

Kiwiplan - Supplying Product Designs

This section describes how to set up one product design to be supplied by another. This scenario is needed when goods are produced for stock, but must be erected/finished at a future unknown date. This means we need a means of tracking stock of the unfinished product and finished product.

ESP and MAP provide a solution for this using two stock PD's. The first one (unfinished) is converted and booked into store. When the last conversion process is required, a topup of the second (finished) PD is placed. The feedback of this topup order will automatically decrease the stock of the first PD.

Parameters, Store and Machine Setup

Machine Setup

For this to work there are two machines that must be set up correctly. There must be a Supply From Stock machine. This machine should have the Supply operation 17, and be set to auto-feedback, triggered by feedback of the next step.

```

pcsmenu:AJ                               Maintain Machine Data                               30/APR 04:31
=====
Machine Number      1121                               Maintained  30.04.07
( 1) Machine Name   Supply from Flat Stock
( 2) Machine's Group 1  WPA
( 3) Plant Location  1  Plant 1           Scheduled Bottleneck Seq 0
( 4) Mch Location   ( 9) Max Num Out           99
( 5) Schedule (Y/N/Low pri) Y (10) Running cost per hr  0,00
( 6) Auto Fdbk by Next Step -2 Constraints  ----Min---  ----Max---
( 7) Identical Machine Len Wid Len Wid
(11) Sheet size 1 x 1 32767 x32767
( 8) Possible Operations (12) Quantity 1 9.999.999
17 Supply board (13) Max gap in Frozen lineup
(14) Maximum number
(15) Min.Distance to edge
(16) Min.Distance between

(A)dd, (C)hange, (D)elete, (L)ist, (N)ext, (T)oggle, (O)ps, > E....

```

The second machine is the conversion machine that finishes the product. This machine should have standard feedback, the operations that are required to finish the product, and be attached to the store and location where the unfinished product will be stored.

```

pcsmenu:AJ                               Maintain Machine Data                               30/APR 05:22
=====
Machine Number      6112                               Maintained  30.04.07
( 1) Machine Name   Flat box erector
( 2) Machine's Group 6  General Machines
( 3) Plant Location  1  Plant 1           Scheduled Bottleneck Seq 0
( 4) Mch Location   ( 9) Max Num Out           1
( 5) Schedule (Y/N/Low pri) Y (10) Running cost per hr  0,00
( 6) Work Stations/Auto Fdbk 0 Constraints  ----Min---  ----Max---
( 7) Identical Machine Len Wid Len Wid
(11) Sheet size 440 x 350 2340 x2100
( 8) Possible Operations (12) Quantity 1 9.999.999
5 Join (13) Max gap in Frozen lineup
(14) Maximum number
(15) Min.Distance to edge
(16) Min.Distance between

(A)dd, (C)hange, (D)elete, (L)ist, (N)ext, (T)oggle, (O)ps, > E....

```

```

pcsmenu:AJ                               Maintain Machine Data                               30/APR 05:22
=====
Machine Number      6112                               Maintained  30.04.07
Machine Name        Flat box erector
Machine's Group     6  General Machines                               Schedule      Max
( 1) Run Rate Unit   0  Bogen                                             Min  Max  Request
( 2) M/c Hours per Hour  1                               (15) Hours    0  0  0
( 3) Share Feedback Terminal N                               (16) ----Tappi Man-Hours per----
( 4) Simplified Feedback  N                               setting 1000 sqm 1000 uns
( 5) Feedback Qty Fed In  N                               0.000  0.000  0.000
( 6) Machines Status Display N                               Sheet Rotation Allowed
                               Wait  Buffer  (17) Entry  N  (18) Exit  N
( 7) Pre-Machine Buffer Time
( 8) Post-Machine Buffer Time                               (19) WIP/Shpr Label Ptr No  0  0
( 9) History Cut-off Date                               WIP Label Type
Performance Rates  TAPPI      Optimum  Average  (20) Into_WIP
(10) Set Up Time (minutes)  13      13      (21) Into_FGS
(11) Set-up Waste (boards)  2        2
(12) Run Speed (units/hour) 2100     2100
(13) Run Waste (per 1000)  2        2        (22) FGS      20  A1
(14) Crew Size (people)    2        2        (23) Entry   0
                               (24) WIP     0
(A)dd, (C)hange, (D)elete, (L)ist, (N)ext, (T)oggle, > E....

```

Store Setup

The store location where the unfinished product is stored must have 'Units from WIP label to be Available/Stock' set to Y.

```

invmenu:B                               Maintain Location Information                               30/APR 05:28
=====
Store      20                               Description  20 On-site FG
Location   A1                               ( 1) Description  Flat box storage
-----
( 2) Default Type  FG  WP
( 3) Quarantine location  N
( 4) Maximum number of items in location  99999999
Current number of items in location  59
( 5) 0-Enter,1-Store,2-Exit Unit Loads,3-Pre-Load  1
( 6) Units from WIP label to be Available/Stock  Y
( 7) RSS: 0-Storage, 1-Usage, 2-Exit  0
( 8) Default Butt Store/Location/Printer
( 9) Corrugator Number  0
In Progress  0
Date of Last Stocktake
(A)dd, (C)hange, (D)elete, (R)ename, (Q)uery, (N)ext, (P)revious, > E....

```

Parameters

Two parameters need to be set in MAP:

- PCS FB 57 “Auto Board Xfers for Hort Jobs” = Y
- GEN PL 33 “FGS Supply Machine for Hort.” = machine number for Supply From Stock machine

Product Design Setup

Unfinished Product Design

This PD must have a stock line for the store that was specified on the finishing machine described previously in this section.

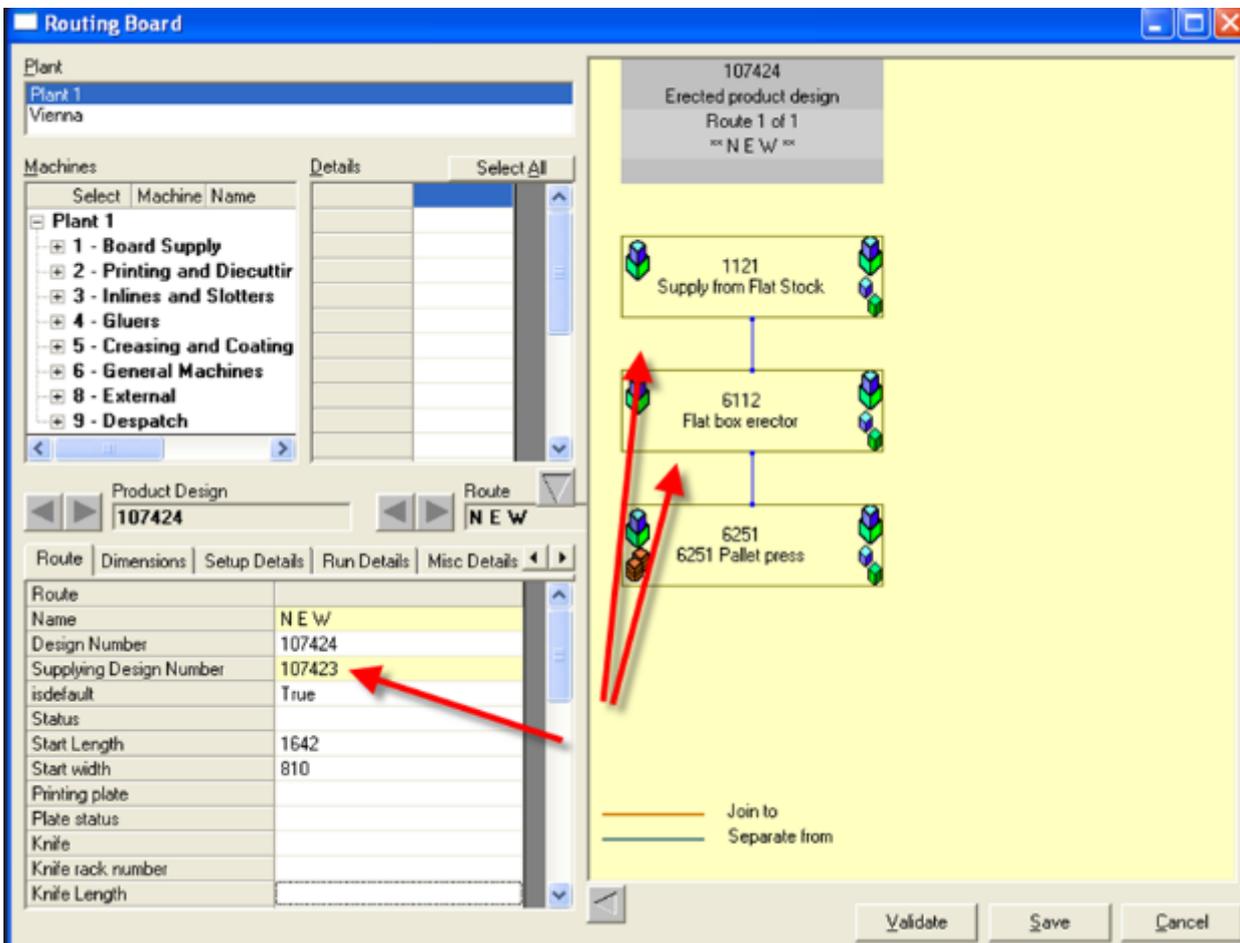
The machine route should be set up as normal, without the finishing step.

Finished Product Design

The finished PD must also have a stock line.

The machine route should be the Supply from Stock machine, the finishing machine and the strapper, so the operations on the PD need to be Supply board, whatever finishing operations are required, and strapping.

The machine route should have the unfinished PD number specified in the ‘supplying design number’ field.



Business Rule for Special Instruction

There is currently nothing on the order for the finished PD to indicate that it is being supplied by another PD. However this can be easily remedied by writing a business rule to the Order business class that adds the supplying PD number to the special instructions.

Expression:

```
[SpecialInstructions]:= [SpecialInstructions] & iif([Ordertype]<>"calloff" AND
isobjectvalid([Route.SupplyingProductDesign])=true AND findcount("to supply this
order",[specialinstructions])=0," !!!!! Please use PD" &
[Route.SupplyingProductDesign.Designnumber] & " to supply this order !!!!!", "")
```

This rule appends a message to the existing special instructions, but only if the following conditions are true:

- the order is not a calloff

- the route attached to the order has a supplying PD number
- the message isn't already in the special instructions

The message that is added to the special instructions:

!!!! Please use PD**** to supply this order !!!!

where **** is the supplying PD number from the machine route.

Ordering, Feedback and Delivery

Here is the sequence of events for this scenario:

- topup is placed for the unfinished PD to increase the stock. It is converted and booked into store
- topup is placed for the finished PD
- the finishing step is fed back
- this automatically feeds back the Supply from Stock step, drops the unfinished stock levels and increases the finished stock levels
- calloff order is placed for delivery of finished product

Revision #1

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