



# Peter Dhondt Global Head Sales CERM



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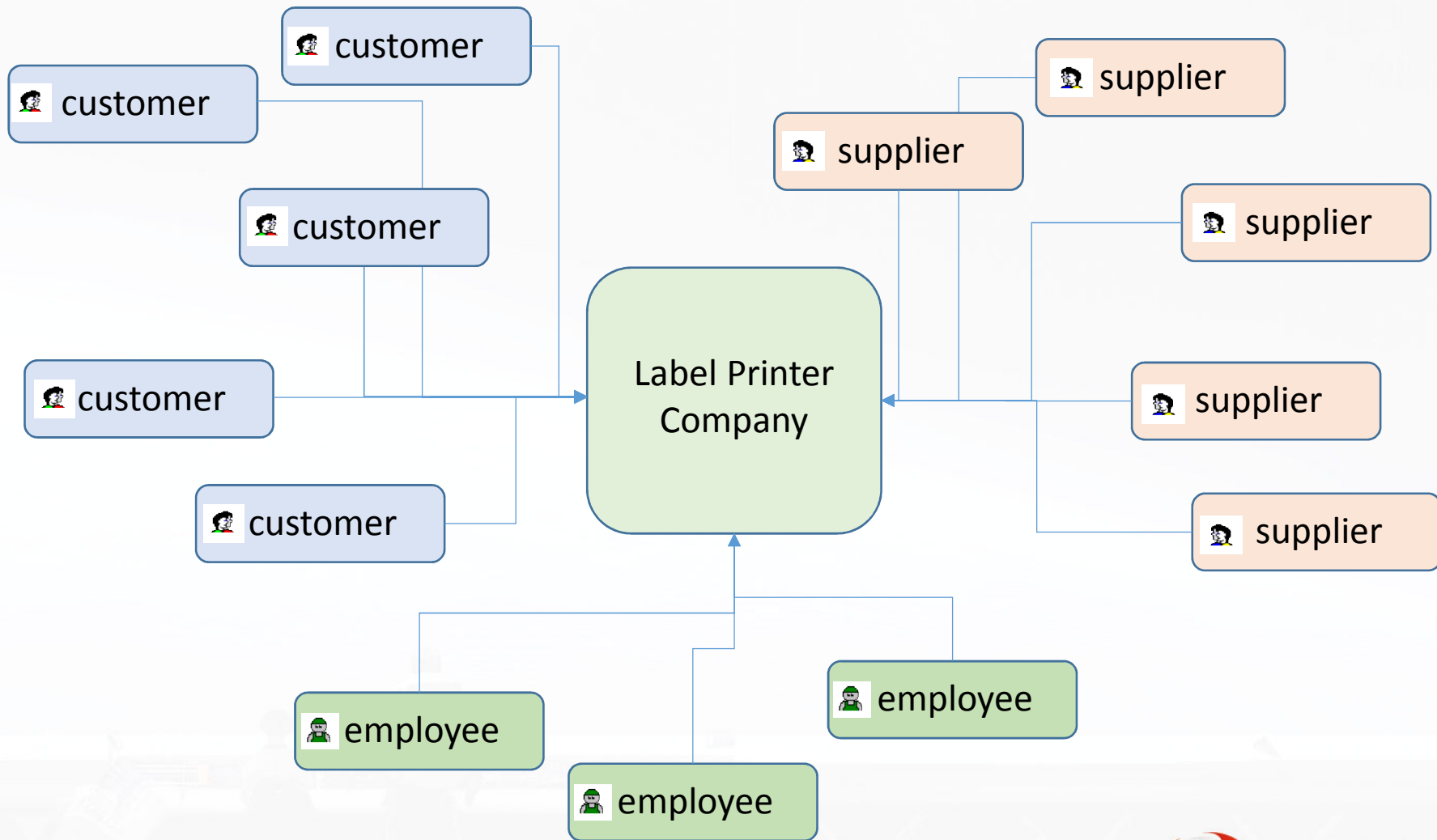
# EFFICIENT JOB PLANNING AND PRODUCTION SCHEDULING

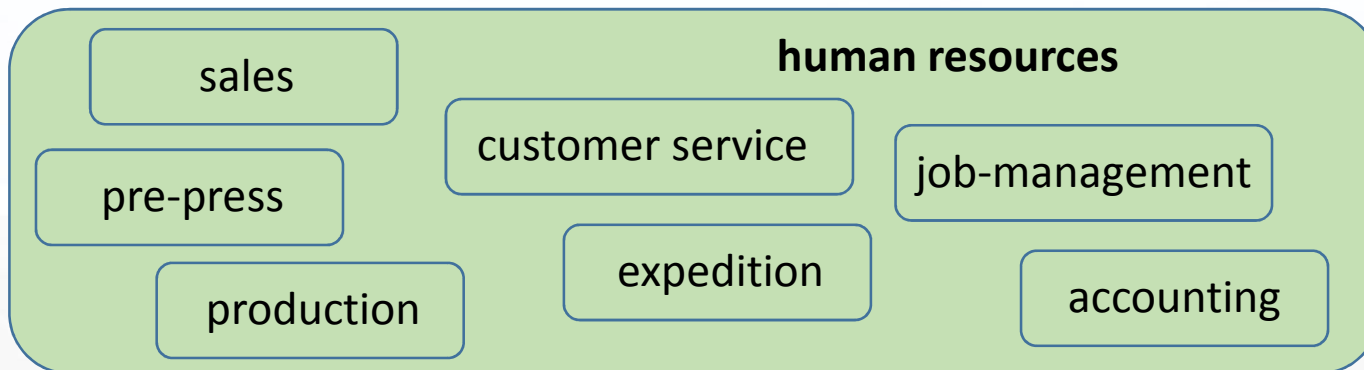
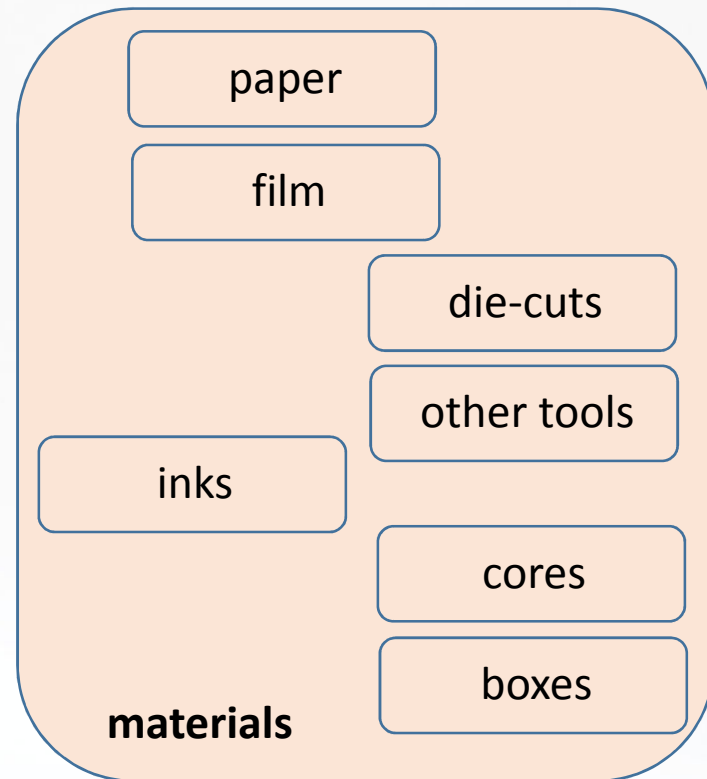
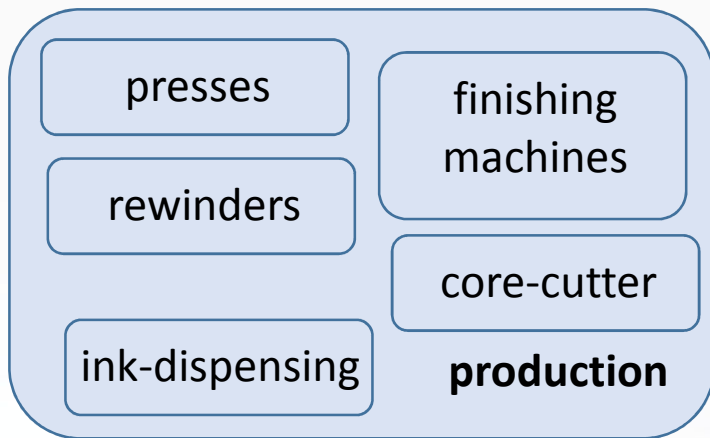


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work scheme

jobs done

**production**

materials needed

materials available

materials received

**materials**

scheduler

customer service

**human resources**

job-manager

production-manager



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products  
delivered  
on time

**customers**

materials  
ordered  
on time

**suppliers**

scheduler

**employees**

jobs  
scheduled  
on time

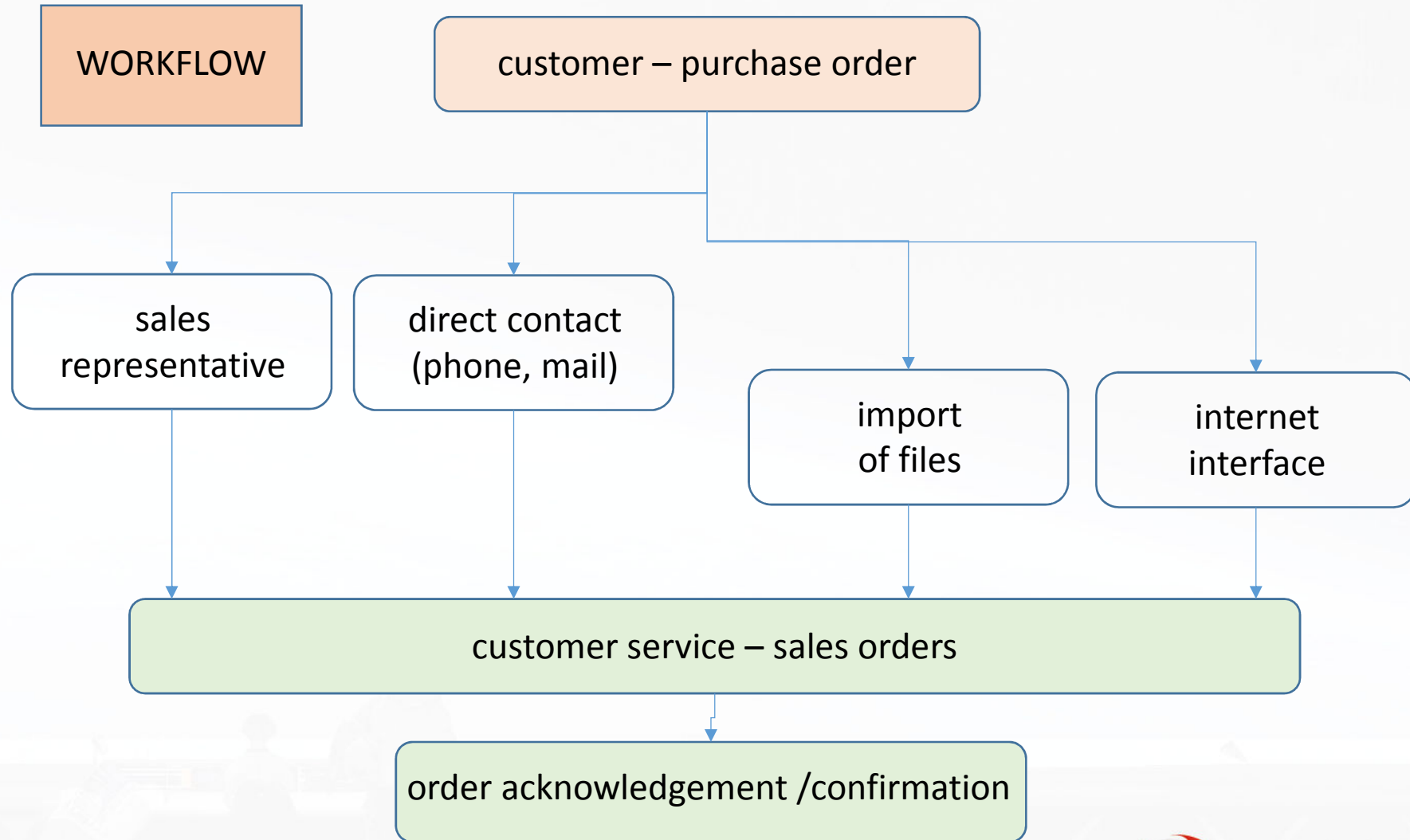


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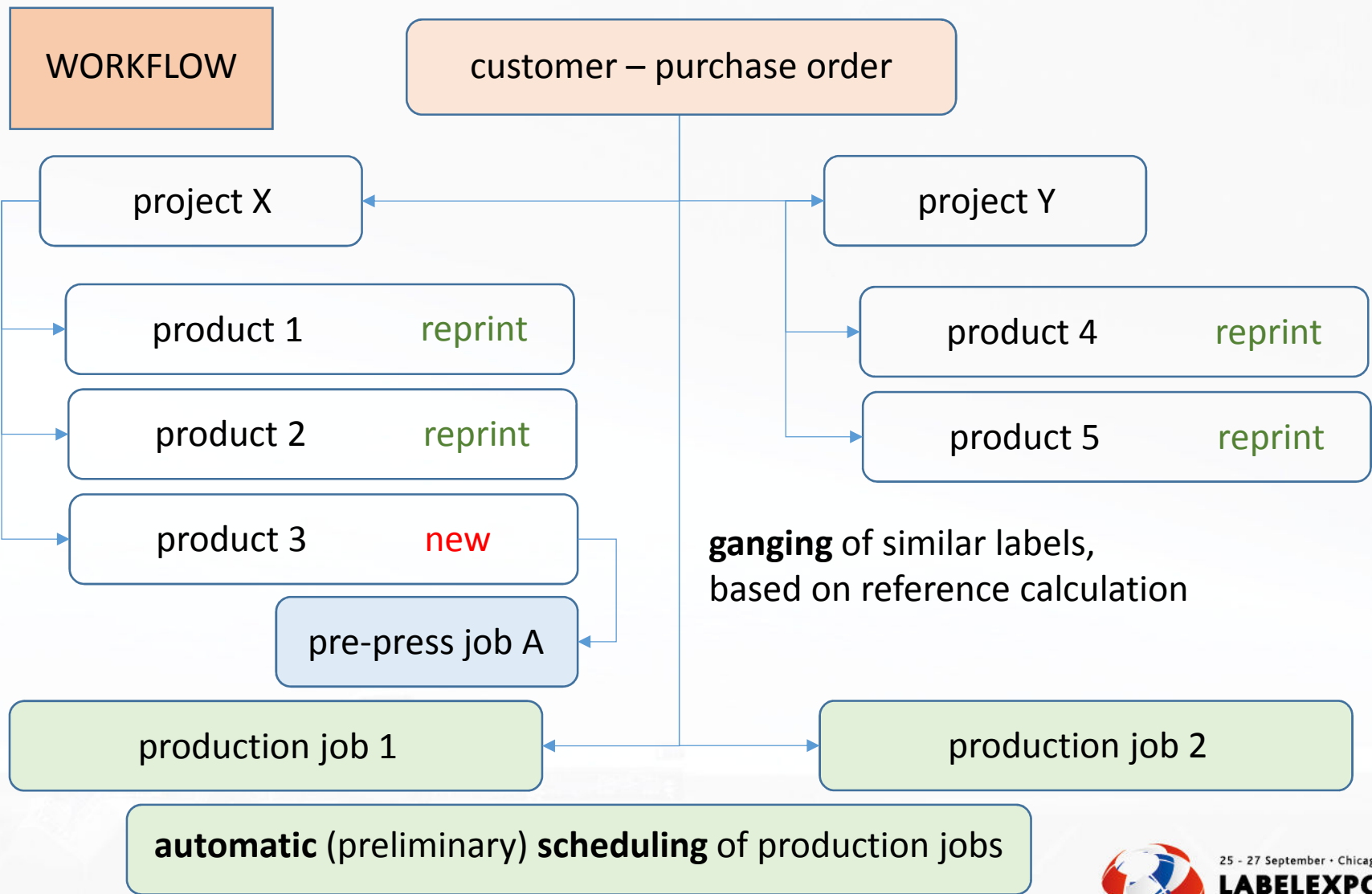
WORKFLOW



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Autoplan

**Press**

260 (3x4)

**Die**

260 (3x4)

**Image**

260 (3x4)

**Product**

Seigneur de Lauris  
Vacqueyras  
2009

**Overview of sales orders to produce**

Recalculate number of products in label print sheet

Type	Product ID	Description 1	Ordered quantity	Price (for.cur.)	Expected amount (for.c)
	100469				
	100469	80x85 Seigneur de Lauris - VACQUEYRAS 2009	7 000	20,13	140,91 E
			21 000		422,73 E

(Product ID = 100469)

**Determine signatures**

View: After finishing

Customer 100931 - Calculation 101516 | Customer 100931 - Calculation 101517 | Customer 100931 - Calculation 101518 | Customer 100931 - Calculation 101519 | Customer

ganging of similar labels,  
based on technical  
specifications

5280 EM280-5  
Still to be allocated

**Job 1**

7 000 pcs. 7 000 pcs. 7 000 pcs.

100469 80x85 Seigneur de Lauris - VACQUEYRAS  
Quantity: 7 000 pcs.  
To produce: 7 000 pcs.  
Image on lane: Turned 0°  
Color strategy: HPI-EPM-050

**Press**

260 (3x4)

**Die**

260 (3x4)

**Image**

260 (3x4)

**Product**

Seigneur de Lauris  
Vacqueyras  
2009

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			21 000		422,73 EUR

(Product ID = 100469)

**Determine signatures**

View: After finishing

Customer 100931 - Calculation 101516 | Customer 100931 - Calculation 101517 | Customer 100931 - Calculation 101518 | Customer 100931 - Calculation 101519 | Customer

5280 EM280-5  
Still to be allocated

**Job 1**

7 000 pcs. 7 000 pcs. 7 000 pcs.

100470 80x85 Seigneur de Lauris - GIGONDAS 2006  
Quantity: 7 000 pcs.  
To produce: 7 000 pcs.  
Image on lane: Turned 0°  
Color strategy: HP-EPM-050

**Press**

260 (3x4)

**Die**

260 (3x4)

**Image**

260 (3x4)

**Product**

Seigneur de Lauris  
Gigondas  
2006

**Overview of sales orders to produce**

Recalculate number of products in label print sheet

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	100469				
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(Product ID = 100469)

**Determine signatures**

View: After finishing

Customer 100931 - Calculation 101516 | Customer 100931 - Calculation 101517 | Customer 100931 - Calculation 101518 | Customer 100931 - Calculation 101519 | Customer



automatic preliminary scheduling production jobs

**A**

- one overall scheduling
- production job 1
- *new job 4*
- production job 2
- *new job 5*
- production job 3
- ...

**B**

**“real”** scheduling

- production job 1
- production job 2
- production job 3
- ...

**“shadow”** scheduling

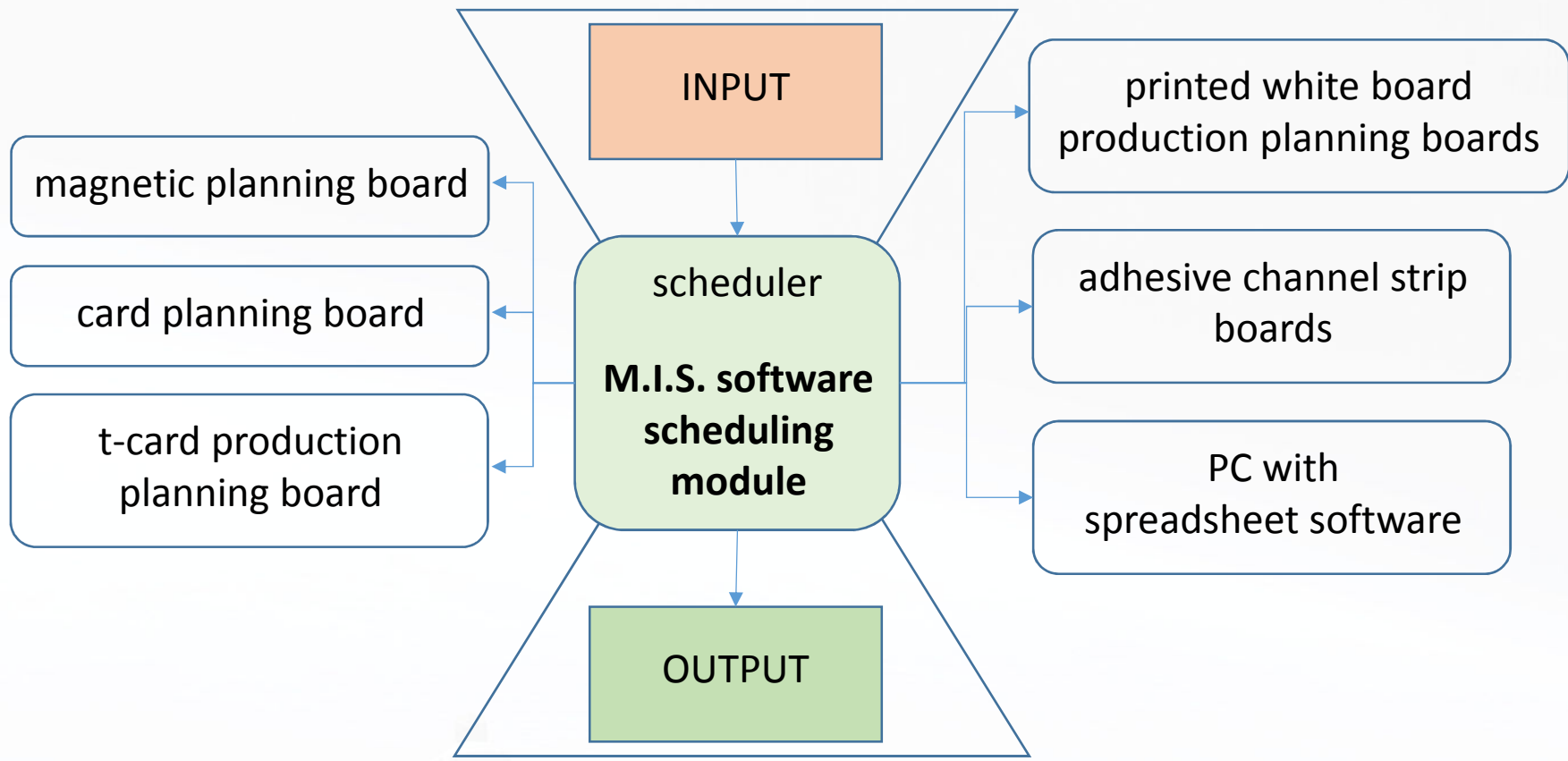
- *new job 4*
- *new job 5*
- ...

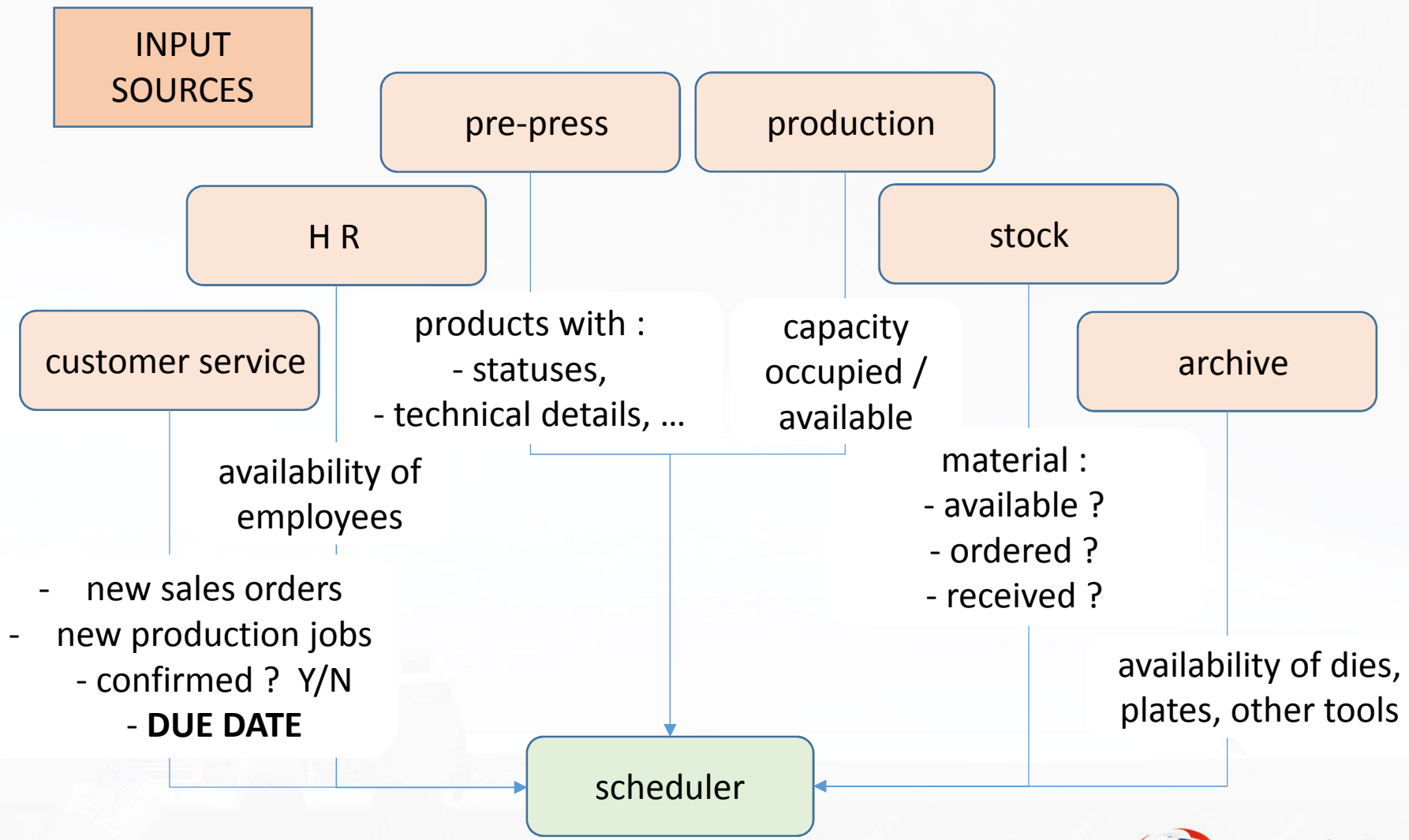


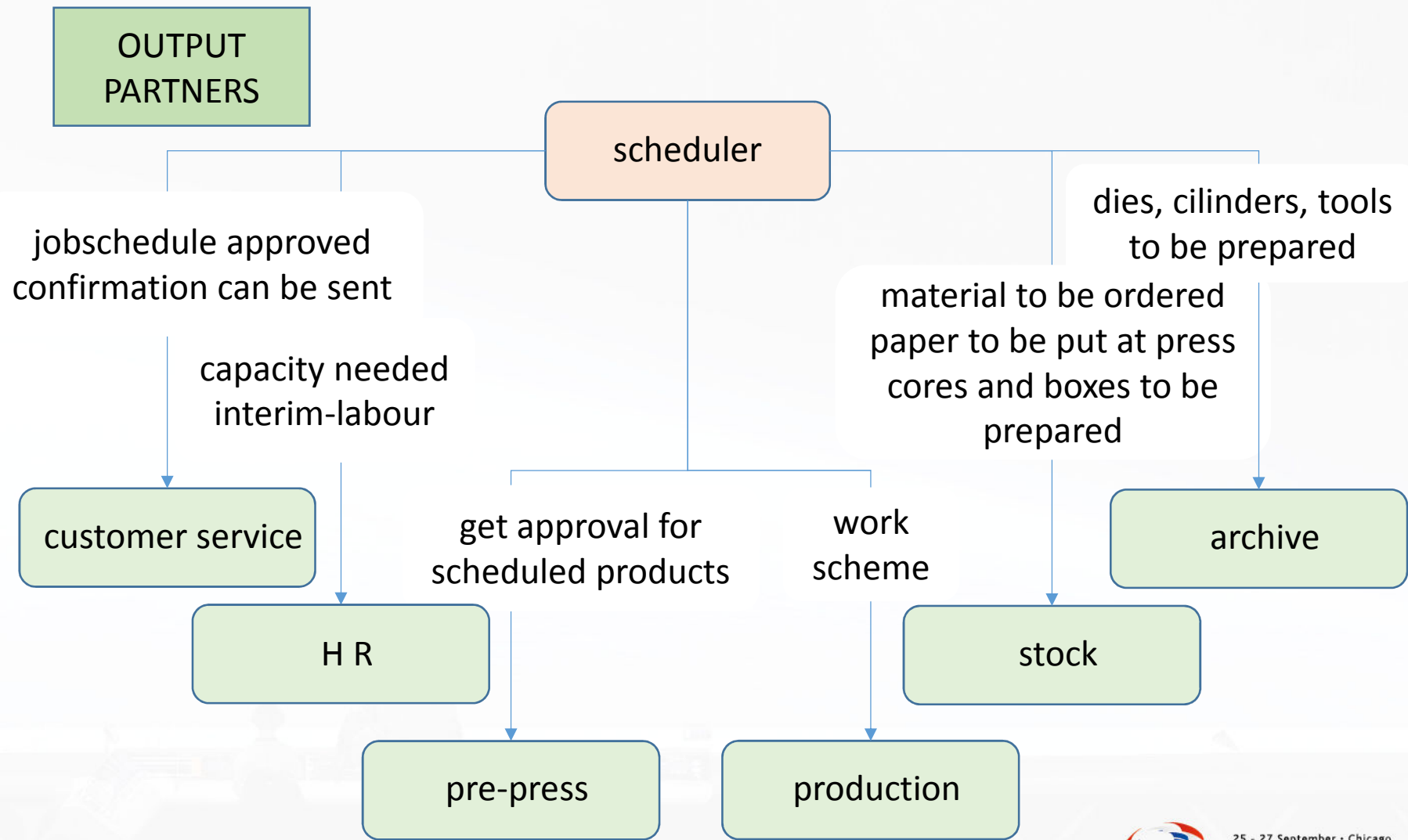
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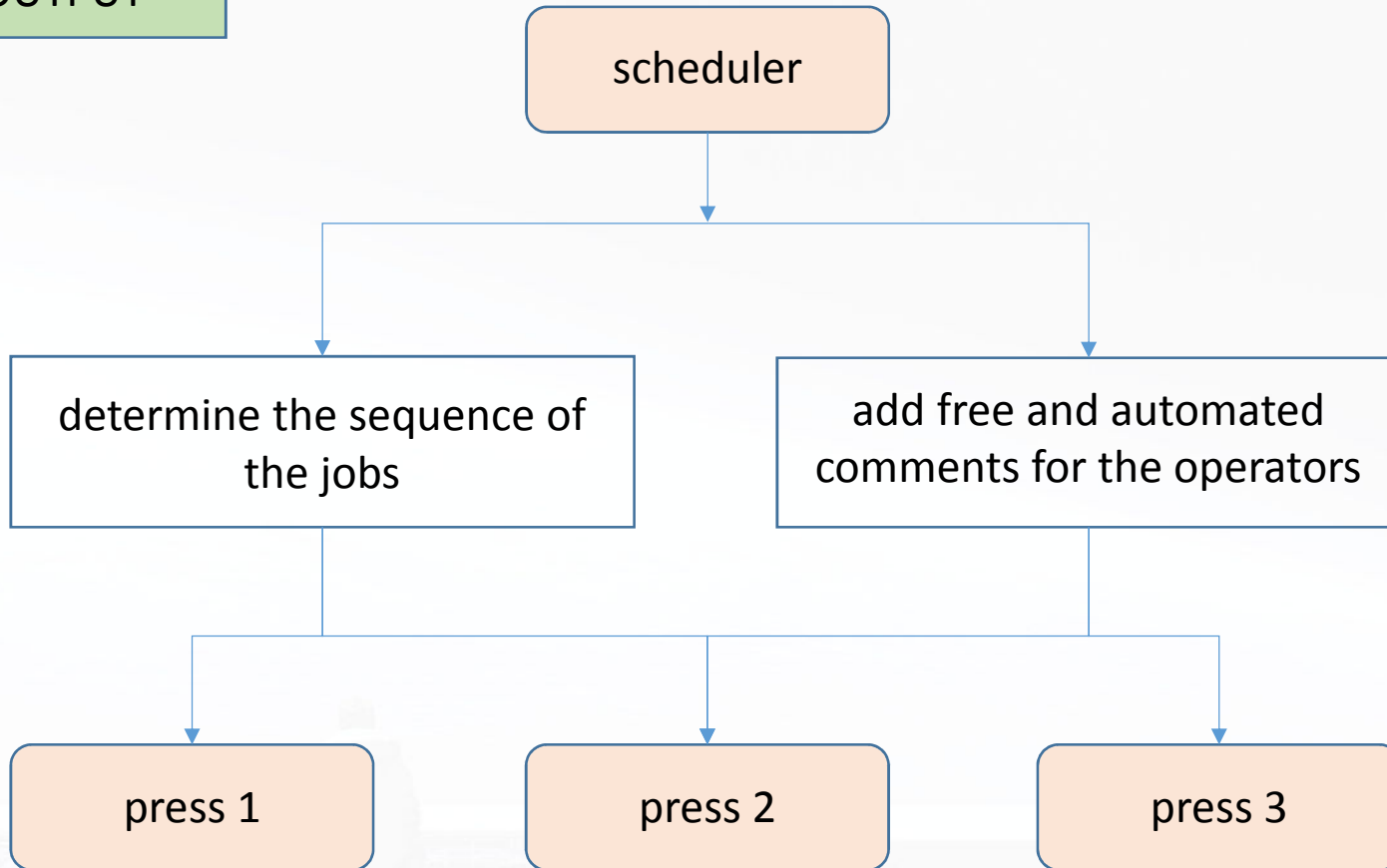
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FINAL  
OUTPUT



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FINAL  
OUTPUT

determine the sequence of the jobs :  
based on a lot of **information**

- the **due date(s)** of the purchase order
  - view on details of delivery/deliveries
- **quantities** of labels to be produced
- **technical details** of those labels (shape, sizes, ...)
- **material(s)** to be printed on, width of the paper, number of running meters needed
  - ev. decide to use other material during make-ready
- **colours** to be printed
- dies and other **tools** to be used
- **cilinders** to be used
- **finishings** to be added
- ...



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FINAL  
OUTPUT

determine the sequence of the jobs :  
based on a lot of **information**

Scheduling machine manipulation													
40_4													
Date	Start	Duration	Job ID	Customer	Shipment date	Job description	Quantity	Size	Section length (in)	Die ID	Substrate	Paper width	Net consumption
26/09/2017	12:16	24:56	025488	SOAPRAH	29/09/2017	200x55 Bath - Marseille - 22s	483 500	Irregular ( 200,000 x 55,000 )	18,13 in	001025	PE Gloss Wh.TC 85 /RP37 /HD 70 White	220	27 823,93 m
28/09/2017	5:14	3:58	025487	SOAPRAH	29/09/2017	200x45 South of France soap - 3s	90 000	Irregular ( 200,000 x 45,000 )	11,13 in	001024	Rafacoat /RH1 /HG65	220	4 238,62 m
29/09/2017	5:53	1:30	025501	SOAPRAH	03/10/2017	80x70 Bath - Paris	27 006	Rectangle ( 80,000 x 70,000 )	11,38 in	001082	Castgloss /RP51 /HG65	260	650,23 m
29/09/2017	9:07	6:53	025491	SOAPRAH	02/10/2017	100x120 soft soap - 9s	88 060	Rectangle ( 150,000 x 120,000 )	14,63 in	001028	PE Gloss Clear /RP37 /HD 70 White	320	5 452,01 m
29/09/2017	18:43	6:32	025492	SOAPRAH	03/10/2017	100x125 Provence/Marseille - 7s	61 600	Rectangle ( 140,000 x 125,000 )	15,13 in	001029	Rafacoat /RH1 /HG65	300	3 944,20 m

Scheduling machine manipulation												
Gross consumption	Comment	Comment	Material shortage	Date of 1st material shortage	Status	Confirmation ok	Production ok	Artwork	Reprint			
30 843,86 m	Black,Cyan,Magenta,Yellow		Material shortage	19/09/2017	In warehouse	Production confirmed	to approve	Proof OK	Unchanged			
4 747,01 m	345,165,362,374,375,Black				In warehouse	Production confirmed	to approve	Proof OK	Unchanged			
1 131,87 m	Black,Cyan,Magenta,Yellow				Ordered	Production confirmed	to approve	Proof OK	Unchanged			
6 367,74 m	83,213,2587,2985,369,410,Black,1		Material shortage	29/09/2017	In warehouse	Production confirmed	to approve	Proof OK	Unchanged			
4 847,19 m	82,192,201,276,279,288,3415,35				In warehouse	Production confirmed	to approve	Proof OK	Unchanged			





FINAL  
OUTPUT

determine the sequence of the jobs :  
focus on each **individual job**

General							Products status				Tool status				
Problem	Date	Start	Duration	Job ID	Customer key	Job description	Shipment date	Comment	To	Artwork	Reprint	Material shortage	Date of 1st m	Paper status	Paper comment
Scheduling machine ID : 5_GAL340_4 (5 record(s))															
	di 19/09/2017	15:09	24:56	025488	SOAPRAH	200x55 Bath - Marseille - 22s	29/09/2017			●● Proof OK	●● Unchanged	●● Material shortage	19/09/2017		
	do 21/09/2017	8:05	3:58	025487	SOAPRAH	200x45 South of France soap - 3s	29/09/2017			●● Proof OK	●● Unchanged				
	do 21/09/2017	12:03	1:30	025501	SOAPRAH	80x70 Bath - Paris	03/10/2017			●● Proof OK	●● Unchanged				
	do 21/09/2017	13:33	6:53	025491	SOAPRAH	150x120 soft soap - 9s	02/10/2017			●● Proof OK	●● Unchanged	●● Material shortage	21/09/2017		
	do 21/09/2017	20:26	6:32	025492	SOAPRAH	140x125 Provence/Marseille - 7s	03/10/2017			●● Proof OK	●● Unchanged				

(Scheduling machine ID = 5\_GAL340\_4) Customize...

Product ID	Version description	Quantity	St	Unit	Color				Rewind	Status		
					Cyan	Black	Magenta	Yellow		Artwork	Reprint	Administrat
100608	80x70 Bath - Paris	7 000	001	ex.	●	●	●	●	26	●● Proof C	●● Unchar	●● -
100609	80x70 Bath - Bruges	8 000	002	ex.	●	●	●	●		●● Proof C	●● Unchar	●● -
100610	80x70 Bath - Gouda	8 000	003	ex.	●	●	●	●		●● Proof C	●● Unchar	●● -
100611	80x70 Bath - Lille	4 000	004	ex.	●	●	●	●		●● Proof C	●● Unchar	●● -

**Stock**

To deliver	7 000
In quarantine	0
Available	-7 000
In production	0
Purchase	0
Final stock	0

Rosmary - Lavender

Graph | Versions | Materials | Deliveries | Tools | Chronology



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FINAL  
OUTPUT

determine the sequence of the jobs :  
focus on each **individual job**

General										Products status			Tool status		
Problem	Date	Start	Duration	Job ID	Customer ke	Job description	Shipment date	Comment	Tox	Artwork	Reprint	Material shortage	Date of 1st m	Paper status	Paper comment
Scheduling machine ID : 5_GAL340_4 (5 record(s))															
di	19/09/2017	15:09	24:56	025488	SOAPRAH	200x55 Bath - Marseille - 22s	29/09/2017		●●	Proof OK	●	Unchanged	●	Material shortage	19/09/2017
do	21/09/2017	8:05	3:58	025487	SOAPRAH	200x45 South of France soap - 3s	29/09/2017		●●	Proof OK	●	Unchanged			
do	21/09/2017	12:03	1:30	025501	SOAPRAH	80x70 Bath - Paris	03/10/2017		●●	Proof OK	●	Unchanged			
do	21/09/2017	13:33	6:53	025491	SOAPRAH	150x120 soft soap - 9s	02/10/2017		●●	Proof OK	●	Unchanged	●	Material shortage	21/09/2017
do	21/09/2017	20:26	6:32	025492	SOAPRAH	140x125 Provence/Marseille - 7s	03/10/2017		●●	Proof OK	●	Unchanged			

Material description	Quantity	Type	Date	Purcha	Comment	Stat	Material ID
Box - 250 x 250 x 250 mm	41,00	Reservation	21/09/2017		Delivery period: 7 days 0:00		100657
PE Gloss Clear/RP37/H/D 70 White/ 320 mm	6 367,74	Reservation	21/09/2017		Delivery period: 2 days 0:00		100692

Stock	99 999
Reserved	566
In quarantine	0
Available	99 433
To be delivered	0
Final stock	99 433

Graph | Version | **Materials** | deliveries | Tools | Chronology



FINAL  
OUTPUT

determine the sequence of the jobs :  
focus on each **individual job**

General								Products status			Tool status				
Prober	Date	Start	Duration	Job ID	Customer ke	Job description	Shipment date	Comment	Tox	Artwork	Reprint	Material shortage	Date of 1st m	Paper status	Paper comment
Scheduling machine ID : 5_GAL340_4 (5 record(s))															
	di 19/09/2017	15:09	24:56	025488	SOAPRAH	200x55 Bath - Marseille - 22s	29/09/2017		●	●	●	●	●	●	●
	do 21/09/2017	8:05	3:58	025487	SOAPRAH	200x45 South of France soap - 3s	29/09/2017		●	●	●	●	●	●	●
	do 21/09/2017	12:03	1:30	025501	SOAPRAH	80x70 Bath - Paris	03/10/2017		●	●	●	●	●	●	●
	do 21/09/2017	13:33	6:53	025491	SOAPRAH	150x120 soft soap - 9s	02/10/2017		●	●	●	●	●	●	●
	do 21/09/2017	20:26	6:32	025492	SOAPRAH	140x125 Provence/Marseille - 7s	03/10/2017		●	●	●	●	●	●	●

Deliveries							
Sales order			Quantities		Shipment		Status
Product ID	Order	Description	Type	Order	Expected shipment date	Production ok	Confirmation ok
100608	004708	80x70 Bath - Paris	🛒	3.50	03/10/2017	● to approve	● Production confirmed
100609	004708	80x70 Bath - Bruges	🛒	4.00	03/10/2017	● to approve	● Production confirmed
100610	004708	80x70 Bath - Gouda	🛒	4.00	03/10/2017	● to approve	● Production confirmed
100611	004708	80x70 Bath - Lille	🛒	2.00	03/10/2017	● to approve	● Production confirmed
100608	004719	80x70 Bath - Paris	🛒	3.50	05/10/2017	● to approve	● Production confirmed
100609	004719	80x70 Bath - Bruges	🛒	4.00	05/10/2017	● to approve	● Production confirmed
100610	004719	80x70 Bath - Gouda	🛒	4.00	05/10/2017	● to approve	● Production confirmed
100611	004719	80x70 Bath - Lille	🛒	2.00	05/10/2017	● to approve	● Production confirmed



FINAL  
OUTPUT

determine the sequence of the jobs :  
focus on each **individual job**

General								Products status				Tool status			
Proble	Date	Start	Duration	Job ID	Customer ke	Job description	Shipment date	Comment	Tox	Artwork	Reprint	Material shortage	Date of 1st m	Paper status	Paper comment
Scheduling machine ID : 5_GAL340_4 (5 record(s))															
di	19/09/2017	15:09	24:56	025488	SOAPRAH	200x55 Bath - Marseille - 22s	29/09/2017			● Proof OK	● Unchanged	● Material shortage	19/09/2017		
do	21/09/2017	8:05	3:58	025487	SOAPRAH	200x45 South of France soap - 3s	29/09/2017			● Proof OK	● Unchanged				
do	21/09/2017	12:03	1:30	025501	SOAPRAH	80x70 Bath - Paris	03/10/2017			● Proof OK	● Unchanged				
do	21/09/2017	13:33	6:53	025491	SOAPRAH	150x120 soft soap - 9s	02/10/2017			● Proof OK	● Unchanged	● Material shortage	21/09/2017		
do	21/09/2017	20:26	6:32	025492	SOAPRAH	140x125 Provence,Marseille - 7s	03/10/2017			● Proof OK	● Unchanged				

General							Status
ID	Keyword	Description	Type	Stock location ID	Date	PO comment	Status
Click here to define a filter							
00108	-	60X70	Requirement		21/09/2017		Ordered
00109	PREEG	80x70 Bath Paris de luxe	Requirement		21/09/2017		Ordered



FINAL  
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determine the sequence of the jobs :  
focus on each **individual job**

General								Products status				Tool status			
Proble#	Date	Start	Duration	Job ID	Customer ke	Job description	Shipment date	Comment	Tox	Artwork	Reprint	Material shortage	Date of 1st m	Paper status	Paper comment
Scheduling machine ID : 5_GAL340_4 (5 record(s))															
	di 19/09/2017	15:09	24:56	025488	SOAPRAH	200x55 Bath - Marseille - 22s	29/09/2017		●●	Proof OK	●●	Material shortage	19/09/2017		
	do 21/09/2017	8:05	3:58	025487	SOAPRAH	200x45 South of France soap - 3s	29/09/2017		●●	Proof OK	●●	Material shortage			
	do 21/09/2017	12:03	1:30	025501	SOAPRAH	80x70 Bath - Paris	03/10/2017		●●	Proof OK	●●	Material shortage			
	do 21/09/2017	13:33	6:53	025491	SOAPRAH	150x120 soft soap - 9s	02/10/2017		●●	Proof OK	●●	Material shortage	21/09/2017		
	do 21/09/2017	20:26	6:32	025492	SOAPRAH	140x125 Provence/Marseille - 7s	03/10/2017		●●	Proof OK	●●	Material shortage			

Date	Kind	Quantity	Duration	Description	Comment	Comment
di 19/09/2017 (38)	Order date	0		Order date		
wo 20/09/2017 (38)	Work step	4	0:01	4_CLICHES	Black,Cyan,Magenta,Yellow	Gallus 340 4 V op 29/09/2017 om 5:53
do 21/09/2017 (38)	Reservation	1 132		100561 label	label	
do 21/09/2017 (38)	Work step	27 006	1:30	5_GAL340_4	Black,Cyan,Magenta,Yellow	
do 21/09/2017 (38)	Work step	27 006	2:26	73TYPO		
ma 25/09/2017 (39)	Work step	27 006	0:11	7_REWINDING	ECS340-7	
di 03/10/2017 (40)	Sales order	26 000		80x70 Bath - Paris/80x70 Bath - Bruges/80x70 Bath - Gouda	Champs Elysées 1 , 75007 Paris (FR)	
do 05/10/2017 (40)	Sales order	13 500		80x70 Bath - Paris/80x70 Bath - Bruges/80x70 Bath - Gouda	Champs Elysées 1 , 75007 Paris (FR)	





FINAL  
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determine the sequence of the jobs :  
using **TRAFFIC LIGHTS**

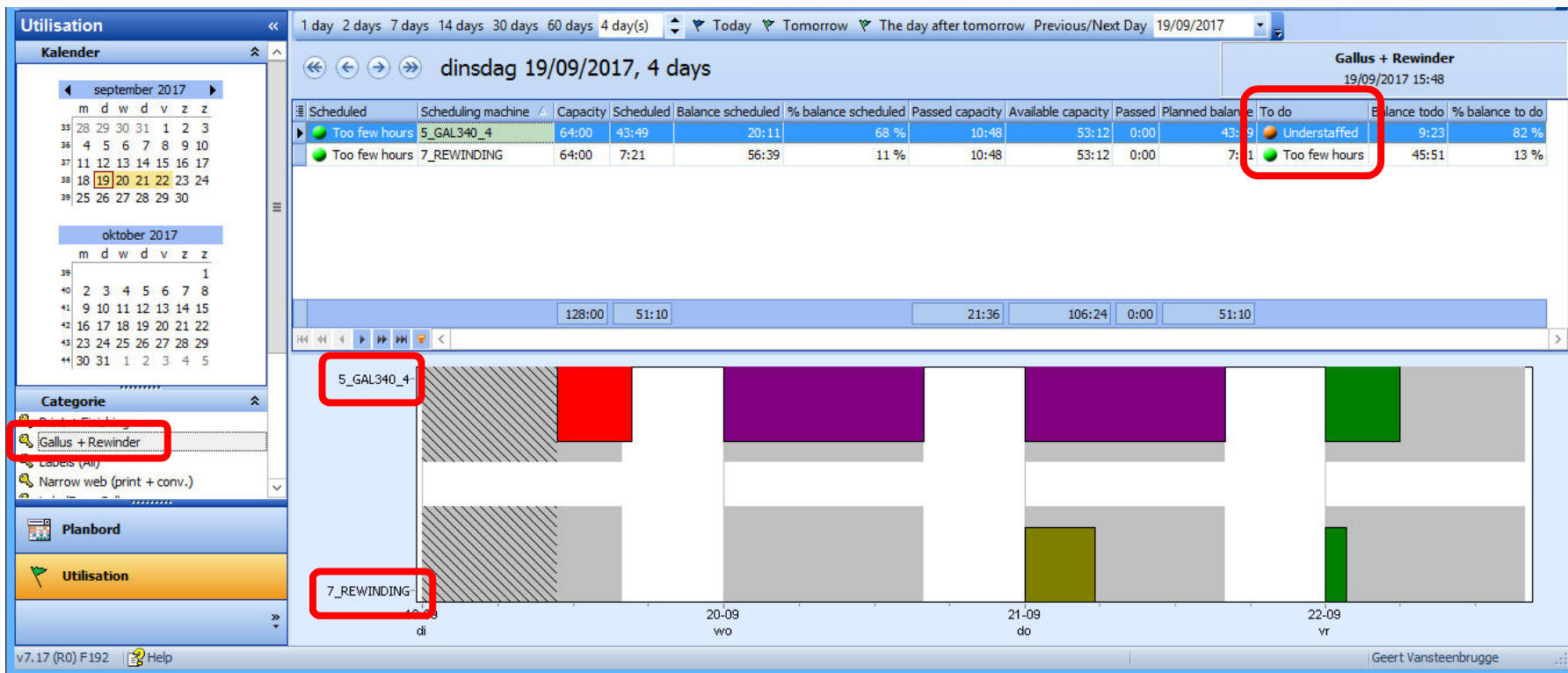
- **capacity** of the presses and finishing machines
  - default capacity, modifiable per machine, per week, per day
- **order confirmation** already sent to customer ?
- **delivery date** already confirmed to customer ?
- pre-press status of product(s) – (all) **approved** ?
- availability (and more information) of **material** ?  
in stock ? ordered ? to be delivered on time ?
- availability of diecut and eventually other **tools**
  - availability of diecut at the scheduled time
- **free statuses** of sales orders, production jobs, products, tools, ...
  - special tool, unusual material, reliable customer
  - long delivery time for special material
- ...



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determine the sequence of the jobs :  
using **TRAFFIC LIGHTS**



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determine the sequence of the jobs :  
using **TRAFFIC LIGHTS**

Scheduling machines capacity per week

Select the lines and press the button to modify

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday								
Scheduling machine	Capacity	Sta / Dur	Sta / Dur	Sta / Dur	Sta / Dur	Sta / Dur	Sta / Dur								
Click here to define a filter															
Year : 2017															
Week : 38															
4_CLICHES	38:00	9:00	8:00	9:00	8:00	9:00	8:00	9:00	8:00	9:00	6:00	0:00	0:00	0:00	0:00
5_EQUIOS	38:00	9:00	8:00	9:00	8:00	9:00	8:00	9:00	8:00	9:00	6:00	0:00	0:00	0:00	0:00
5_GAL280_5	38:00	9:00	8:00	9:00	8:00	9:00	8:00	9:00	8:00	9:00	6:00	0:00	0:00	0:00	0:00
5_GAL340_4	80:00	5:00	16:00	5:00	16:00	5:00	16:00	5:00	16:00	5:00	16:00	0:00	0:00	0:00	0:00
5_HP_20000	38:00	9:00	8:00	9:00	8:00	9:00	8:00	9:00	8:00	9:00	6:00	0:00	0:00	0:00	0:00
5_HPI_4500	38:00	9:00	8:00	9:00	8:00	9:00	8:00	9:00	8:00	9:00	6:00	0:00	0:00	0:00	0:00
5_HPI_6000	38:00	9:00	8:00	9:00	8:00	9:00	8:00	9:00	8:00	9:00	6:00	0:00	0:00	0:00	0:00
5_JAYHAWK	38:00	9:00	8:00	9:00	8:00	9:00	8:00	9:00	8:00	9:00	6:00	0:00	0:00	0:00	0:00
5_NIL300_7	80:00	5:00	16:00	5:00	16:00	5:00	16:00	5:00	16:00	5:00	16:00	0:00	0:00	0:00	0:00
5_XEIKON3300	38:00	9:00	8:00	9:00	8:00	9:00	8:00	9:00	8:00	9:00	6:00	0:00	0:00	0:00	0:00
7_DIGICON	40:00	8:00	8:00	8:00	8:00	8:00	8:00	8:00	8:00	8:00	8:00	0:00	0:00	0:00	0:00
7_REWINDING	80:00	5:00	16:00	5:00	16:00	5:00	16:00	5:00	16:00	5:00	16:00	0:00	0:00	0:00	0:00



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FINAL  
OUTPUT

determine the sequence of the jobs :  
using **TRAFFIC LIGHTS**

s To	Products status		Tool status		Job status
	Artwork	Reprint	Material shortage	Status	JobScheduled
●	● Proof sent	● New	● Material shortage	● In warehouse	● Scheduling confirmed
●	● Proof OK	● Unchanged		● In warehouse	● Scheduling confirmed
●	● Proof OK	● Unchanged		● Ordered	● Scheduling confirmed
●	● Proof OK	● Unchanged	● Material shortage	● In warehouse	● Scheduling confirmed
●	● Proof rejected	● Unchanged		● To be repaired	● Scheduling confirmed
●	● Proof sent	● New	● Material shortage	● In warehouse	● Scheduling confirmed
●	● Proof OK	● Unchanged		● In warehouse	● Scheduling confirmed
●	● Proof OK	● Unchanged	● Material shortage	● In warehouse	● Scheduling confirmed
●	● Proof rejected	● Unchanged		● To be repaired	● Scheduling confirmed
●	● Proof OK	● Unchanged		● Ordered	● Scheduling confirmed



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FINAL  
OUTPUT

determine the sequence of the jobs :  
using **software tools**

- **scheduling methods**
  - normal jobs, rush orders – different waiting times
- **non-calculated milestones**
  - pre-press work, plates ready, ...
- **scheduling categories**
  - show machines in limited groups for better overview
  - easy switch from one to another category
  - one global overview for all machines
- recalculate **reservations** when modifying original scheduling
- pre-press status of product(s) – (all) **approved** ?
- availability (and more information) of **material** ?  
in stock ? ordered ? to be delivered on time ? future shortages ?
- availability of diecut and eventually other **tools**
  - availability of diecut at the scheduled time
- free statuses of sales orders, production jobs, products, tools, ...
- ...



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OUTPUT

determine the sequence of the jobs :  
using **software tools**

Schedule job

Job: 025488 SOAPRAH 200x55 Bath - Marseille - 22s  
Status: Scheduling  
3 work steps to be done.  
0 work steps are busy.  
0 work steps are already checked off.

**Define which work steps will be created:**  
Scheduling work steps are created via the job calculation data for prepress, press sheets and general finishing. You can add extra work steps via scheduling models.

Scheduling model: LABEL1 Reimpression (without changes)

Description	Scheduling mac...	Dur...	Schedule	Comment	Comment	Comment
[-] Calculation			<input checked="" type="checkbox"/>			
[-] Printing			<input checked="" type="checkbox"/>			
[-] 107047label			<input checked="" type="checkbox"/>			
[-] CTP	4_CLICHES	0:01	<input checked="" type="checkbox"/>			
[-] Printing	5_GAL340_4	24:56	<input checked="" type="checkbox"/>			
[-] Rewind (Rotoflex)	7_REWINDING	4:48	<input checked="" type="checkbox"/>			

**Define what should be done with existing scheduling:**  
 Nothing  
 Rearrange  
 The unfinished work steps will be deleted.

**Define the scheduling method:**  
Scheduling method: 002 Rush Order

**Update reservations automatically**

<< Back (F12) Next (F9) >> Cancel

**Categorie**

- Print + Finishing
- Gallus + Rewinder
- Labels (All)
- Narrow web (print + conv.)
- Linoprint
- Finishing
- Codimag
- Narrow web (print + conv.) - all



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determine the sequence of the jobs :  
using **software tools**

General							
Probleur	Date	Start	Duration	Urgency	Job ID	Customer keyw	Job description
[-] Scheduling machine ID : 5_GAL340_4 (5 record(s))							
	di 19/09/2017	15:09	24:56	Urgent	25488	SOAPRAH	200x55 Bath - Marseille - 22s
	do 21/09/2017	8:05	3:58	Normal	25487	SOAPRAH	200x45 South of France soap - 3s
	do 21/09/2017	12:03	1:30	Floating	25501	SOAPRAH	80x70 Bath - Paris
	do 21/09/2017	13:33	6:53	Normal	25491	SOAPRAH	150x120 soft soap - 9s
	do 21/09/2017	20:26	6:32	Normal	25492	SOAPRAH	140x125 Provence/Marseille - 7s
[-] Scheduling machine ID : 7_REWINDING (5 record(s))							
	do 21/09/2017	10:05	4:48	Urgent	25488	SOAPRAH	200x55 Bath - Marseille - 22s
	do 21/09/2017	14:03	0:48	Normal	25487	SOAPRAH	200x45 South of France soap - 3s
	vr 22/09/2017	6:26	1:00	Normal	25491	SOAPRAH	150x120 soft soap - 9s
	vr 22/09/2017	12:58	0:45	Normal	25492	SOAPRAH	140x125 Provence/Marseille - 7s
	ma 25/09/2017	9:59	0:11	Floating	25501	SOAPRAH	80x70 Bath - Paris



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FINAL  
OUTPUT

determine the sequence of the jobs :  
**optimize scheduling**

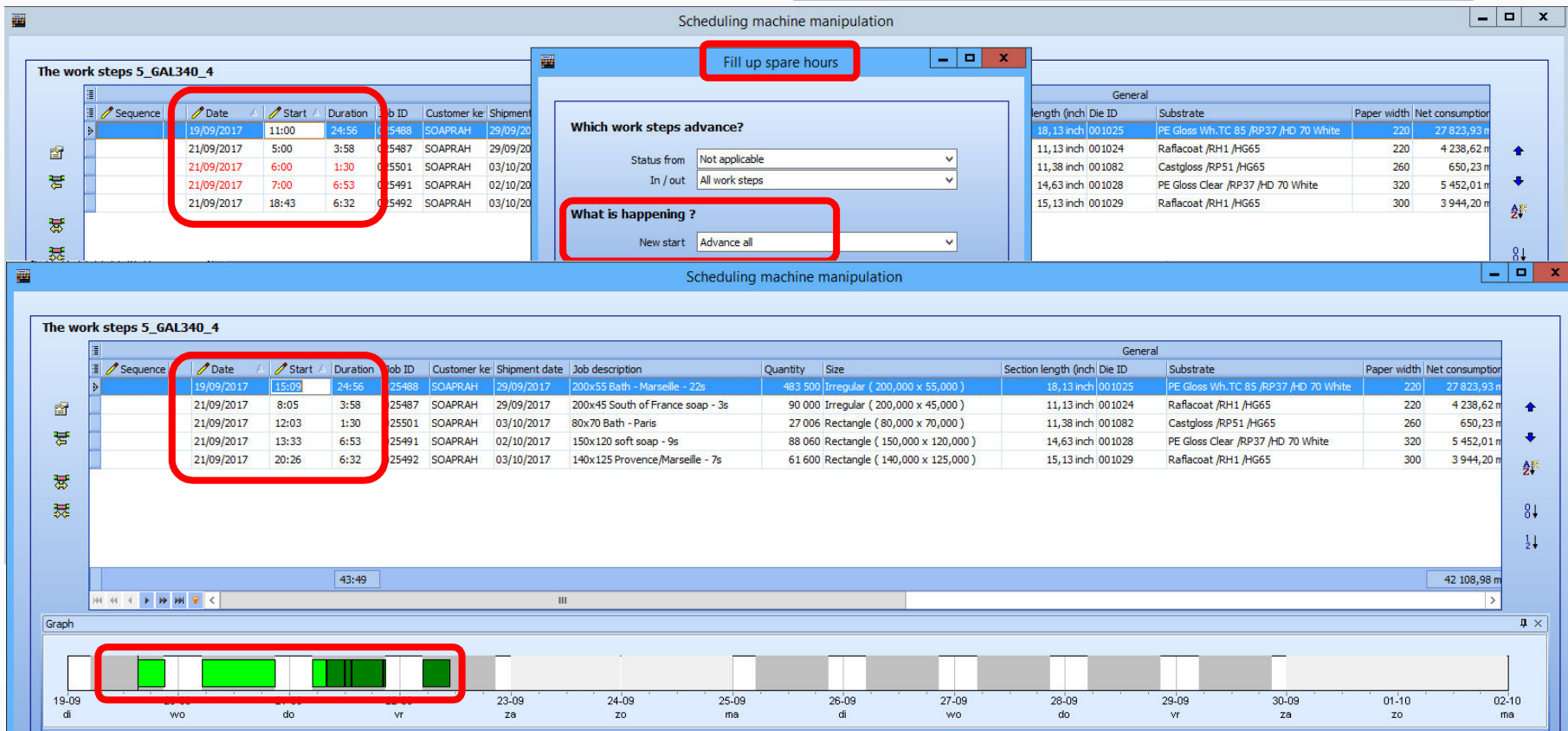
- **input zone** with jobs to be handled and scheduled or mix of all jobs (already scheduled are still to be scheduled)
- **simulation** of determining the job sequences to be cancelled and restarted or to be confirmed (tool offered by software)
- **final scheduling**, to be fixed for 1, 2, more day(s)
- **information** about :
  - calculated duration
  - quantities to be produced
  - technical details of the labels (size, colours, ...)
  - expected/confirmed delivery date
  - job and customer
  - ...



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FINAL  
OUTPUT

determine the sequence of the jobs :  
optimize scheduling



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FINAL  
OUTPUT

determine the sequence of the jobs :  
**emergency situations**

- **emergency** situations :
  - machine breakdown,
  - employee illness,
  - last moment changes,
  - temporary shortage of material,
  - important customer of company owner, ...
- **split** production in 2 or more parts – deliver a minimum quantity
- look for **alternatives** (press, paper, ...)
- **recalculate** the production, using variant calculations of the basic one
- take into account :
  - other make-ready times, other press speed, other paper width
  - extra production steps (turret inline rewinder > offline rewinding)
  - so : re-evaluate stock situation
  - so : other die, as far as available
  - ...



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FINAL  
OUTPUT

determine the sequence of the jobs :  
**emergency situations**

Schedule job

Job: 025488 SOAPRAH 200x55 Bath - Marseille - 22s  
Status:   
Scheduling: 3 work steps to be done.  
0 work steps are busy.  
0 work steps are already checked off.

**Define which work steps will be created:**  
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Scheduling model: LABEL1 Reimpression (without changes)

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Calculation			<input checked="" type="checkbox"/>			
Printing			<input checked="" type="checkbox"/>			
107047 label			<input checked="" type="checkbox"/>			
CTP	4_CLICHES	0:01	<input checked="" type="checkbox"/>			
Printing	5_GAL340_4	24:56	<input checked="" type="checkbox"/>			
Rewind (Rotoflex)	7_REWINDING	8:02	<input checked="" type="checkbox"/>			

**Define what should be done with existing scheduling:**  
 Nothing  
 Rearrange  
 The unfinished work steps will be deleted.

**Define the scheduling method:**  
Scheduling method: 001 Standard

**Update reservations automatically**

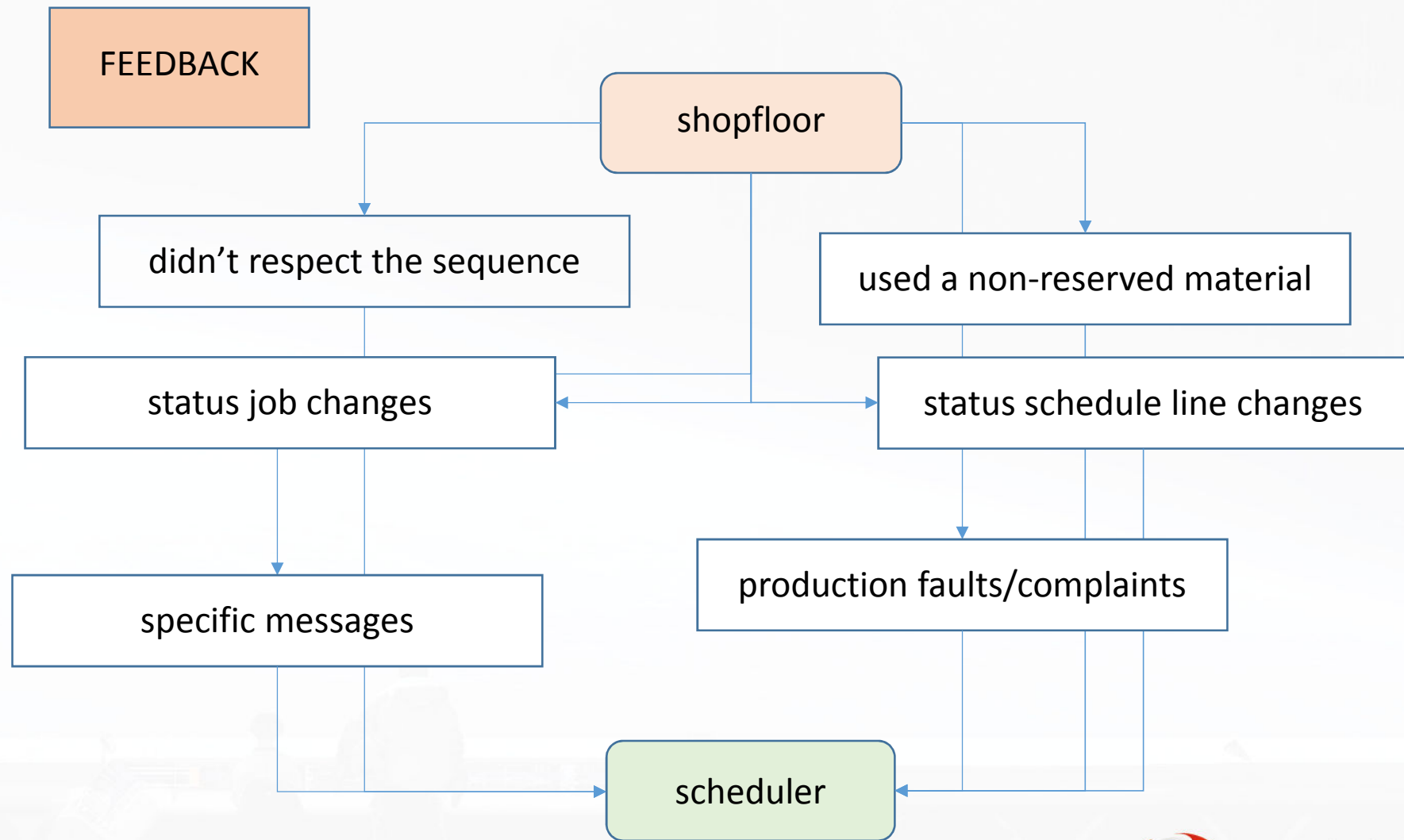
<< Back (F12)    Next (F9) >>    Cancel

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## CONTINUOUS EVALUATION

- occupation reports
- production reports
  - real average setup-times
  - real average machine speeds
  - non-productive times
  - ...
- label waste reports

resulting in :

- update of calculation parameters so more accurate estimating
- general improvement of production efficiency



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Thank you for your attention.



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