1.1	48	100.00	0.00	0.00	0.00
WIP Out Sletting 1.2	48	100.00	0.00	0.00	0.00
WIP Out Sletting 1.2	48	100.00	0.00	0.00	0.00
WIP Out Sletting 1.2	48	100.00	0.00	0.00	0.00
WIP Out Sletting 1.2	48	100.00	0.00	0.00	0.00
WIP Out Sletting 1.2	48	100.00	0.00	0.00	0.00
Meja Kerja 6	48	95.28	4.72	0.00	0.00
Meja Kerja 1	48	72.08	27.92	0.00	0.00
WIP Out M Tekuk 1	48	90.77	9.23	0.00	0.00
Titik Setting Tekuk 1	48	24.95	42.32	32.72	0.00
WIP Out M Tekuk 2 .1	48	100.00	0.00	0.00	0.00
Roll Konveyor 1A	48	79.59	8.63	11.77	0.00
Roll Konveyor 2A	48	1.22	75.27	23.51	0.00
M Press 1	48	1.31	2.18	96.51	0.00
Titik Setting Press 2	48	85.21	9.41	5.38	0.00
WIP In M Press 2	48	87.61	12.39	0.00	0.00
M Press 2	48	17.22	59.10	23.68	0.00
Titik Setting Press S	48	47.31	49.74	2.95	0.00
WIP In M Press S	48	100.00	0.00	0.00	0.00
M Press S	48	23.62	64.54	11.84	0.00
Titik Setting Press 3	48	79.94	12.07	7.99	0.00
WIP In M Press 3	48	80.27	18.68	1.05	0.00
M Press 3	48	18.99	45.49	35.52	0.00
Titik Setting Press 4	48	78.32	13.17	8.51	0.00
WIP In M Press 4	48	78.72	19.72	1.55	0.00
M Press 4	48	17.66	44.45	37.89	0.00

wip jadi 2	48	100.00	0.00	0.00 | 0.00
WIP Out Akhir 2	48	100.00	0.00	0.00 | 0.00
WIP Out Spiral Kosong	48	79.35	20.65	0.00 | 0.00
Gudang Tembaga	48	0.00	100.00	0.00 | 0.00
Hanger Pipa Spiral	48	0.82	51.24	47.94 | 0.00
WIP Out Akhir Spiral	48	100.00	0.00	0.00 | 0.00
Gudang Cairan	48	0.01	99.99	0.00 | 0.00
Gudang Plat Gulungan	48	100.00	0.00	0.00 | 0.00
Colling Room	48	100.00	0.00	0.00 | 0.00
WIP JADI	48	28.24	71.76	0.00 | 0.00

LOCATION STATES BY PERCENTAGE (Single Capacity/Tanks)

Location Name	Scheduled Hours	% Operation	% Setup	% Idle	% Waiting	% Blocked	% Down
PU Block 1	48	99.48	0.00	0.52	0.00	0.00	0.00
PU Block 2	48	98.96	0.00	1.04	0.00	0.00	0.00
M Protective	48	84.87	0.00	15.13	0.00	0.00	0.00
M Tekuk 3	48	16.25	0.00	83.75	0.00	0.00	0.00
Meja Kerja 4 1.1	48	97.17	0.00	2.83	0.00	0.00	0.00
Meja Kerja 4 1.2	48	96.98	0.00	3.02	0.00	0.00	0.00
Meja Kerja 4 1	96	97.08	0.00	2.92	0.00	0.00	0.00
M Foil 1	48	1.59	0.00	0.64	0.00	97.77	0.00
M Foil 2	48	1.59	0.00	0.64	0.00	97.77	0.00
M Sletting 1.1	48	99.99	0.00	0.01	0.00	0.00	0.00
M Sletting 1.2	48	99.99	0.00	0.01	0.00	0.00	0.00
M Bending 1	48	4.98	0.00	95.02	0.00	0.00	0.00
M Alur 3	48	20.04	0.00	79.96	0.00	0.00	0.00
M Alur 1.1	48	19.91	0.00	80.09	0.00	0.00	0.00
M Alur 1.2	48	20.04	0.00	79.96	0.00	0.00	0.00
M Alur 1.3	48	9.96	0.00	90.04	0.00	0.00	0.00
M Alur 1.4	48	4.98	0.00	95.02	0.00	0.00	0.00
M Tekuk 1	48	19.91	0.00	80.09	0.00	0.00	0.00
M Tekuk 2	48	54.76	0.00	45.24	0.00	0.00	0.00
WIP Out M Tekuk 2 .2	48	0.00	0.00	82.24	0.00	17.76	0.00
Roll Konveyor 1B	48	0.00	0.00	43.72	0.00	56.28	0.00
Roll Konveyor 2B	48	0.00	0.00	20.91	0.00	79.09	0.00

Roll Konveyor 3	48	0.00	0.00	6.33	0.00	93.67	0.00
Roll Konveyor 4A	48	0.00	0.00	100.00	0.00	0.00	0.00
Roll Konveyor 5A	48	0.00	0.00	100.00	0.00	0.00	0.00
Roll Konveyor 5B	48	0.00	0.00	100.00	0.00	0.00	0.00
Roll Konveyor 4B	48	0.00	0.00	100.00	0.00	0.00	0.00
Roll Konveyor 6	48	0.00	0.00	100.00	0.00	0.00	0.00
Roll Konveyor 7	48	0.00	0.00	100.00	0.00	0.00	0.00
Meja Kerja 4 2.1	48	82.79	0.00	17.10	0.11	0.00	0.00
Meja Kerja 4 2.2	48	78.36	0.00	21.56	0.08	0.00	0.00
Meja Kerja 4 2	96	80.57	0.00	19.33	0.10	0.00	0.00
Foil 3	48	0.00	0.00	0.36	0.00	99.64	0.00
M Sletting 2	48	4.02	0.00	0.00	0.00	95.98	0.00
M Roll	48	0.00	0.00	0.06	0.00	99.94	0.00
M Spiral	48	99.97	0.00	0.03	0.00	0.00	0.00
M Cutting	48	4.72	0.00	95.28	0.00	0.00	0.00
M Injection 1	48	0.00	0.00	100.00	0.00	0.00	0.00
M Injection 2	48	0.00	0.00	100.00	0.00	0.00	0.00
M Injection 3	48	0.00	0.00	100.00	0.00	0.00	0.00
M Injection 4	48	0.00	0.00	100.00	0.00	0.00	0.00
Titik setting Spiral	48	0.00	0.00	65.55	0.40	34.05	0.00

RESOURCES

Resource Name	Number Units	Scheduled Hours	Average Minutes Of Times Used	Average Minutes Per Usage	Average Minutes Travel To Use	Average Minutes Travel To Park	% Blocked In Travel	% Util
OP Mixer	1	48	292	5.03	0.00	0.00	0.00	51.04
OP Protective	1	48	938	2.60	0.00	0.00	0.00	84.87
OP Tekuk3	1	48	1404	0.33	0.00	0.00	0.00	16.25
OP Meja kejra 4 1.1	1	48	462	6.04	0.00	0.00	0.00	96.98
OP Meja kejra 4 1.2	1	48	463	6.04	0.00	0.00	0.00	97.17
OP Meja kejra 4 1	2	96	925	6.04	0.00	0.00	0.00	97.08
OP Bending	1	48	34	0.00	0.00	0.00	0.00	0.00
OP Tekuk 2	1	48	374	0.00	0.00	0.00	0.00	0.00
OP MJ 1	1	48	748	0.50	0.00	0.00	0.00	12.99
OP Kon 7	1	48	120	0.00	0.00	0.00	0.00	0.00

OP P 2	1	48	30	0.00	0.00	0.00	0.00	0.00
OP P S	1	48	15	0.00	0.00	0.00	0.00	0.00
OP P 3	1	48	45	0.00	0.00	0.00	0.00	0.00
OP P 4	1	48	48	0.00	0.00	0.00	0.00	0.00
Operator.1	1	48	386	6.15	0.12	0.00	0.00	84.18
Operator.2	1	48	383	6.15	0.12	0.00	0.00	83.55
Operator	2	96	769	6.15	0.12	0.00	0.00	83.86

RESOURCE STATES BY PERCENTAGE

Resource Name	Scheduled Hours	% In Use	% To Use	Travel To Park	% Idle	% Down
OP Mixer	48	51.04	0.00	0.00	48.96	0.00
OP Protective	48	84.87	0.00	0.00	15.13	0.00
OP Tekuk3	48	16.25	0.00	0.00	83.75	0.00
OP Meja kejra 4 1.1	48	96.98	0.00	0.00	3.02	0.00
OP Meja kejra 4 1.2	48	97.17	0.00	0.00	2.83	0.00
OP Meja kejra 4 1	96	97.08	0.00	0.00	2.92	0.00
OP Bending	48	0.00	0.00	0.00	100.00	0.00
OP Tekuk 2	48	0.00	0.00	0.00	100.00	0.00
OP MJ 1	48	12.99	0.00	0.00	87.01	0.00
OP Kon 7	48	0.00	0.00	0.00	100.00	0.00
OP P 2	48	0.00	0.00	0.00	100.00	0.00
OP P S	48	0.00	0.00	0.00	100.00	0.00
OP P 3	48	0.00	0.00	0.00	100.00	0.00
OP P 4	48	0.00	0.00	0.00	100.00	0.00
Operator.1	48	82.53	1.65	0.00	15.82	0.00
Operator.2	48	81.90	1.64	0.00	16.45	0.00
Operator	96	82.22	1.64	0.00	16.14	0.00

FAILED ARRIVALS

Entity Name	Location Name	Total Failed
Drum Cairan	Gudang Cairan	0

Plat Lembaran M Foil 1 17006
Plat Lembaran M Foil 2 17006
Plat Lembaran Foil 3 17141
Pipa Tembaga Gudang Tembaga 0

ENTITY ACTIVITY

Entity Name	Total Exits	Quantity In System	Average Current In System	Average Minutes In Move Logic	Average Minutes Wait For Res, etc.	Average Minutes In Operation	Average Minutes Blocked
Plat Gulungan	0	0	-	-	-	-	-
Drum Cairan	0	17187	-	-	-	-	-
PU Block Besar	94	0	1454.90	0.62	0.00	75.00	1379.27
PU Block Potongan	0	2	-	-	-	-	-
Panel Sandwich PU	0	161	-	-	-	-	-
Panel Sandwich PU AF	307	0	513.82	0.23	0.00	24.38	489.20
Plat Lembaran	542	14	44.56	0.88	11.31	19.80	12.56
Plat Kosong	0	11	-	-	-	-	-
Panel Sandwich	0	3	-	-	-	-	-
Panel Sandwich AF	255	0	186.62	2.03	34.10	91.36	59.11
Plat Spiral	0	0	-	-	-	-	-
Pipa Spiral Kosong	0	3	-	-	-	-	-
Pipa Tembaga	136	17145	1438.91	0.08	0.00	0.00	1438.82
Pipa Panel Spiral	133	0	220.81	0.73	50.67	95.55	73.85

ENTITY STATES BY PERCENTAGE

Entity Name	% In Move Logic	% Wait For Res, etc.	% In Operation	% Blocked
Plat Gulungan	-	-	-	-
Drum Cairan	-	-	-	-
PU Block Besar	0.04	0.00	5.15	94.80
PU Block Potongan	-	-	-	-
Panel Sandwich PU	-	-	-	-
Panel Sandwich PU AF	0.05	0.00	4.75	95.21

Plat Lembaran	1.98	25.39	44.44	28.19
Plat Kosong	-	-	-	-
Panel Sandwich	-	-	-	-
Panel Sandwich AF	1.09	18.27	48.96	31.68
Plat Spiral	-	-	-	-
Pipa Spiral Kosong	-	-	-	-
Pipa Tembaga	0.01	0.00	0.00	99.99
Pipa Panel Spiral	0.33	22.95	43.27	33.45

D.2 Simulasi Tata Letak Usulan Produk Ukuran Kecil

D.2.1 Input

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********************************************************************************
*                                                                              *
*                    Formatted Listing of Model:                               *
*  D:\BECCA'S\SEMESTER 7\MY TA\TA IN PROGRESS\PROMOD SIMUL\SIMULASI LAYOUT BARU\voba 1.MOD  *
*                                                                              *
********************************************************************************
 Time Units:                 Minutes
 Distance Units:             Feet
********************************************************************************
*                            Locations                                         *
********************************************************************************
 Name                 Cap Units Stats      Rules          Cost
 -------------------- --- ----- ---------- --------------- ------------
 Mixer                2   1     Time Series Oldest, ,
 PU_Block_1           1   1     Time Series Oldest, , First
 PU_Block_2           1   1     Time Series Oldest, ,
 M_Slicing            inf 1     Time Series Oldest, ,
 WIP_In_Protect_      80  1     Time Series Oldest, ,
 M_Protective         1   1     Time Series Oldest, ,
 M_Tekuk_3            1   1     Time Series Oldest, ,
 WIP_Out_Tekuk_3      350 1     Time Series Oldest, ,
 Meja_Kerja_4_1       1   2     Time Series Oldest, , First
 Meja_Kerja_4_1.1     1   1     Time Series Oldest, ,
 Meja_Kerja_4_1.2     1   1     Time Series Oldest, ,
 WIP_Out_Akhir_1      inf 1     Time Series Oldest, ,
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M_Foil_1 1 1 Time Series Oldest, ,
M_Foil_2 1 1 Time Series Oldest, ,
M_Sletting_1.1 1 1 Time Series Oldest, ,
M_Sletting_1.2 1 1 Time Series Oldest, ,
WIP_In_Alur_3 inf 1 Time Series Oldest, ,
WIP_Out_Sletting_1.1_A1 inf 1 Time Series Oldest, ,
WIP_Out_Sletting_1.2_B2 inf 1 Time Series Oldest, ,
WIP_Out_Sletting_1.2_C1 inf 1 Time Series Oldest, ,
WIP_Out_Sletting_1.2_C2 inf 1 Time Series Oldest, ,
WIP_Out_Sletting_1.2_D1 inf 1 Time Series Oldest, ,
WIP_Out_Sletting_1.2_D2 inf 1 Time Series Oldest, ,
M_Bending_1 1 1 Time Series Oldest, ,
M_Alur_3 1 1 Time Series Oldest, ,
M_Alur_1.1 1 1 Time Series Oldest, ,
M_Alur_1.2 1 1 Time Series Oldest, ,
M_Alur_1.3 1 1 Time Series Oldest, ,
M_Alur_1.4 1 1 Time Series Oldest, ,
Meja_Kerja_6 inf 1 Time Series Oldest, ,
Meja_Kerja_1 inf 1 Time Series Oldest, ,
M_Tekuk_1 1 1 Time Series Oldest, ,
M_Tekuk_2 1 1 Time Series Oldest, ,
WIP_Out_M_Tekuk_1 100 1 Time Series Oldest, ,
Titik_Setting_Tekuk_1 2 1 Time Series Oldest, ,
WIP_Out_M_Tekuk_2_.1 100 1 Time Series Oldest, ,
WIP_Out_M_Tekuk_2_.2 1 1 Time Series Oldest, ,
Roll_Konveyor_1A 2 1 Time Series Oldest, ,
Roll_Konveyor_2A 2 1 Time Series Oldest, ,
Roll_Konveyor_1B 1 1 Time Series Oldest, ,
Roll_Konveyor_2B 1 1 Time Series Oldest, ,
Roll_Konveyor_3 1 1 Time Series Oldest, ,
M_Press_1 3 1 Time Series Oldest, ,
Roll_Konveyor_4A 1 1 Time Series Oldest, ,
Roll_Konveyor_5A 1 1 Time Series Oldest, ,
Roll_Konveyor_5B 1 1 Time Series Oldest, ,
Roll_Konveyor_4B 1 1 Time Series Oldest, ,
Roll_Konveyor_6 1 1 Time Series Oldest, ,
Roll_Konveyor_7 1 1 Time Series Oldest, ,

Titik_Setting_Press_2 2 1 Time Series Oldest, ,
WIP_In_M_Press_2 3 1 Time Series Oldest, ,
M_Press_2 3 1 Time Series Oldest, ,
Titik_Setting_Press_S 2 1 Time Series Oldest, ,
WIP_In_M_Press_S 3 1 Time Series Oldest, ,
M_Press_S 3 1 Time Series Oldest, ,
Titik_Setting_Press_3 2 1 Time Series Oldest, ,
WIP_In_M_Press_3 3 1 Time Series Oldest, ,
M_Press_3 3 1 Time Series Oldest, ,
Titik_Setting_Press_4 2 1 Time Series Oldest, ,
WIP_In_M_Press_4 3 1 Time Series Oldest, ,
M_Press_4 3 1 Time Series Oldest, ,
wip_jadi_2 270 1 Time Series Oldest, ,
Meja_Kerja_4_2 1 2 Time Series Oldest, , First
Meja_Kerja_4_2.1 1 1 Time Series Oldest, ,
Meja_Kerja_4_2.2 1 1 Time Series Oldest, ,
WIP_Out_Akhir_2 360 1 Time Series Oldest, ,
Foil_3 1 1 Time Series Oldest, ,
M_Sletting_2 1 1 Time Series Oldest, ,
M_Roll 1 1 Time Series Oldest, ,
M_Spiral 1 1 Time Series Oldest, ,
M_Cutting 1 1 Time Series Oldest, ,
WIP_Out_Spiral_Kosong inf 1 Time Series Oldest, ,
Gudang_Tembaga inf 1 Time Series Oldest, ,
Hanger_Pipa_Spiral 7 1 Time Series Oldest, ,
WIP_Out_Akhir_Spiral inf 1 Time Series Oldest, ,
Gudang_Cairan inf 1 Time Series Oldest, ,
Gudang_Plat_Gulungan inf 1 Time Series Oldest, ,
Colling_Room inf 1 Time Series Oldest, ,
M_Injection_1 1 1 Time Series Oldest, ,
M_Injection_2 1 1 Time Series Oldest, ,
M_Injection_3 1 1 Time Series Oldest, ,
M_Injection_4 1 1 Time Series Oldest, ,
Titik_setting_Spiral 1 1 Time Series Oldest, ,
WIP_JADI_ 360 1 Time Series Oldest, ,

```
*****************************************************************************
*                          Entities                                         *
*****************************************************************************
 Name               Speed (fpm)  Stats       Cost
 -------------------- ------------ ----------- ------------
 Plat_Gulungan        150          Time Series
 Drum_Cairan          150          Time Series
 PU_Block_Besar       150          Time Series
 PU_Block_Potongan    150          Time Series
 Panel_Sandwich_PU    150          Time Series
 Panel_Sandwich_PU_AF 150          Time Series
 Plat_Lembaran        150          Time Series
 Plat_Kosong          150          Time Series
 Panel_Sandwich       150          Time Series
 Panel_Sandwich_AF    150          Time Series
 Plat_Spiral          150          Time Series
 Pipa_Spiral_Kosong   150          Time Series
 Pipa_Tembaga         150          Time Series
 Pipa_Panel_Spiral    150          Time Series

*****************************************************************************
*                          Path Networks                                    *
*****************************************************************************
 Name                          Type       T/S            From     To       BI   Dist/Time  Speed
Factor
 ------------------------------ ----------- ---------------- -------- -------- ---- ---------- ------------
 Jalur_PU_Block                Passing    Time           N1       N2       Bi
                                          N2       N3       Bi
                                          N2       N4       Bi
                                          N3       N5       Bi
                                          N4       N5       Bi
                                          N6       N7       Bi
                                          N7       N8       Bi
                                          N8       N9       Bi
                                          N9       N10      Bi
                                          N10      N11      Bi
 Jalur_Pengiriman_Plat_Lembaran Passing    Time           N1       N2       Bi
```

		N1	N4	Bi	
		N1	N5	Bi	
		N3	N6	Bi	
		N1	N7	Bi	
		N1	N8	Bi	
		N9	N10	Bi	
jALUR_Transport_Brng_0.5_Jd	Passing	Time	N1	N2	Bi
		N3	N2	Bi	
		N4	N2	Bi	
		N5	N2	Bi	
		N6	N2	Bi	
		N1	N7	Bi	
		N3	N7	Bi	
		N4	N7	Bi	
		N5	N7	Bi	
		N6	N7	Bi	
Transport_produk_jadi	Passing	Time	N1	N2	Bi
		N3	N2	Bi	
		N2	N4	Bi	

****

* Interfaces *

****

Net	Node	Location
Jalur_PU_Block	N1	Gudang_Cairan
	N2	Mixer
	N3	PU_Block_1
	N4	PU_Block_2
	N5	M_Slicing
	N6	WIP_In_Protect_
	N7	M_Protective
	N8	M_Tekuk_3
	N9	WIP_Out_Tekuk_3
	N10	Meja_Kerja_4_1
	N11	WIP_Out_Akhir_1
Jalur_Pengiriman_Plat_Lembaran	N1	WIP_Out_M_Tekuk_2_.1

```
                    N2      Titik_Setting_Press_2
                    N4      Titik_Setting_Press_3
                    N5      Titik_Setting_Press_4
                    N3      M_Bending_1
                    N6      Titik_Setting_Press_S
                    N7      Roll_Konveyor_1A
                    N8      WIP_Out_M_Tekuk_2_.2
                    N9      Meja_Kerja_1
                    N10     M_Tekuk_2
 jALUR_Transport_Brng_0.5_Jd  N1      Roll_Konveyor_7
                    N2      WIP_JADI_
                    N3      M_Press_2
                    N4      M_Press_S
                    N5      M_Press_3
                    N6      M_Press_4
                    N7      wip_jadi_2
 Transport_produk_jadi      N1      WIP_JADI_
                    N2      Meja_Kerja_4_2
                    N3      WIP_Out_Akhir_2

************************************************************************
*                          Resources                                   *
************************************************************************
                          Res     Ent
 Name             Units Stats   Search    Search Path                   Motion
Cost
 ---------------- ----- -------- ---------- ------ ------------------------------ -------------- ---
---------
 OP_Mixer         1     By Unit  Closest    Oldest Jalur_PU_Block                Empty:
150 fpm
                                           Home: N1                     Full: 150 fpm
                                           (Return)
 OP_Protective          1          By Unit     Closest     Oldest Jalur_PU_Block
Empty: 150 fpm
                                           Home: N6                     Full: 150 fpm
                                           (Return)
```

OP_Tekuk3 1 By Unit Closest Oldest Jalur_PU_Block Empty: 150 fpm
Home: N8 Full: 150 fpm
(Return)
OP_Meja_kejra_4_1 2 By Unit Closest Oldest Jalur_PU_Block Empty: 150 fpm
Home: N10 Full: 150 fpm
(Return)
OP_Bending 1 By Unit Closest Oldest Jalur_Pengiriman_Plat_Lembaran Empty: 150 fpm
Home: N3 Full: 150 fpm
(Return)
OP_Tekuk_2 1 By Unit Closest Oldest Jalur_Pengiriman_Plat_Lembaran Empty: 150 fpm
Home: N1 Full: 150 fpm
(Return)
OP_MJ_1 1 By Unit Least Used Oldest Jalur_Pengiriman_Plat_Lembaran Empty: 150 fpm
Home: N9 Full: 150 fpm
(Return)
OP_Kon_7 1 By Unit Closest Oldest jALUR_Transport_Brng_0.5_Jd Empty: 150 fpm
Home: N1 Full: 150 fpm
(Return)
OP_P_2 1 By Unit Closest Oldest jALUR_Transport_Brng_0.5_Jd Empty: 150 fpm
Home: N3 Full: 150 fpm
(Return)
OP_P_S 1 By Unit Closest Oldest jALUR_Transport_Brng_0.5_Jd Empty: 150 fpm
Home: N4 Full: 150 fpm
(Return)
OP_P_3 1 By Unit Closest Oldest jALUR_Transport_Brng_0.5_Jd Empty: 150 fpm
Home: N5 Full: 150 fpm
(Return)

OP_P_4 1 By Unit Least Used Oldest jALUR_Transport_Brng_0.5_Jd Empty: 150 fpm

Home: N6 Full: 150 fpm

(Return)

Operator 2 By Unit Closest Oldest Transport_produk_jadi Empty: 150 fpm

Home: N1 Full: 150 fpm

****

* Processing *

****

Process Routing

Entity Location Operation Blk Output Destination Rule Move Logic

---

Drum_Cairan Gudang_Cairan 1 Drum_Cairan Mixer FIRST 1 MOVE WITH OP_Mixer FOR 69 SEC THEN FREE

Drum_Cairan Mixer GET OP_Mixer

WAIT 900 SEC

FREE OP_Mixer

1 Drum_Cairan PU_Block_1 TURN 1 MOVE WITH OP_Mixer FOR 25 SEC THEN FREE

Drum_Cairan PU_Block_2 TURN MOVE WITH OP_Mixer FOR 31 SEC THEN FREE

Drum_Cairan PU_Block_1 WAIT 3600 SEC 1 PU_Block_Besar M_Slicing FIRST 1 MOVE FOR 10 SEC

Drum_Cairan PU_Block_2 WAIT 3600 SEC 1 PU_Block_Besar M_Slicing FIRST 1 MOVE FOR 8 SEC

PU_Block_Besar M_Slicing SPLIT 5 AS PU_Block_Potongan

WAIT 120 SEC

PU_Block_Potongan M_Slicing 1 PU_Block_Potongan WIP_In_Protect_ FIRST 1 MOVE FOR 14 SEC

PU_Block_Potongan WIP_In_Protect_ 1
PU_Block_Potongan M_Protective FIRST 1 MOVE WITH OP_Protective FOR 20 SEC THEN FREE
PU_Block_Potongan M_Protective GET OP_Protective
WAIT 313 SEC
FREE OP_Protective
1 Panel_Sandwich_PU M_Tekuk_3 FIRST 1 MOVE WITH OP_Tekuk3 FOR 24 SEC THEN FREE
Panel_Sandwich_PU M_Tekuk_3 GET OP_Tekuk3
WAIT 60 SEC
FREE OP_Tekuk3
1 Panel_Sandwich_PU WIP_Out_Tekuk_3 FIRST 1 MOVE WITH OP_Tekuk3 FOR 29 SEC THEN FREE
Panel_Sandwich_PU WIP_Out_Tekuk_3 1
Panel_Sandwich_PU Meja_Kerja_4_1 FIRST 1 MOVE WITH OP_Meja_kejra_4_1 FOR 64 SEC THEN FREE
Panel_Sandwich_PU Meja_Kerja_4_1 GET OP_Meja_kejra_4_1
WAIT 1090 SEC
FREE OP_Meja_kejra_4_1
1 Panel_Sandwich_PU_AF WIP_Out_Akhir_1 FIRST 1 MOVE FOR 59 SEC
Panel_Sandwich_PU_AF WIP_Out_Akhir_1 1
Panel_Sandwich_PU_AF EXIT FIRST 1
Plat_Lembaran M_Foil_1 WAIT 10 SEC
1 Plat_Lembaran M_Sletting_1.1 FIRST 1
Plat_Lembaran M_Foil_2 WAIT 10 SEC 1 Plat_Lembaran M_Sletting_1.2 FIRST 1
Plat_Lembaran M_Sletting_1.1 WAIT 253 SEC 1 Plat_Lembaran WIP_In_Alur_3 TURN 1 MOVE FOR 17 SEC
Plat_Lembaran
WIP_Out_Sletting_1.1_A1 TURN MOVE FOR 9 SEC
Plat_Lembaran M_Sletting_1.2 WAIT 253 SEC 1 Plat_Lembaran WIP_Out_Sletting_1.2_B2 TURN 1 MOVE FOR 17 SEC

Plat_Lembaran
WIP_Out_Sletting_1.2_C1 TURN MOVE FOR 8 SEC
Plat_Lembaran WIP_In_Alur_3 1 Plat_Lembaran
M_Alur_3 FIRST 1 MOVE FOR 11 SEC
Plat_Lembaran M_Alur_3 WAIT 101 SEC 1 Plat_Lembaran
Meja_Kerja_6 FIRST 1 MOVE FOR 18 SEC
Plat_Lembaran Meja_Kerja_6 WAIT 60 SEC 1 Plat_Lembaran
M_Tekuk_1 FIRST 1 MOVE FOR 12 SEC
Plat_Lembaran M_Tekuk_1 WAIT 101 SEC 1 Plat_Lembaran
WIP_Out_M_Tekuk_1 FIRST 1 MOVE FOR 14 SEC
Plat_Lembaran WIP_Out_M_Tekuk_1 1 Plat_Lembaran
Titik_Setting_Tekuk_1 FIRST 1
Plat_Lembaran Titik_Setting_Tekuk_1 COMBINE 2
WAIT 300 SEC 1 Plat_Kosong
Roll_Konveyor_1B FIRST 1 MOVE FOR 13 SEC
Plat_Lembaran WIP_Out_Sletting_1.1_A1 1 Plat_Lembaran
M_Alur_1.1 FIRST 1 MOVE FOR 12 SEC
Plat_Lembaran WIP_Out_Sletting_1.2_B2 1 Plat_Lembaran
M_Alur_1.2 FIRST 1 MOVE FOR 12 SEC
Plat_Lembaran WIP_Out_Sletting_1.2_C1 1 Plat_Lembaran
WIP_Out_Sletting_1.2_C2 TURN 1 MOVE FOR 17 SEC
Plat_Lembaran
WIP_Out_Sletting_1.2_D1 TURN MOVE FOR 9 SEC
Plat_Lembaran WIP_Out_Sletting_1.2_C2 1 Plat_Lembaran
M_Alur_1.3 FIRST 1 MOVE FOR 12 SEC
Plat_Lembaran WIP_Out_Sletting_1.2_D1 1 Plat_Lembaran
WIP_Out_Sletting_1.2_D2 TURN 1 MOVE FOR 17 SEC
Plat_Lembaran M_Bending_1
TURN MOVE FOR 8 SEC
Plat_Lembaran WIP_Out_Sletting_1.2_D2 1 Plat_Lembaran
M_Alur_1.4 FIRST 1 MOVE FOR 12 SEC
Plat_Lembaran M_Bending_1 WAIT 101 SEC 1
Plat_Lembaran Titik_Setting_Press_S FIRST 1 MOVE WITH OP_Bending
FOR 60 SEC THEN FREE
Plat_Lembaran M_Alur_1.1 WAIT 101 SEC 1 Plat_Lembaran
Meja_Kerja_1 FIRST 1

Plat_Lembaran M_Alur_1.2 WAIT 101 SEC 1 Plat_Lembaran Meja_Kerja_1 FIRST 1
Plat_Lembaran M_Alur_1.3 WAIT 101 SEC 1 Plat_Lembaran Meja_Kerja_1 FIRST 1
Plat_Lembaran M_Alur_1.4 WAIT 101 SEC 1 Plat_Lembaran Meja_Kerja_1 FIRST 1
Plat_Lembaran Meja_Kerja_1 GET OP_MJ_1
WAIT 60 SEC
FREE OP_MJ_1
1 Plat_Lembaran M_Tekuk_2 FIRST 1 MOVE WITH OP_MJ_1 FOR 7 SEC THEN FREE

Plat_Lembaran M_Tekuk_2 WAIT 101 SEC 1 Plat_Lembaran WIP_Out_M_Tekuk_2_.1 FIRST 1
Plat_Lembaran WIP_Out_M_Tekuk_2_.1 1 Plat_Lembaran WIP_Out_M_Tekuk_2_.2 FULL 1 MOVE WITH OP_Tekuk_2 FOR 17 SEC THEN FREE
Plat_Lembaran Titik_Setting_Press_2 FULL MOVE WITH OP_Tekuk_2 FOR 32 SEC THEN FREE
Plat_Lembaran Titik_Setting_Press_3 FULL MOVE WITH OP_Tekuk_2 FOR 29 SEC THEN FREE
Plat_Lembaran Titik_Setting_Press_4 FULL MOVE WITH OP_Tekuk_2 FOR 40 SEC THEN FREE
Plat_Lembaran Roll_Konveyor_1A FULL MOVE WITH OP_Tekuk_2 FOR 5 SEC THEN FREE
Plat_Lembaran WIP_Out_M_Tekuk_2_.2 1 Plat_Lembaran Roll_Konveyor_2A FIRST 1 MOVE FOR 5 SEC
Plat_Lembaran Roll_Konveyor_1A COMBINE 2
WAIT 300 SEC
1 Plat_Kosong Roll_Konveyor_1B FIRST 1 MOVE FOR 9 SEC

Plat_Kosong Roll_Konveyor_1B 1 Plat_Kosong
Roll_Konveyor_2B FIRST 1 MOVE FOR 19 SEC
Plat_Lembaran Roll_Konveyor_2A COMBINE 2
WAIT 300 SEC
1 Plat_Kosong
Roll_Konveyor_2B FIRST 1 MOVE FOR 9 SEC
Plat_Kosong Roll_Konveyor_2B 1 Plat_Kosong
Roll_Konveyor_3 FIRST 1 MOVE FOR 9 SEC
Plat_Kosong Roll_Konveyor_3 1 Plat_Kosong
M_Press_1 FIRST 1 MOVE FOR 20 SEC
Plat_Kosong M_Press_1 ACCUM 3
WAIT 4020 SEC 1 Panel_Sandwich
Roll_Konveyor_4A FIRST 1 MOVE FOR 22 SEC
Panel_Sandwich Roll_Konveyor_4A 1 Panel_Sandwich
Roll_Konveyor_5A FIRST 1 MOVE FOR 9 SEC
Panel_Sandwich Roll_Konveyor_5A 1 Panel_Sandwich
Roll_Konveyor_5B FIRST 1 MOVE FOR 9 SEC
Panel_Sandwich Roll_Konveyor_5B 1 Panel_Sandwich
Roll_Konveyor_4B FIRST 1 MOVE FOR 9 SEC
Panel_Sandwich Roll_Konveyor_4B 1 Panel_Sandwich
Roll_Konveyor_6 FIRST 1 MOVE FOR 9 SEC
Panel_Sandwich Roll_Konveyor_6 1 Panel_Sandwich
Roll_Konveyor_7 FIRST 1 MOVE FOR 9 SEC
Panel_Sandwich Roll_Konveyor_7 1 Panel_Sandwich
WIP_JADI_ FULL 1 MOVE WITH OP_Kon_7 FOR 70 SEC THEN
FREE
Panel_Sandwich wip_jadi_2
FULL MOVE WITH OP_P_2 FOR 40 SEC THEN FREE
Plat_Lembaran Titik_Setting_Press_2 COMBINE 2
WAIT 300 SEC
1 Plat_Kosong
WIP_In_M_Press_2 FIRST 1
Plat_Lembaran Titik_Setting_Press_S COMBINE 2
WAIT 300 SEC
1 Plat_Kosong
WIP_In_M_Press_S FIRST 1
Plat_Lembaran Titik_Setting_Press_3 COMBINE 2

```
                    WAIT  300  SEC              1       Plat_Kosong
WIP_In_M_Press_3      FIRST 1
 Plat_Lembaran      Titik_Setting_Press_4  COMBINE 2
                    WAIT 300 SEC
                                1                      Plat_Kosong
WIP_In_M_Press_4      FIRST 1
 Plat_Kosong        WIP_In_M_Press_2              1    Plat_Kosong
M_Press_2          FIRST 1  MOVE FOR 13 SEC


 Plat_Kosong        WIP_In_M_Press_S              1    Plat_Kosong
M_Press_S          FIRST 1  MOVE FOR 13 SEC
 Plat_Kosong        WIP_In_M_Press_3              1    Plat_Kosong
M_Press_3          FIRST 1  MOVE FOR 32 SEC
 Plat_Kosong        WIP_In_M_Press_4              1    Plat_Kosong
M_Press_4          FIRST 1  MOVE FOR 17 SEC
 Plat_Kosong      M_Press_2          ACCUM 3
                    WAIT 4020 SEC
                                1    Panel_Sandwich      WIP_JADI_
FULL 1   MOVE WITH OP_P_2 FOR 59 SEC THEN FREE
                                     Panel_Sandwich      wip_jadi_2
FULL     MOVE WITH OP_P_2 FOR 40 SEC THEN FREE
 Plat_Kosong      M_Press_S          ACCUM 3
                    WAIT 4020 SEC
                                1    Panel_Sandwich      WIP_JADI_
FULL 1   MOVE WITH OP_P_S FOR 90 SEC THEN FREE
                                     Panel_Sandwich      wip_jadi_2
FULL     MOVE WITH OP_P_S FOR 79 SEC THEN FREE
 Plat_Kosong      M_Press_3          ACCUM 3
                    WAIT 4020 SEC
                                1    Panel_Sandwich      WIP_JADI_
FULL 1   MOVE WITH OP_P_3 FOR 83 SEC THEN FREE
                                     Panel_Sandwich      wip_jadi_2
FULL     MOVE WITH OP_P_3 FOR 83 SEC THEN FREE
 Plat_Kosong      M_Press_4          ACCUM 3
                    WAIT 4020 SEC
```

1 Panel_Sandwich WIP_JADI_
FULL 1 MOVE WITH OP_P_4 FOR 114 SEC THEN FREE
Panel_Sandwich wip_jadi_2
FULL MOVE WITH OP_P_4 FOR 92 SEC THEN FREE
Panel_Sandwich WIP_JADI_ 1 Panel_Sandwich
Meja_Kerja_4_2 FIRST 1 MOVE WITH Operator FOR 46 SEC THEN
FREE
Panel_Sandwich wip_jadi_2 1 Panel_Sandwich
Meja_Kerja_4_2 FIRST 1 MOVE WITH Operator FOR 99 SEC THEN
FREE
Panel_Sandwich Meja_Kerja_4_2 GET Operator
WAIT 1090 SEC
FREE Operator
1 Panel_Sandwich_AF
WIP_Out_Akhir_2 FIRST 1 MOVE WITH Operator FOR 20 SEC THEN
FREE
Panel_Sandwich_AF WIP_Out_Akhir_2 1
Panel_Sandwich_AF EXIT FIRST 1
Plat_Lembaran Foil_3 1 Plat_Lembaran
M_Sletting_2 FIRST 1
Plat_Lembaran M_Sletting_2 WAIT 50 SEC
1 Plat_Lembaran M_Roll
FIRST 1
Plat_Lembaran M_Roll 1 Plat_Lembaran
M_Spiral FIRST 1
Plat_Lembaran M_Spiral WAIT 505 SEC 1
Pipa_Spiral_Kosong M_Cutting FIRST 1
Pipa_Spiral_Kosong M_Cutting WAIT 60 SEC 1
Pipa_Spiral_Kosong WIP_Out_Spiral_Kosong FIRST 1 MOVE FOR 17 SEC

Pipa_Spiral_Kosong WIP_Out_Spiral_Kosong 1
Pipa_Spiral_Kosong Titik_setting_Spiral FIRST 1 MOVE FOR 17 SEC
Pipa_Tembaga Gudang_Tembaga 1 Pipa_Tembaga
Titik_setting_Spiral JOIN 1 MOVE FOR 5 SEC
Pipa_Spiral_Kosong Titik_setting_Spiral JOIN 1 Pipa_Tembaga
1 Pipa_Spiral_Kosong
Hanger_Pipa_Spiral FIRST 1

Pipa_Spiral_Kosong Hanger_Pipa_Spiral ACCUM 7
WAIT 4425 SEC
1 Pipa_Panel_Spiral
WIP_Out_Akhir_Spiral FIRST 1 MOVE FOR 10 SEC
Pipa_Panel_Spiral WIP_Out_Akhir_Spiral 1
Pipa_Panel_Spiral EXIT FIRST 1

****
* Arrivals *
****

Entity	Location	Qty each	First Time	Occurrences	Frequency	Logic
Plat_Lembaran	M_Foil_1	1	0	INF	1 Sec	
Plat_Lembaran	M_Foil_2	1	0	INF	1 Sec	
Drum_Cairan	Gudang_Cairan	1	0	INF	1 Sec	
Plat_Lembaran	Foil_3	1	0	INF	1 SEC	
Pipa_Tembaga	Gudang_Tembaga	1	0	INF	1 sec	

D.2.2 Output

General Report
Output from D:\BECCA'S\SEMESTER 7\MY TA\TA IN PROGRESS\PROMOD SIMUL\SIMULASI LAYOUT BARU\voba 1.MOD
Date: Mar/01/2012 Time: 01:05:52 PM

Scenario : Normal Run
Replication : 1 of 1
Simulation Time : 48 hr

LOCATIONS

Location Name	Scheduled Hours	Total Capacity	Entries	Average Minutes Per Entry	Average Contents	Maximum Contents	Current Contents	% Util
Mixer	48	2	98	58.31	1.98	2	2	99.22
PU Block 1	48	1	48	59.68	0.99	1	1	99.48

PU Block 2	48	1	48	59.37	0.98	1	1	98.96
M Slicing	48	999999	94	0.00	0	1	0	0.00
WIP In Protect	48	80	470	15.98	2.60	7	1	3.26
M Protective	48	1	469	5.21	0.84	1	1	84.87
M Tekuk 3	48	1	468	1.00	0.16	1	0	16.25
WIP Out Tekuk 3	48	350	468	475.56	77.27	160	159	22.08
Meja Kerja 4 1.1	48	1	155	18.05	0.97	1	1	97.17
Meja Kerja 4 1.2	48	1	154	18.13	0.96	1	1	96.98
Meja Kerja 4 1	96	2	309	18.09	0.97	2	2	97.08
WIP Out Akhir 1	48	999999	306	0.00	0	1	0	0.00
M Foil 1	48	1	684	4.21	1	1	1	100.00
M Foil 2	48	1	684	4.21	1	1	1	100.00
M Sletting 1.1	48	1	683	4.21	0.99	1	1	99.99
M Sletting 1.2	48	1	683	4.21	0.99	1	1	99.99
WIP In Alur 3	48	999999	341	0.00	0	1	0	0.00
WIP Out Sletting 1.1	48	999999	341	0.00	0	1	0	0.00
WIP Out Sletting 1.2	48	999999	341	0.00	0	1	0	0.00
WIP Out Sletting 1.2	48	999999	341	0.00	0	1	0	0.00
WIP Out Sletting 1.2	48	999999	171	0.00	0	1	0	0.00
WIP Out Sletting 1.2	48	999999	170	0.00	0	1	0	0.00
WIP Out Sletting 1.2	48	999999	85	0.00	0	1	0	0.00
M Bending 1	48	1	85	1.68	0.04	1	0	4.97
M Alur 3	48	1	341	1.68	0.19	1	0	19.93
M Alur 1.1	48	1	341	1.68	0.19	1	0	19.93
M Alur 1.2	48	1	341	1.68	0.19	1	0	19.93
M Alur 1.3	48	1	171	1.68	0.09	1	0	9.99
M Alur 1.4	48	1	85	1.68	0.04	1	0	4.97
Meja Kerja 6	48	999999	341	369.18	43.71	150	150	0.00
Meja Kerja 1	48	999999	938	1.92	0.62	2	1	0.00
M Tekuk 1	48	1	191	10.00	0.66	1	1	66.35
M Tekuk 2	48	1	937	1.68	0.54	1	1	54.71
WIP Out M Tekuk 1	48	100	190	1182.14	77.98	100	100	77.99
Titik Setting Tekuk 1	48	2	90	63.17	1.97	2	2	98.71
WIP Out M Tekuk 2 .1	48	100	936	0.00	0.00	2	0	0.00
WIP Out M Tekuk 2 .2	48	1	89	22.98	0.71	1	1	71.03
Roll Konveyor 1A	48	2	86	55.00	1.64	2	2	82.13
Roll Konveyor 2A	48	2	88	57.29	1.75	2	2	87.53

Roll Konveyor 1B	48	1	86	32.64	0.97	1	1	97.49
Roll Konveyor 2B	48	1	128	21.81	0.96	1	1	96.98
Roll Konveyor 3	48	1	127	22.10	0.97	1	1	97.50
M Press 1	48	3	126	67.56	2.95	3	3	98.53
Roll Konveyor 4A	48	1	123	0.00	0	1	0	0.00
Roll Konveyor 5A	48	1	123	0.00	0	1	0	0.00
Roll Konveyor 5B	48	1	123	0.00	0	1	0	0.00
Roll Konveyor 4B	48	1	123	0.00	0	1	0	0.00
Roll Konveyor 6	48	1	123	0.00	0	1	0	0.00
Roll Konveyor 7	48	1	123	0.00	0	1	0	0.00
Titik Setting Press 2	48	2	258	11.12	0.99	2	0	49.81
WIP In M Press 2	48	3	129	44.71	2.00	3	3	66.76
M Press 2	48	3	126	66.79	2.92	3	3	97.41
Titik Setting Press S	48	2	85	21.73	0.64	2	1	32.07
WIP In M Press S	48	3	42	0.00	0	1	0	0.00
M Press S	48	3	42	132.46	1.93	3	3	64.39
Titik Setting Press 3	48	2	248	7.39	0.63	2	0	31.83
WIP In M Press 3	48	3	124	32.11	1.38	3	1	46.09
M Press 3	48	3	123	67.83	2.89	3	3	96.57
Titik Setting Press 4	48	2	255	9.40	0.83	2	1	41.62
WIP In M Press 4	48	3	127	43.79	1.93	3	1	64.37
M Press 4	48	3	126	66.50	2.90	3	3	96.99
wip jadi 2	48	270	0	0.00	0	0	0	0.00
Meja Kerja 4 2.1	48	1	153	18.10	0.96	1	1	96.20
Meja Kerja 4 2.2	48	1	152	18.14	0.95	1	1	95.74
Meja Kerja 4 2	96	2	305	18.12	0.95	2	2	95.97
WIP Out Akhir 2	48	360	303	0.00	0	1	0	0.00
Foil 3	48	1	346	8.32	0.99	1	1	100.00
M Sletting 2	48	1	345	8.34	1	1	1	100.00
M Roll	48	1	344	8.36	0.99	1	1	99.94
M Spiral	48	1	343	8.39	0.99	1	1	99.97
M Cutting	48	1	342	0.99	0.11	1	1	11.86
WIP Out Spiral Kosong	48	999999	341	326.39	38.64	80	74	0.00
Gudang Tembaga	48	999999	172801	1437.80	86268.8	172534	172534	8.63
Hanger Pipa Spiral	48	7	266	73.76	6.81	7	7	97.33
WIP Out Akhir Spiral	48	999999	259	0.00	0	1	0	0.00

Gudang Cairan	48	999999	172801	1439.16	86350.3	172703	172703
8.64							
Gudang Plat Gulungan	48	999999	0	0.00	0	0	0 0.00
Colling Room	48	999999	0	0.00	0	0	0 0.00
M Injection 1	48	1	0	0.00	0	0	0 0.00
M Injection 2	48	1	0	0.00	0	0	0 0.00
M Injection 3	48	1	0	0.00	0	0	0 0.00
M Injection 4	48	1	0	0.00	0	0	0 0.00
Titik setting Spiral	48	1	267	10.25	0.95	1	1 95.05
WIP JADI	48	360	528	573.19	105.08	225	223 29.19

LOCATION STATES BY PERCENTAGE (Multiple Capacity)

		%		%		%
Location	Scheduled	%	Partially	%		%
Name	Hours	Empty	Occupied	Full		Down
---	---	---	---	---	---	---
Mixer	48	0.00	1.56	98.44		0.00
M Slicing	48	100.00	0.00	0.00		0.00
WIP In Protect	48	23.46	76.54	0.00		0.00
WIP Out Tekuk 3	48	3.20	96.80	0.00		0.00
WIP Out Akhir 1	48	100.00	0.00	0.00		0.00
WIP In Alur 3	48	100.00	0.00	0.00		0.00
WIP Out Sletting 1.1	48	100.00	0.00	0.00		0.00
WIP Out Sletting 1.2	48	100.00	0.00	0.00		0.00
WIP Out Sletting 1.2	48	100.00	0.00	0.00		0.00
WIP Out Sletting 1.2	48	100.00	0.00	0.00		0.00
WIP Out Sletting 1.2	48	100.00	0.00	0.00		0.00
WIP Out Sletting 1.2	48	100.00	0.00	0.00		0.00
Meja Kerja 6	48	37.13	62.87	0.00		0.00
Meja Kerja 1	48	52.38	47.62	0.00		0.00
WIP Out M Tekuk 1	48	2.69	40.20	57.11		0.00
Titik Setting Tekuk 1	48	0.70	1.17	98.13		0.00
WIP Out M Tekuk 2 .1	48	99.84	0.16	0.00		0.00
Roll Konveyor 1A	48	15.71	4.32	79.97		0.00
Roll Konveyor 2A	48	0.45	24.04	75.51		0.00
M Press 1	48	0.70	2.16	97.14		0.00
Titik Setting Press 2	48	44.45	11.48	44.07		0.00

WIP In M Press 2	48	8.65	49.92	41.43 | 0.00		
M Press 2	48	1.28	2.46	96.26 | 0.00		
Titik Setting Press S	48	43.15	49.56	7.29 | 0.00		
WIP In M Press S	48	100.00	0.00	0.00 | 0.00		
M Press S	48	2.81	65.59	31.59 | 0.00		
Titik Setting Press 3	48	61.61	13.12	25.27 | 0.00		
WIP In M Press 3	48	25.40	59.32	15.29 | 0.00		
M Press 3	48	1.84	4.53	93.63 | 0.00		
Titik Setting Press 4	48	50.31	16.14	33.55 | 0.00		
WIP In M Press 4	48	7.58	56.10	36.32 | 0.00		
M Press 4	48	1.93	1.92	96.15 | 0.00		
wip jadi 2	48	100.00	0.00	0.00 | 0.00		
WIP Out Akhir 2	48	100.00	0.00	0.00 | 0.00		
WIP Out Spiral Kosong	48	2.70	97.30	0.00 | 0.00		
Gudang Tembaga	48	0.00	100.00	0.00 | 0.00		
Hanger Pipa Spiral	48	0.38	4.58	95.04 | 0.00		
WIP Out Akhir Spiral	48	100.00	0.00	0.00 | 0.00		
Gudang Cairan	48	0.00	100.00	0.00 | 0.00		
Gudang Plat Gulungan	48	100.00	0.00	0.00 | 0.00		
Colling Room	48	100.00	0.00	0.00 | 0.00		
WIP JADI	48	4.28	95.72	0.00 | 0.00		

LOCATION STATES BY PERCENTAGE (Single Capacity/Tanks)

Location Name	Scheduled Hours	% Operation	% Setup	% Idle	% Waiting	% Blocked	% Down
PU Block 1	48	99.48	0.00	0.52	0.00	0.00	0.00
PU Block 2	48	98.96	0.00	1.04	0.00	0.00	0.00
M Protective	48	84.87	0.00	15.13	0.00	0.00	0.00
M Tekuk 3	48	16.25	0.00	83.75	0.00	0.00	0.00
Meja Kerja 4 1.1	48	97.17	0.00	2.83	0.00	0.00	0.00
Meja Kerja 4 1.2	48	96.98	0.00	3.02	0.00	0.00	0.00
Meja Kerja 4 1	96	97.08	0.00	2.92	0.00	0.00	0.00
M Foil 1	48	3.96	0.00	0.00	0.00	96.04	0.00
M Foil 2	48	3.96	0.00	0.00	0.00	96.04	0.00
M Sletting 1.1	48	99.99	0.00	0.01	0.00	0.00	0.00
M Sletting 1.2	48	99.99	0.00	0.01	0.00	0.00	0.00

M Bending 1	48	4.97	0.00	95.03	0.00	0.00	0.00
M Alur 3	48	19.93	0.00	80.07	0.00	0.00	0.00
M Alur 1.1	48	19.93	0.00	80.07	0.00	0.00	0.00
M Alur 1.2	48	19.93	0.00	80.07	0.00	0.00	0.00
M Alur 1.3	48	9.99	0.00	90.01	0.00	0.00	0.00
M Alur 1.4	48	4.97	0.00	95.03	0.00	0.00	0.00
M Tekuk 1	48	11.16	0.00	33.65	0.01	55.18	0.00
M Tekuk 2	48	54.71	0.00	45.29	0.00	0.00	0.00
WIP Out M Tekuk 2 .2	48	0.00	0.00	28.97	0.00	71.03	0.00
Roll Konveyor 1B	48	0.00	0.00	2.51	0.00	97.49	0.00
Roll Konveyor 2B	48	0.00	0.00	3.02	0.00	96.98	0.00
Roll Konveyor 3	48	0.00	0.00	2.50	0.00	97.50	0.00
Roll Konveyor 4A	48	0.00	0.00	100.00	0.00	0.00	0.00
Roll Konveyor 5A	48	0.00	0.00	100.00	0.00	0.00	0.00
Roll Konveyor 5B	48	0.00	0.00	100.00	0.00	0.00	0.00
Roll Konveyor 4B	48	0.00	0.00	100.00	0.00	0.00	0.00
Roll Konveyor 6	48	0.00	0.00	100.00	0.00	0.00	0.00
Roll Konveyor 7	48	0.00	0.00	100.00	0.00	0.00	0.00
Meja Kerja 4 2.1	48	96.20	0.00	3.80	0.00	0.00	0.00
Meja Kerja 4 2.2	48	95.74	0.00	4.26	0.00	0.00	0.00
Meja Kerja 4 2	96	95.97	0.00	4.03	0.00	0.00	0.00
Foil 3	48	0.00	0.00	0.00	0.00	100.00	0.00
M Sletting 2	48	9.98	0.00	0.00	0.00	90.02	0.00
M Roll	48	0.00	0.00	0.06	0.00	99.94	0.00
M Spiral	48	99.97	0.00	0.03	0.00	0.00	0.00
M Cutting	48	11.86	0.00	88.14	0.00	0.00	0.00
M Injection 1	48	0.00	0.00	100.00	0.00	0.00	0.00
M Injection 2	48	0.00	0.00	100.00	0.00	0.00	0.00
M Injection 3	48	0.00	0.00	100.00	0.00	0.00	0.00
M Injection 4	48	0.00	0.00	100.00	0.00	0.00	0.00
Titik setting Spiral	48	0.00	0.00	4.95	0.77	94.28	0.00

RESOURCES

Resource Name	Units	Scheduled Hours	Number Of Times Used	Average Minutes Per Usage	Average Minutes Travel To Use	Average Minutes Travel To Park	% Blocked In Travel	% Util

OP Mixer	1	48	292	5.03	0.00	0.00	0.00	51.04
OP Protective	1	48	938	2.60	0.00	0.00	0.00	84.87
OP Tekuk3	1	48	1404	0.33	0.00	0.00	0.00	16.25
OP Meja kejra 4 1.1	1	48	309	9.03	0.00	0.00	0.00	96.98
OP Meja kejra 4 1.2	1	48	309	9.05	0.00	0.00	0.00	97.17
OP Meja kejra 4 1	2	96	618	9.04	0.00	0.00	0.00	97.08
OP Bending	1	48	85	0.00	0.00	0.00	0.00	0.00
OP Tekuk 2	1	48	936	0.00	0.00	0.00	0.00	0.00
OP MJ 1	1	48	1875	0.50	0.00	0.00	0.00	32.57
OP Kon 7	1	48	123	0.00	0.00	0.00	0.00	0.00
OP P 2	1	48	123	0.00	0.00	0.00	0.00	0.00
OP P S	1	48	39	0.00	0.00	0.00	0.00	0.00
OP P 3	1	48	120	0.00	0.00	0.00	0.00	0.00
OP P 4	1	48	123	0.00	0.00	0.00	0.00	0.00
Operator.1	1	48	456	6.04	0.00	0.00	0.00	95.74
Operator.2	1	48	457	6.06	0.00	0.00	0.00	96.20
Operator	2	96	913	6.05	0.00	0.00	0.00	95.97

RESOURCE STATES BY PERCENTAGE

Resource Name	Scheduled Hours	% In Use	% Travel To Use	% Travel To Park	% Idle	% Down
OP Mixer	48	51.04	0.00	0.00	48.96	0.00
OP Protective	48	84.87	0.00	0.00	15.13	0.00
OP Tekuk3	48	16.25	0.00	0.00	83.75	0.00
OP Meja kejra 4 1.1	48	96.98	0.00	0.00	3.02	0.00
OP Meja kejra 4 1.2	48	97.17	0.00	0.00	2.83	0.00
OP Meja kejra 4 1	96	97.08	0.00	0.00	2.92	0.00
OP Bending	48	0.00	0.00	0.00	100.00	0.00
OP Tekuk 2	48	0.00	0.00	0.00	100.00	0.00
OP MJ 1	48	32.57	0.00	0.00	67.43	0.00
OP Kon 7	48	0.00	0.00	0.00	100.00	0.00
OP P 2	48	0.00	0.00	0.00	100.00	0.00
OP P S	48	0.00	0.00	0.00	100.00	0.00
OP P 3	48	0.00	0.00	0.00	100.00	0.00

OP P 4	48	0.00	0.00	100.00	0.00
Operator.1	48	95.74	0.00	4.26	0.00
Operator.2	48	96.20	0.00	3.80	0.00
Operator	96	95.97	0.00	4.03	0.00

FAILED ARRIVALS

Entity Name	Location Name	Total Failed
Drum Cairan	Gudang Cairan	0
Plat Lembaran	M Foil 1	172117
Plat Lembaran	M Foil 2	172117
Plat Lembaran	Foil 3	172455
Pipa Tembaga	Gudang Tembaga	0

ENTITY ACTIVITY

Entity Name	Total Exits	Current Quantity In System	Average Minutes In System	Average Minutes In Move Logic	Average Minutes Wait For Res, etc.	Average Minutes In Operation	Average Minutes Blocked
Plat Gulungan	0	0	-	-	-	-	-
Drum Cairan	0	172707	-	-	-	-	-
PU Block Besar	94	0	1461.87	0.62	0.00	75.00	1386.24
PU Block Potongan	0	2	-	-	-	-	-
Panel Sandwich PU	0	161	-	-	-	-	-
Panel Sandwich PU AF	306	1	513.25	1.21	0.00	24.38	487.65
Plat Lembaran	1108	267	96.58	0.77	3.25	8.54	84.00
Plat Kosong	0	23	-	-	-	-	-
Panel Sandwich	0	225	-	-	-	-	-
Panel Sandwich AF	303	0	715.66	0.72	6.95	90.16	617.81
Plat Spiral	0	0	-	-	-	-	-
Pipa Spiral Kosong	0	83	-	-	-	-	-
Pipa Tembaga	267	172534	1457.65	0.08	0.00	0.00	1457.57
Pipa Panel Spiral	259	0	440.89	0.73	1.83	84.00	354.32

ENTITY STATES BY PERCENTAGE

Entity Name	% In Move Logic	% Wait For Res, etc.	% In Operation	% Blocked
Plat Gulungan	-	-	-	-
Drum Cairan	-	-	-	-
PU Block Besar	0.04	0.00	5.13	94.83
PU Block Potongan	-	-	-	-
Panel Sandwich PU	-	-	-	-
Panel Sandwich PU AF	0.24	0.00	4.75	95.01
Plat Lembaran	0.80	3.37	8.85	86.97
Plat Kosong	-	-	-	-
Panel Sandwich	-	-	-	-
Panel Sandwich AF	0.10	0.97	12.60	86.33
Plat Spiral	-	-	-	-
Pipa Spiral Kosong	-	-	-	-
Pipa Tembaga	0.01	0.00	0.00	99.99
Pipa Panel Spiral	0.17	0.42	19.05	80.36

D.4. Simulasi Tata Letak Awal dengan Kapasitas Lokasi Saat Ini

```
********************************************************************************
*                                                                              *
*                    Formatted Listing of Model:                               *
* D:\BECCA'S\SEMESTER 7\MY TA\TA IN PROGRESS\PRINT LENGKAP\Data simulasi\600 lama terbatas.MOD *
*                                                                              *
********************************************************************************
 Time Units:                    Minutes
 Distance Units:                FeeT
********************************************************************************
*                            Locations                                         *
********************************************************************************
 Name                 Cap Units Stats      Rules          Cost
 -------------------- --- ----- ---------- -------------- ------------
 Mixer                2   1     Time Series Oldest, ,
 PU_Block_1           1   1     Time Series Oldest, , First
 PU_Block_2           1   1     Time Series Oldest, ,
 M_Slicing            1   1     Time Series Oldest, ,
 WIP_In_Protect_      90  1     Time Series Oldest, ,
 M_Protective         1   1     Time Series Oldest, ,
 M_Tekuk_3            1   1     Time Series Oldest, ,
 WIP_Out_Tekuk_3      90  1     Time Series Oldest, ,
 Meja_Kerja_4_1       1   2     Time Series Oldest, , First
 Meja_Kerja_4_1.1     1   1     Time Series Oldest, ,
 Meja_Kerja_4_1.2     1   1     Time Series Oldest, ,
 WIP_Out_Akhir_1      140 1     Time Series Oldest, ,
 M_Foil_1             1   1     Time Series Oldest, ,
 M_Foil_2             1   1     Time Series Oldest, ,
 M_Sletting_1.1       1   1     Time Series Oldest, ,
 M_Sletting_1.2       1   1     Time Series Oldest, ,
 WIP_In_Alur_3        100 1     Time Series Oldest, ,
 WIP_Out_Sletting_1.1_A1 100 1     Time Series Oldest, ,
 WIP_Out_Sletting_1.2_B2 100 1     Time Series Oldest, ,
 WIP_Out_Sletting_1.2_C1 100 1     Time Series Oldest, ,
 WIP_Out_Sletting_1.2_C2 100 1     Time Series Oldest, ,
```

WIP_Out_Sletting_1.2_D1 100 1 Time Series Oldest, ,
WIP_Out_Sletting_1.2_D2 100 1 Time Series Oldest, ,
M_Bending_1 1 1 Time Series Oldest, ,
M_Alur_3 1 1 Time Series Oldest, ,
M_Alur_1.1 1 1 Time Series Oldest, ,
M_Alur_1.2 1 1 Time Series Oldest, ,
M_Alur_1.3 1 1 Time Series Oldest, ,
M_Alur_1.4 1 1 Time Series Oldest, ,
Meja_Kerja_6 100 1 Time Series Oldest, ,
Meja_Kerja_1 100 1 Time Series Oldest, ,
M_Tekuk_1 1 1 Time Series Oldest, ,
M_Tekuk_2 1 1 Time Series Oldest, ,
WIP_Out_M_Tekuk_1 100 1 Time Series Oldest, ,
Titik_Setting_Tekuk_1 2 1 Time Series Oldest, ,
WIP_Out_M_Tekuk_2_.1 100 1 Time Series Oldest, ,
WIP_Out_M_Tekuk_2_.2 1 1 Time Series Oldest, ,
Roll_Konveyor_1A 2 1 Time Series Oldest, ,
Roll_Konveyor_2A 2 1 Time Series Oldest, ,
Roll_Konveyor_1B 1 1 Time Series Oldest, ,
Roll_Konveyor_2B 1 1 Time Series Oldest, ,
Roll_Konveyor_3 1 1 Time Series Oldest, ,
M_Press_1 3 1 Time Series Oldest, ,
Roll_Konveyor_4A 1 1 Time Series Oldest, ,
Roll_Konveyor_5A 1 1 Time Series Oldest, ,
Roll_Konveyor_5B 1 1 Time Series Oldest, ,
Roll_Konveyor_4B 1 1 Time Series Oldest, ,
Roll_Konveyor_6 1 1 Time Series Oldest, ,
Roll_Konveyor_7 1 1 Time Series Oldest, ,
Titik_Setting_Press_2 2 1 Time Series Oldest, ,
WIP_In_M_Press_2 3 1 Time Series Oldest, ,
M_Press_2 3 1 Time Series Oldest, ,
Titik_Setting_Press_S 2 1 Time Series Oldest, ,
WIP_In_M_Press_S 3 1 Time Series Oldest, ,
M_Press_S 3 1 Time Series Oldest, ,
Titik_Setting_Press_3 2 1 Time Series Oldest, ,
WIP_In_M_Press_3 3 1 Time Series Oldest, ,
M_Press_3 3 1 Time Series Oldest, ,

Titik_Setting_Press_4 2 1 Time Series Oldest, ,
WIP_In_M_Press_4 3 1 Time Series Oldest, ,
M_Press_4 3 1 Time Series Oldest, ,
Meja_Kerja_4_2 1 2 Time Series Oldest, , First
Meja_Kerja_4_2.1 1 1 Time Series Oldest, ,
Meja_Kerja_4_2.2 1 1 Time Series Oldest, ,
WIP_Out_Akhir_2 150 1 Time Series Oldest, ,
Foil_3 1 1 Time Series Oldest, ,
M_Sletting_2 1 1 Time Series Oldest, ,
M_Roll 1 1 Time Series Oldest, ,
M_Spiral 1 1 Time Series Oldest, ,
M_Cutting 1 1 Time Series Oldest, ,
WIP_Out_Spiral_Kosong 760 1 Time Series Oldest, ,
Gudang_Tembaga inf 1 Time Series Oldest, ,
Hanger_Pipa_Spiral 7 1 Time Series Oldest, ,
WIP_Out_Akhir_Spiral 760 1 Time Series Oldest, ,
Gudang_Cairan inf 1 Time Series Oldest, ,
Gudang_Plat_Gulungan inf 1 Time Series Oldest, ,
Colling_Room inf 1 Time Series Oldest, ,
M_Injection_1 1 1 Time Series Oldest, ,
M_Injection_2 1 1 Time Series Oldest, ,
M_Injection_3 1 1 Time Series Oldest, ,
M_Injection_4 1 1 Time Series Oldest, ,
Titik_setting_Spiral 1 1 Time Series Oldest, ,
WIP_JADI_ 50 1 Time Series Oldest, ,

****
* Entities *
****

Name	Speed (fpm)	Stats	Cost
Plat_Gulungan	150	Time Series	
Drum_Cairan	150	Time Series	
PU_Block_Besar	150	Time Series	
PU_Block_Potongan	150	Time Series	
Panel_Sandwich_PU	150	Time Series	
Panel_Sandwich_PU_AF	150	Time Series	

Plat_Lembaran 150 Time Series
Plat_Kosong 150 Time Series
Panel_Sandwich 150 Time Series
Panel_Sandwich_AF 150 Time Series
Plat_Spiral 150 Time Series
Pipa_Spiral_Kosong 150 Time Series
Pipa_Tembaga 150 Time Series
Pipa_Panel_Spiral 150 Time Series

****
* Path Networks *
****

Name	Type	T/S	From	To	BI	Dist/Time	Speed Factor
Jalur_PU_Block	Passing	Time	N1	N2	Bi		
			N2	N3	Bi		
			N2	N4	Bi		
			N3	N5	Bi		
			N4	N5	Bi		
			N6	N7	Bi		
			N7	N8	Bi		
			N8	N9	Bi		
			N9	N10	Bi		
			N10	N11	Bi		
Jalur_Pengiriman_Plat_Lembaran	Passing	Time	N1	N2	Bi		
			N1	N4	Bi		
			N1	N5	Bi		
			N3	N6	Bi		
			N1	N7	Bi		
			N1	N8	Bi		
			N9	N10	Bi		
jALUR_Transport_Brng_0.5_Jd	Passing	Time	N1	N2	Bi		
			N3	N2	Bi		
			N4	N2	Bi		
			N5	N2	Bi		
			N6	N2	Bi		
			N1	N7	Bi		

```
                                    N3      N7      Bi
                                    N4      N7      Bi
                                    N5      N7      Bi
                                    N6      N7      Bi
 Transport_produk_jadi      Passing    Time        N1      N2      Bi
                                    N3      N2      Bi
                                    N2      N4      Bi

*****************************************************************************
*                       Interfaces                      *
*****************************************************************************
 Net                    Node      Location
 ------------------------------ ---------- --------------------
 Jalur_PU_Block             N1       Gudang_Cairan
                    N2       Mixer
                    N3       PU_Block_1
                    N4       PU_Block_2
                    N5       M_Slicing
                    N6       WIP_In_Protect_
                    N7       M_Protective
                    N8       M_Tekuk_3
                    N9       WIP_Out_Tekuk_3
                    N10       Meja_Kerja_4_1
                    N11       WIP_Out_Akhir_1
 Jalur_Pengiriman_Plat_Lembaran N1       WIP_Out_M_Tekuk_2_.1
                    N2       Titik_Setting_Press_2
                    N4       Titik_Setting_Press_3
                    N5       Titik_Setting_Press_4
                    N3       M_Bending_1
                    N6       Titik_Setting_Press_S
                    N7       Roll_Konveyor_1A
                    N8       WIP_Out_M_Tekuk_2_.2
                    N9       Meja_Kerja_1
                    N10       M_Tekuk_2
 jALUR_Transport_Brng_0.5_Jd   N1       Roll_Konveyor_7
                    N2       WIP_JADI_
                    N3       M_Press_2
```

	N4	M_Press_S
	N5	M_Press_3
	N6	M_Press_4
Transport_produk_jadi	N1	WIP_JADI_
	N2	Meja_Kerja_4_2
	N3	WIP_Out_Akhir_2

****
* Resources *
****

Name	Units	Res Stats	Ent Search	Search Path	Motion	Cost
OP_Mixer	1	By Unit	Closest	Oldest Jalur_PU_Block	Empty: 150 fpm	
				Home: N1 (Return)	Full: 150 fpm	
OP_Protective	1	By Unit	Closest	Oldest Jalur_PU_Block	Empty: 150 fpm	
				Home: N6 (Return)	Full: 150 fpm	
OP_Tekuk3	1	By Unit	Closest	Oldest Jalur_PU_Block	Empty: 150 fpm	
				Home: N8 (Return)	Full: 150 fpm	
OP_Meja_kejra_4_1	2	By Unit	Closest	Oldest Jalur_PU_Block	Empty: 150 fpm	
				Home: N10 (Return)	Full: 150 fpm	
OP_Bending	1	By Unit	Closest	Oldest Jalur_Pengiriman_Plat_Lembaran	Empty: 150 fpm	
				Home: N3 (Return)	Full: 150 fpm	
OP_Tekuk_2	1	By Unit	Closest	Oldest Jalur_Pengiriman_Plat_Lembaran	Empty: 150 fpm	
				Home: N1 (Return)	Full: 150 fpm	

OP_MJ_1 1 By Unit Least Used Oldest Jalur_Pengiriman_Plat_Lembaran Empty: 150 fpm
Home: N9 Full: 150 fpm
(Return)
OP_Kon_7 1 By Unit Closest Oldest jALUR_Transport_Brng_0.5_Jd Empty: 150 fpm
Home: N1 Full: 150 fpm
(Return)
OP_P_2 1 By Unit Closest Oldest jALUR_Transport_Brng_0.5_Jd Empty: 150 fpm
Home: N3 Full: 150 fpm
(Return)
OP_P_S 1 By Unit Closest Oldest jALUR_Transport_Brng_0.5_Jd Empty: 150 fpm
Home: N4 Full: 150 fpm
(Return)
OP_P_3 1 By Unit Closest Oldest jALUR_Transport_Brng_0.5_Jd Empty: 150 fpm
Home: N5 Full: 150 fpm
(Return)
OP_P_4 1 By Unit Least Used Oldest jALUR_Transport_Brng_0.5_Jd Empty: 150 fpm
Home: N6 Full: 150 fpm
(Return)
Operator 2 By Unit Closest Oldest Transport_produk_jadi Empty: 150 fpm
Home: N1 Full: 150 fpm

****
* Processing *
****

Entity	Location	Process Operation	Blk	Routing Output	Destination	Rule	Move Logic
Drum_Cairan	Gudang_Cairan		1	Drum_Cairan	Mixer	FIRST 1	MOVE WITH OP_Mixer FOR 75 SEC THEN FREE

Drum_Cairan Mixer GET OP_Mixer
WAIT 900 SEC
FREE OP_Mixer
1 Drum_Cairan PU_Block_1
TURN 1 MOVE WITH OP_Mixer FOR 25 SEC THEN FREE
Drum_Cairan PU_Block_2
TURN MOVE WITH OP_Mixer FOR 31 SEC THEN FREE
Drum_Cairan PU_Block_1 WAIT 3600 SEC 1 PU_Block_Besar
M_Slicing FIRST 1 MOVE FOR 10 SEC
Drum_Cairan PU_Block_2 WAIT 3600 SEC 1 PU_Block_Besar
M_Slicing FIRST 1 MOVE FOR 8 SEC
PU_Block_Besar M_Slicing SPLIT 5 AS PU_Block_Potongan
WAIT 120 SEC
PU_Block_Potongan M_Slicing 1 PU_Block_Potongan
WIP_In_Protect_ FIRST 1 MOVE FOR 12 SEC
PU_Block_Potongan WIP_In_Protect_ 1 PU_Block_Potongan
M_Protective FIRST 1 MOVE WITH OP_Protective FOR 19 SEC THEN FREE
PU_Block_Potongan M_Protective GET OP_Protective
WAIT 313 SEC
FREE OP_Protective
1 Panel_Sandwich_PU M_Tekuk_3
FIRST 1 MOVE WITH OP_Tekuk3 FOR 19 SEC THEN FREE
Panel_Sandwich_PU M_Tekuk_3 GET OP_Tekuk3
WAIT 60 SEC
FREE OP_Tekuk3
1 Panel_Sandwich_PU WIP_Out_Tekuk_3
FIRST 1 MOVE WITH OP_Tekuk3 FOR 28 SEC THEN FREE
Panel_Sandwich_PU WIP_Out_Tekuk_3 1 Panel_Sandwich_PU
Meja_Kerja_4_1 FIRST 1 MOVE WITH OP_Meja_kejra_4_1 FOR 60 SEC THEN
FREE
Panel_Sandwich_PU Meja_Kerja_4_1 GET OP_Meja_kejra_4_1
WAIT 1009 SEC
FREE OP_Meja_kejra_4_1
1 Panel_Sandwich_PU_AF WIP_Out_Akhir_1
FIRST 1 MOVE FOR 59 SEC
Panel_Sandwich_PU_AF WIP_Out_Akhir_1 WAIT 48 HR

1 Panel_Sandwich_PU_AF EXIT
FIRST 1
Plat_Lembaran M_Foil_1 WAIT 10 SEC
1 Plat_Lembaran M_Sletting_1.1
FIRST 1
Plat_Lembaran M_Foil_2 WAIT 10 SEC 1 Plat_Lembaran
M_Sletting_1.2 FIRST 1
Plat_Lembaran M_Sletting_1.1 WAIT 253 SEC 1 Plat_Lembaran
WIP_In_Alur_3 TURN 1 MOVE FOR 17 SEC
Plat_Lembaran
WIP_Out_Sletting_1.1_A1 TURN MOVE FOR 9 SEC

Plat_Lembaran M_Sletting_1.2 WAIT 253 SEC 1 Plat_Lembaran
WIP_Out_Sletting_1.2_B2 TURN 1 MOVE FOR 17 SEC
Plat_Lembaran
WIP_Out_Sletting_1.2_C1 TURN MOVE FOR 8 SEC
Plat_Lembaran WIP_In_Alur_3 1 Plat_Lembaran M_Alur_3
FIRST 1 MOVE FOR 11 SEC
Plat_Lembaran M_Alur_3 WAIT 101 SEC 1 Plat_Lembaran
Meja_Kerja_6 FIRST 1 MOVE FOR 18 SEC
Plat_Lembaran Meja_Kerja_6 WAIT 60 SEC 1 Plat_Lembaran
M_Tekuk_1 FIRST 1 MOVE FOR 12 SEC
Plat_Lembaran M_Tekuk_1 WAIT 101 SEC 1 Plat_Lembaran
WIP_Out_M_Tekuk_1 FIRST 1 MOVE FOR 14 SEC
Plat_Lembaran WIP_Out_M_Tekuk_1 1 Plat_Lembaran
Titik_Setting_Tekuk_1 FIRST 1
Plat_Lembaran Titik_Setting_Tekuk_1 COMBINE 2
WAIT 300 SEC 1 Plat_Kosong
Roll_Konveyor_1B FIRST 1 MOVE FOR 13 SEC
Plat_Lembaran WIP_Out_Sletting_1.1_A1 1 Plat_Lembaran
M_Alur_1.1 FIRST 1 MOVE FOR 12 SEC
Plat_Lembaran WIP_Out_Sletting_1.2_B2 1 Plat_Lembaran
M_Alur_1.2 FIRST 1 MOVE FOR 12 SEC
Plat_Lembaran WIP_Out_Sletting_1.2_C1 1 Plat_Lembaran
WIP_Out_Sletting_1.2_C2 TURN 1 MOVE FOR 17 SEC
Plat_Lembaran
WIP_Out_Sletting_1.2_D1 TURN MOVE FOR 9 SEC

Plat_Lembaran WIP_Out_Sletting_1.2_C2 1 Plat_Lembaran M_Alur_1.3 FIRST 1 MOVE FOR 12 SEC

Plat_Lembaran WIP_Out_Sletting_1.2_D1 1 Plat_Lembaran WIP_Out_Sletting_1.2_D2 TURN 1 MOVE FOR 17 SEC

Plat_Lembaran M_Bending_1 TURN MOVE FOR 8 SEC

Plat_Lembaran WIP_Out_Sletting_1.2_D2 1 Plat_Lembaran M_Alur_1.4 FIRST 1 MOVE FOR 12 SEC

Plat_Lembaran M_Bending_1 WAIT 101 SEC 1 Plat_Lembaran Titik_Setting_Press_S FIRST 1 MOVE WITH OP_Bending FOR 60 SEC THEN FREE

Plat_Lembaran M_Alur_1.1 WAIT 101 SEC 1 Plat_Lembaran Meja_Kerja_1 FIRST 1

Plat_Lembaran M_Alur_1.2 WAIT 101 SEC 1 Plat_Lembaran Meja_Kerja_1 FIRST 1

Plat_Lembaran M_Alur_1.3 WAIT 101 SEC 1 Plat_Lembaran Meja_Kerja_1 FIRST 1

Plat_Lembaran M_Alur_1.4 WAIT 101 SEC 1 Plat_Lembaran Meja_Kerja_1 FIRST 1

Plat_Lembaran Meja_Kerja_1 GET OP_MJ_1
WAIT 60 SEC
FREE OP_MJ_1
1 Plat_Lembaran M_Tekuk_2 FIRST 1 MOVE WITH OP_MJ_1 FOR 7 SEC THEN FREE

Plat_Lembaran M_Tekuk_2 WAIT 101 SEC 1 Plat_Lembaran WIP_Out_M_Tekuk_2_.1 FIRST 1

Plat_Lembaran WIP_Out_M_Tekuk_2_.1 1 Plat_Lembaran WIP_Out_M_Tekuk_2_.2 FULL 1 MOVE WITH OP_Tekuk_2 FOR 17 SEC THEN FREE

Plat_Lembaran Titik_Setting_Press_2 FULL MOVE WITH OP_Tekuk_2 FOR 32 SEC THEN FREE

Plat_Lembaran Titik_Setting_Press_3 FULL MOVE WITH OP_Tekuk_2 FOR 29 SEC THEN FREE

Plat_Lembaran Titik_Setting_Press_4 FULL MOVE WITH OP_Tekuk_2 FOR 40 SEC THEN FREE

Plat_Lembaran Roll_Konveyor_1A
FULL MOVE WITH OP_Tekuk_2 FOR 5 SEC THEN FREE
Plat_Lembaran WIP_Out_M_Tekuk_2_.2 1 Plat_Lembaran
Roll_Konveyor_2A FIRST 1 MOVE FOR 5 SEC
Plat_Lembaran Roll_Konveyor_1A COMBINE 2
WAIT 300 SEC
1 Plat_Kosong Roll_Konveyor_1B
FIRST 1 MOVE FOR 9 SEC

Plat_Kosong Roll_Konveyor_1B 1 Plat_Kosong
Roll_Konveyor_2B FIRST 1 MOVE FOR 19 SEC
Plat_Lembaran Roll_Konveyor_2A COMBINE 2
WAIT 300 SEC
1 Plat_Kosong Roll_Konveyor_2B
FIRST 1 MOVE FOR 9 SEC
Plat_Kosong Roll_Konveyor_2B 1 Plat_Kosong
Roll_Konveyor_3 FIRST 1 MOVE FOR 9 SEC

Plat_Kosong Roll_Konveyor_3 1 Plat_Kosong M_Press_1
FIRST 1 MOVE FOR 20 SEC
Plat_Kosong M_Press_1 ACCUM 3
WAIT 4020 SEC 1 Panel_Sandwich
Roll_Konveyor_4A FIRST 1 MOVE FOR 22 SEC
Panel_Sandwich Roll_Konveyor_4A 1 Panel_Sandwich
Roll_Konveyor_5A FIRST 1 MOVE FOR 9 SEC
Panel_Sandwich Roll_Konveyor_5A 1 Panel_Sandwich
Roll_Konveyor_5B FIRST 1 MOVE FOR 9 SEC
Panel_Sandwich Roll_Konveyor_5B 1 Panel_Sandwich
Roll_Konveyor_4B FIRST 1 MOVE FOR 9 SEC
Panel_Sandwich Roll_Konveyor_4B 1 Panel_Sandwich
Roll_Konveyor_6 FIRST 1 MOVE FOR 9 SEC
Panel_Sandwich Roll_Konveyor_6 1 Panel_Sandwich
Roll_Konveyor_7 FIRST 1 MOVE FOR 9 SEC
Panel_Sandwich Roll_Konveyor_7 1 Panel_Sandwich
WIP_JADI_ FULL 1 MOVE WITH OP_Kon_7 FOR 70 SEC THEN FREE

Plat_Lembaran Titik_Setting_Press_2 COMBINE 2
WAIT 300 SEC
1 Plat_Kosong WIP_In_M_Press_2
FIRST 1
Plat_Lembaran Titik_Setting_Press_S COMBINE 2
WAIT 300 SEC
1 Plat_Kosong WIP_In_M_Press_S
FIRST 1
Plat_Lembaran Titik_Setting_Press_3 COMBINE 2
WAIT 300 SEC 1 Plat_Kosong
WIP_In_M_Press_3 FIRST 1
Plat_Lembaran Titik_Setting_Press_4 COMBINE 2
WAIT 300 SEC
1 Plat_Kosong WIP_In_M_Press_4
FIRST 1
Plat_Kosong WIP_In_M_Press_2 1 Plat_Kosong
M_Press_2 FIRST 1 MOVE FOR 13 SEC
Plat_Kosong WIP_In_M_Press_S 1 Plat_Kosong M_Press_S
FIRST 1 MOVE FOR 13 SEC
Plat_Kosong WIP_In_M_Press_3 1 Plat_Kosong
M_Press_3 FIRST 1 MOVE FOR 32 SEC
Plat_Kosong WIP_In_M_Press_4 1 Plat_Kosong
M_Press_4 FIRST 1 MOVE FOR 17 SEC
Plat_Kosong M_Press_2 ACCUM 3
WAIT 4020 SEC
1 Panel_Sandwich WIP_JADI_
FULL 1 MOVE WITH OP_P_2 FOR 84 SEC THEN FREE
Plat_Kosong M_Press_S ACCUM 3
WAIT 4020 SEC
1 Panel_Sandwich WIP_JADI_
FULL 1 MOVE WITH OP_P_S FOR 90 SEC THEN FREE
Plat_Kosong M_Press_3 ACCUM 3
WAIT 4020 SEC
1 Panel_Sandwich WIP_JADI_
FULL 1 MOVE WITH OP_P_3 FOR 86 SEC THEN FREE
Plat_Kosong M_Press_4 ACCUM 3

WAIT 4020 SEC

1 Panel_Sandwich WIP_JADI_ FULL 1 MOVE WITH OP_P_4 FOR 114 SEC THEN FREE

Panel_Sandwich WIP_JADI_ 1 Panel_Sandwich Meja_Kerja_4_2 FIRST 1 MOVE WITH Operator FOR 46 SEC THEN FREE

Panel_Sandwich Meja_Kerja_4_2 GET Operator

WAIT 1009 SEC

FREE Operator

1 Panel_Sandwich_AF WIP_Out_Akhir_2 FIRST 1 MOVE WITH Operator FOR 34 SEC THEN FREE

Panel_Sandwich_AF WIP_Out_Akhir_2 WAIT 48 HR

1 Panel_Sandwich_AF EXIT FIRST 1

Plat_Lembaran Foil_3 1 Plat_Lembaran M_Sletting_2 FIRST 1

Plat_Lembaran M_Sletting_2 WAIT 50 SEC

1 Plat_Lembaran M_Roll FIRST 1

Plat_Lembaran M_Roll 1 Plat_Lembaran M_Spiral FIRST 1

Plat_Lembaran M_Spiral WAIT 505 SEC 1 Pipa_Spiral_Kosong M_Cutting FIRST 1

Pipa_Spiral_Kosong M_Cutting WAIT 60 SEC 1 Pipa_Spiral_Kosong WIP_Out_Spiral_Kosong FIRST 1 MOVE FOR 17 SEC

Pipa_Spiral_Kosong WIP_Out_Spiral_Kosong 1 Pipa_Spiral_Kosong Titik_setting_Spiral FIRST 1 MOVE FOR 17 SEC

Pipa_Tembaga Gudang_Tembaga 1 Pipa_Tembaga Titik_setting_Spiral JOIN 1 MOVE FOR 5 SEC

Pipa_Spiral_Kosong Titik_setting_Spiral JOIN 1 Pipa_Tembaga

1 Pipa_Spiral_Kosong Hanger_Pipa_Spiral FIRST 1

Pipa_Spiral_Kosong Hanger_Pipa_Spiral ACCUM 7

WAIT 4425 SEC

1 Pipa_Panel_Spiral WIP_Out_Akhir_Spiral FIRST 1 MOVE FOR 10 SEC

Pipa_Panel_Spiral WIP_Out_Akhir_Spiral WAIT 48 HR

1 Pipa_Panel_Spiral EXIT FIRST 1

****

* Arrivals *

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Entity	Location	Qty each	First Time	Occurrences	Frequency	Logic
Plat_Lembaran	M_Foil_1	1	0	INF	1 Sec	
Plat_Lembaran	M_Foil_2	1	0	INF	1 Sec	
Drum_Cairan	Gudang_Cairan	1	0	INF	1 Sec	
Plat_Lembaran	Foil_3	1	0	INF	1 SEC	
Pipa_Tembaga	Gudang_Tembaga	1	0	INF	1 sec	

D.4.2 Output

General Report

Output from D:\BECCA'S\SEMESTER 7\MY TA\TA IN PROGRESS\PRINT LENGKAP\Data simulasi\600 lama terbatas.MOD

Date: Mar/02/2012 Time: 04:06:10 AM

Scenario : Normal Run

Replication : 1 of 1

Simulation Time : 48 hr

LOCATIONS

Location Name	Scheduled Hours	Capacity	Total Entries	Average Minutes Per Entry	Average Contents	Maximum Contents	Current Contents	% Util
Mixer	48	2	69	82.82	1.98	2	2	99.22
PU Block 1	48	1	34	84.26	0.99	1	1	99.48
PU Block 2	48	1	33	86.36	0.98	1	1	98.96
M Slicing	48	1	65	13.61	0.30	1	1	30.72
WIP In Protect	48	90	324	331.76	37.32	90	90	41.47

M Protective	48	1	234	11.21	0.91	1	1	91.13
M Tekuk 3	48	1	233	7.04	0.56	1	1	56.98
WIP Out Tekuk 3	48	90	232	757.94	61.05	90	90	67.84
Meja Kerja 4 1.1	48	1	71	39.41	0.97	1	1	97.17
Meja Kerja 4 1.2	48	1	71	39.34	0.96	1	1	96.99
Meja Kerja 4 1	96	2	142	39.37	0.97	2	2	97.08
WIP Out Akhir 1	48	140	140	2197.83	106.83	140	140	76.31
M Foil 1	48	1	665	4.33	1	1	1	100.00
M Foil 2	48	1	684	4.21	1	1	1	100.00
M Sletting 1.1	48	1	664	4.33	0.99	1	1	99.99
M Sletting 1.2	48	1	683	4.21	0.99	1	1	99.99
WIP In Alur 3	48	100	346	115.72	13.90	100	100	13.90
WIP Out Sletting 1.1	48	100	317	196.77	21.65	100	100	21.66
WIP Out Sletting 1.2	48	100	318	194.78	21.50	100	100	21.51
WIP Out Sletting 1.2	48	100	364	0.00	0	1	0	0.00
WIP Out Sletting 1.2	48	100	182	182.85	11.55	73	73	11.56
WIP Out Sletting 1.2	48	100	182	0.00	0	1	0	0.00
WIP Out Sletting 1.2	48	100	131	249.99	11.37	73	73	11.37
M Bending 1	48	1	51	24.37	0.43	1	1	43.17
M Alur 3	48	1	246	4.96	0.42	1	1	42.41
M Alur 1.1	48	1	217	6.51	0.49	1	1	49.06
M Alur 1.2	48	1	218	6.46	0.48	1	1	48.97
M Alur 1.3	48	1	109	11.29	0.42	1	1	42.74
M Alur 1.4	48	1	58	19.59	0.39	1	1	39.46
Meja Kerja 6	48	100	245	505.34	42.98	100	100	42.99
Meja Kerja 1	48	100	598	201.75	41.89	100	100	41.89
M Tekuk 1	48	1	145	13.28	0.66	1	1	66.88
M Tekuk 2	48	1	498	4.38	0.75	1	1	75.84
WIP Out M Tekuk 1	48	100	144	1560.15	78.00	100	100	78.01
Titik Setting Tekuk 1	48	2	44	129.22	1.97	2	2	98.71
WIP Out M Tekuk 2 .1	48	100	497	313.85	54.16	100	100	54.16
WIP Out M Tekuk 2 .2	48	1	43	59.65	0.89	1	1	89.07
Roll Konveyor 1A	48	2	38	138.75	1.83	2	2	91.54
Roll Konveyor 2A	48	2	42	130.17	1.89	2	2	94.92
Roll Konveyor 1B	48	1	39	72.21	0.97	1	1	97.79
Roll Konveyor 2B	48	1	58	48.46	0.97	1	1	97.61
Roll Konveyor 3	48	1	57	49.44	0.97	1	1	97.86

M Press 1	48	3	56	152.43	2.96	3	3	98.80
Roll Konveyor 4A	48	1	53	32.08	0.59	1	1	59.05
Roll Konveyor 5A	48	1	52	35.07	0.63	1	1	63.32
Roll Konveyor 5B	48	1	51	36.69	0.64	1	1	64.98
Roll Konveyor 4B	48	1	50	38.79	0.67	1	1	67.35
Roll Konveyor 6	48	1	49	39.94	0.67	1	1	67.96
Roll Konveyor 7	48	1	48	40.82	0.68	1	1	68.04
Titik Setting Press 2	48	2	108	41.17	1.54	2	2	77.21
WIP In M Press 2	48	3	53	135.26	2.48	3	3	82.97
M Press 2	48	3	50	168.65	2.92	3	3	97.60
Titik Setting Press S	48	2	50	69.30	1.20	2	2	60.16
WIP In M Press S	48	3	24	168.28	1.40	3	3	46.75
M Press S	48	3	21	344.09	2.50	3	3	83.63
Titik Setting Press 3	48	2	104	43.15	1.55	2	2	77.92
WIP In M Press 3	48	3	51	134.24	2.37	3	3	79.24
M Press 3	48	3	48	175.10	2.91	3	3	97.28
Titik Setting Press 4	48	2	104	45.27	1.63	2	2	81.75
WIP In M Press 4	48	3	51	146.74	2.59	3	3	86.62
M Press 4	48	3	48	175.04	2.91	3	3	97.25
Meja Kerja 4 2.1	48	1	76	36.45	0.96	1	1	96.20
Meja Kerja 4 2.2	48	1	76	36.26	0.95	1	1	95.69
Meja Kerja 4 2	96	2	152	36.35	0.95	2	2	95.95
WIP Out Akhir 2	48	150	150	2124.37	110.64	150	150	73.76
Foil 3	48	1	346	8.32	0.99	1	1	100.00
M Sletting 2	48	1	345	8.34	1	1	1	100.00
M Roll	48	1	344	8.36	0.99	1	1	99.94
M Spiral	48	1	343	8.39	0.99	1	1	99.97
M Cutting	48	1	342	0.99	0.11	1	1	11.86
WIP Out Spiral Kosong	48	760	341	326.39	38.64	80	74	5.09
Gudang Tembaga	48	999999	172801	1437.80	86268.8	172534	172534	8.63
Hanger Pipa Spiral	48	7	266	73.76	6.81	7	7	97.33
WIP Out Akhir Spiral	48	760	259	1377.58	123.88	259	259	16.30
Gudang Cairan	48	999999	172801	1439.23	86354.7	172732	172732	8.64
Gudang Plat Gulungan	48	999999	0	0.00	0	0	0	0.00
Colling Room	48	999999	0	0.00	0	0	0	0.00

M Injection 1	48	1	0	0.00	0	0	0	0.00
M Injection 2	48	1	0	0.00	0	0	0	0.00
M Injection 3	48	1	0	0.00	0	0	0	0.00
M Injection 4	48	1	0	0.00	0	0	0	0.00
Titik setting Spiral	48	1	267	10.25	0.95	1	1	95.05
WIP JADI	48	50	202	588.88	41.30	50	50	82.61

LOCATION STATES BY PERCENTAGE (Multiple Capacity)

Location Name	Scheduled Hours	% Empty	Partially Occupied	% Full	% Down
Mixer	48	0.00	1.56	98.44	0.00
WIP In Protect	48	13.04	56.24	30.72	0.00
WIP Out Tekuk 3	48	3.20	47.74	49.07	0.00
WIP Out Akhir 1	48	3.45	40.47	56.08	0.00
WIP In Alur 3	48	72.20	24.89	2.91	0.00
WIP Out Sletting 1.1	48	63.85	28.99	7.16	0.00
WIP Out Sletting 1.2	48	64.00	28.99	7.01	0.00
WIP Out Sletting 1.2	48	100.00	0.00	0.00	0.00
WIP Out Sletting 1.2	48	64.15	35.85	0.00	0.00
WIP Out Sletting 1.2	48	100.00	0.00	0.00	0.00
WIP Out Sletting 1.2	48	64.45	35.55	0.00	0.00
Meja Kerja 6	48	36.63	35.06	28.31	0.00
Meja Kerja 1	48	27.91	35.57	36.52	0.00
WIP Out M Tekuk 1	48	2.69	38.51	58.80	0.00
Titik Setting Tekuk 1	48	0.70	1.17	98.13	0.00
WIP Out M Tekuk 2 .1	48	33.62	19.59	46.79	0.00
Roll Konveyor 1A	48	7.61	1.70	90.69	0.00
Roll Konveyor 2A	48	0.38	9.40	90.22	0.00
M Press 1	48	0.70	1.35	97.95	0.00
Titik Setting Press 2	48	20.28	5.01	74.71	0.00
WIP In M Press 2	48	6.87	20.22	72.91	0.00
M Press 2	48	1.05	2.56	96.38	0.00
Titik Setting Press S	48	25.19	29.28	45.52	0.00
WIP In M Press S	48	49.15	7.32	43.53	0.00
M Press S	48	2.65	29.11	68.24	0.00

Titik Setting Press 3	48	19.89	4.38	75.73	0.00	
WIP In M Press 3	48	12.77	16.24	70.99	0.00	
M Press 3	48	1.28	4.06	94.66	0.00	
Titik Setting Press 4	48	16.02	4.46	79.52	0.00	
WIP In M Press 4	48	5.64	16.31	78.05	0.00	
M Press 4	48	1.62	2.06	96.32	0.00	
WIP Out Akhir 2	48	4.38	43.72	51.90	0.00	
WIP Out Spiral Kosong	48	2.70	97.30	0.00	0.00	
Gudang Tembaga	48	0.00	100.00	0.00	0.00	
Hanger Pipa Spiral	48	0.38	4.58	95.04	0.00	
WIP Out Akhir Spiral	48	4.70	95.30	0.00	0.00	
Gudang Cairan	48	0.00	100.00	0.00	0.00	
Gudang Plat Gulungan	48	100.00	0.00	0.00	0.00	
Colling Room	48	100.00	0.00	0.00	0.00	
WIP JADI	48	4.33	25.20	70.47	0.00	

LOCATION STATES BY PERCENTAGE (Single Capacity/Tanks)

Location Name	Scheduled Hours	% Operation	% Setup	% Idle	% Waiting	% Blocked	% Down
PU Block 1	48	70.83	0.00	0.52	0.00	28.65	0.00
PU Block 2	48	68.75	0.00	1.04	0.00	30.21	0.00
M Slicing	48	0.00	0.00	69.28	0.00	30.72	0.00
M Protective	48	42.39	0.00	8.87	0.00	48.74	0.00
M Tekuk 3	48	8.09	0.00	43.02	0.00	48.89	0.00
Meja Kerja 4 1.1	48	41.46	0.00	2.83	0.00	55.71	0.00
Meja Kerja 4 1.2	48	41.46	0.00	3.01	0.00	55.53	0.00
Meja Kerja 4 1	96	41.46	0.00	2.92	0.00	55.62	0.00
M Foil 1	48	3.85	0.00	0.00	0.00	96.15	0.00
M Foil 2	48	3.96	0.00	0.00	0.00	96.04	0.00
M Sletting 1.1	48	97.22	0.00	0.00	0.00	2.78	0.00
M Sletting 1.2	48	99.99	0.00	0.01	0.00	0.00	0.00
M Bending 1	48	2.98	0.00	56.83	0.00	40.19	0.00
M Alur 3	48	14.38	0.00	57.59	0.00	28.03	0.00
M Alur 1.1	48	12.68	0.00	50.94	0.00	36.38	0.00
M Alur 1.2	48	12.74	0.00	51.03	0.00	36.23	0.00
M Alur 1.3	48	6.37	0.00	57.26	0.00	36.37	0.00

M Alur 1.4	48	3.39	0.00	60.54	0.00	36.07	0.00
M Tekuk 1	48	8.48	0.00	33.11	0.00	58.41	0.00
M Tekuk 2	48	29.11	0.00	24.15	0.00	46.74	0.00
WIP Out M Tekuk 2 .2	48	0.00	0.00	10.93	0.00	89.07	0.00
Roll Konveyor 1B	48	0.00	0.00	2.21	0.00	97.79	0.00
Roll Konveyor 2B	48	0.00	0.00	2.39	0.00	97.61	0.00
Roll Konveyor 3	48	0.00	0.00	2.14	0.00	97.86	0.00
Roll Konveyor 4A	48	0.00	0.00	40.95	0.00	59.05	0.00
Roll Konveyor 5A	48	0.00	0.00	36.68	0.00	63.32	0.00
Roll Konveyor 5B	48	0.00	0.00	35.02	0.00	64.98	0.00
Roll Konveyor 4B	48	0.00	0.00	32.65	0.00	67.35	0.00
Roll Konveyor 6	48	0.00	0.00	32.04	0.00	67.96	0.00
Roll Konveyor 7	48	0.00	0.00	31.96	0.00	68.04	0.00
Meja Kerja 4 2.1	48	44.38	0.00	3.80	0.00	51.82	0.00
Meja Kerja 4 2.2	48	44.38	0.00	4.30	0.00	51.32	0.00
Meja Kerja 4 2	96	44.38	0.00	4.05	0.00	51.57	0.00
Foil 3	48	0.00	0.00	0.00	0.00	100.00	0.00
M Sletting 2	48	9.98	0.00	0.00	0.00	90.02	0.00
M Roll	48	0.00	0.00	0.06	0.00	99.94	0.00
M Spiral	48	99.97	0.00	0.03	0.00	0.00	0.00
M Cutting	48	11.86	0.00	88.14	0.00	0.00	0.00
M Injection 1	48	0.00	0.00	100.00	0.00	0.00	0.00
M Injection 2	48	0.00	0.00	100.00	0.00	0.00	0.00
M Injection 3	48	0.00	0.00	100.00	0.00	0.00	0.00
M Injection 4	48	0.00	0.00	100.00	0.00	0.00	0.00
Titik setting Spiral	48	0.00	0.00	4.95	0.77	94.28	0.00

RESOURCES

Resource Name	Units	Scheduled Hours	Number Of Times Used	Average Minutes Per Usage	Average Minutes Travel To Use	Average Minutes Travel To Park	% Blocked In Travel	% Util
OP Mixer	1	48	205	5.04	0.00	0.00	0.00	35.94
OP Protective	1	48	468	2.60	0.00	0.00	0.00	42.39
OP Tekuk3	1	48	698	0.33	0.00	0.00	0.00	8.09
OP Meja kejra 4 1.1	1	48	143	8.34	0.00	0.00	0.00	41.46

OP Meja kejra 4 1.2	1	48	141	8.46	0.00	0.00	0.00 41.46
OP Meja kejra 4 1	2	96	284	8.40	0.00	0.00	0.00 41.46
OP Bending	1	48	50	0.00	0.00	0.00	0.00 0.00
OP Tekuk 2	1	48	397	0.00	0.00	0.00	0.00 0.00
OP MJ 1	1	48	1096	0.54	0.00	0.00	0.00 20.76
OP Kon 7	1	48	47	0.00	0.00	0.00	0.00 0.00
OP P 2	1	48	47	0.00	0.00	0.00	0.00 0.00
OP P S	1	48	18	0.00	0.00	0.00	0.00 0.00
OP P 3	1	48	45	0.00	0.00	0.00	0.00 0.00
OP P 4	1	48	45	0.00	0.00	0.00	0.00 0.00
Operator.1	1	48	228	5.60	0.00	0.00	0.00 44.38
Operator.2	1	48	226	5.65	0.00	0.00	0.00 44.38
Operator	2	96	454	5.63	0.00	0.00	0.00 44.38

RESOURCE STATES BY PERCENTAGE

Resource Name	Scheduled Hours	% In Use	% To Use	Travel To Park	% Travel	% Idle	% Down
OP Mixer	48	35.94	0.00	0.00	64.06	0.00	
OP Protective	48	42.39	0.00	0.00	57.61	0.00	
OP Tekuk3	48	8.09	0.00	0.00	91.91	0.00	
OP Meja kejra 4 1.1	48	41.46	0.00	0.00	58.54	0.00	
OP Meja kejra 4 1.2	48	41.46	0.00	0.00	58.54	0.00	
OP Meja kejra 4 1	96	41.46	0.00	0.00	58.54	0.00	
OP Bending	48	0.00	0.00	0.00	100.00	0.00	
OP Tekuk 2	48	0.00	0.00	0.00	100.00	0.00	
OP MJ 1	48	20.76	0.00	0.00	79.24	0.00	
OP Kon 7	48	0.00	0.00	0.00	100.00	0.00	
OP P 2	48	0.00	0.00	0.00	100.00	0.00	
OP P S	48	0.00	0.00	0.00	100.00	0.00	
OP P 3	48	0.00	0.00	0.00	100.00	0.00	
OP P 4	48	0.00	0.00	0.00	100.00	0.00	
Operator.1	48	44.38	0.00	0.00	55.62	0.00	
Operator.2	48	44.38	0.00	0.00	55.62	0.00	
Operator	96	44.38	0.00	0.00	55.62	0.00	

FAILED ARRIVALS

Entity Name	Location Name	Total Failed
Drum Cairan	Gudang Cairan	0
Plat Lembaran	M Foil 1	172136
Plat Lembaran	M Foil 2	172117
Plat Lembaran	Foil 3	172455
Pipa Tembaga	Gudang Tembaga	0

ENTITY ACTIVITY

Entity Name	Total Exits	Current Quantity In System	Average Minutes In System	Average Minutes In Move Logic	Average Minutes Wait For Res, etc.	Average Minutes In Operation	Average Minutes Blocked
Plat Gulungan	0	0	-	-	-	-	-
Drum Cairan	0	172736	-	-	-	-	-
PU Block Besar	65	0	1027.23	0.84	0.00	75.00	951.39
PU Block Potongan	0	92	-	-	-	-	-
Panel Sandwich PU	0	93	-	-	-	-	-
Panel Sandwich PU AF	0	140	-	-	-	-	-
Plat Lembaran	490	870	65.24	0.76	3.40	8.47	52.59
Plat Kosong	0	30	-	-	-	-	-
Panel Sandwich	0	58	-	-	-	-	-
Panel Sandwich AF	0	150	-	-	-	-	-
Plat Spiral	0	0	-	-	-	-	-
Pipa Spiral Kosong	0	83	-	-	-	-	-
Pipa Tembaga	267	172534	1457.65	0.08	0.00	0.00	1457.57
Pipa Panel Spiral	0	259	-	-	-	-	-

ENTITY STATES BY PERCENTAGE

Entity Name	% In Move Logic	% Wait For Res, etc.	% In Operation	% Blocked
Plat Gulungan	-	-	-	-
Drum Cairan	-	-	-	-

PU Block Besar	0.08	0.00	7.30	92.62
PU Block Potongan	-	-	-	-
Panel Sandwich PU	-	-	-	-
Panel Sandwich PU AF	-	-	-	-
Plat Lembaran	1.18	5.22	12.99	80.61
Plat Kosong	-	-	-	-
Panel Sandwich	-	-	-	-
Panel Sandwich AF	-	-	-	-
Plat Spiral	-	-	-	-
Pipa Spiral Kosong	-	-	-	-
Pipa Tembaga	0.01	0.00	0.00	99.99
Pipa Panel Spiral	-	-	-	-

PT. ALPINE COOL UTAMA

Jl. Pangeran Jayakarta No. 87, Jakarta Pusat 10730
Phone : (021) 6268211, 6397217 Fax : (021) 6596407

No : 001/ACU/012/IV/2012

Hal : Surat Keterangan PKL

Dengan ini menerangkan bahwa, yang tersebut di bawah ini :

Nama : Rebecca Djajeng Liem

NRP : 0823020

Alamat : Jl. Lampersari No. 20, Semarang

Adalah benar telah melakukan penelitian di PT. Alpine Cool Utama sebagai syarat pembuatan Tugas Akhir.

Demikian surat keterangan ini dibuat dengan benar, untuk dipergunakan sebagaimana mestinya.

Jakarta, 12 April 2012

Charly Amene Utama