WATCH THESE VIDEOS FOR SURE!

What to do at:

WS-1 | WS-2 | WS-3 | WS-4 | WS-5 | SHIPPING

What if there is scrap?

USE STICKIES TO DESCRIBE STEPS

Day 1 - Build in Batches of 5

The Sky-View Airplane Company (SVAC) has the reputation of producing high quality airplanes for customers around the world. The company is in the process of negotiating a large contract and will be awarded the business only if deliveries can be guaranteed.

SVAC has been considered a "traditional" manufacturing operation, using quarterly sales forecasts that drive their MRP system. A Master Production Schedule (MPS) is generated through the available information and weekly spreadsheet schedules are prepared and delivered to Workstation #2 and Workstation #4. As situations change in the plant, daily adjustments to the schedule are made.

Daily orders are received from customers and a daily shipping schedule is given to the shipping department who must ship an average of 10 airplanes per day.

Expeditors conduct daily checks at Workstations 2, 3 and 5, to ensure parts are available for customer's requirements. The information gathered is fed back to the scheduler.

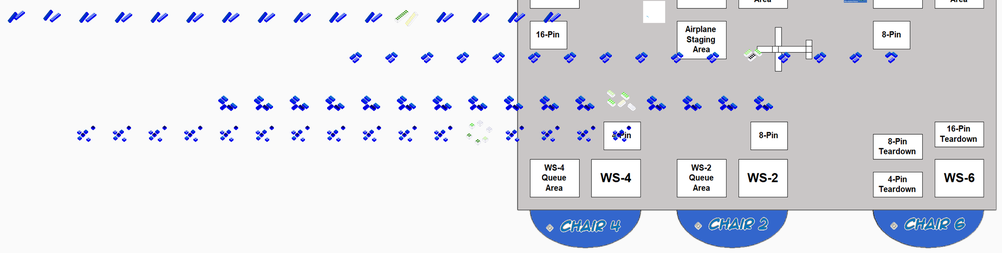
Sky-View Industries (SVI) is a division of and the main supplier of parts to SVAC.

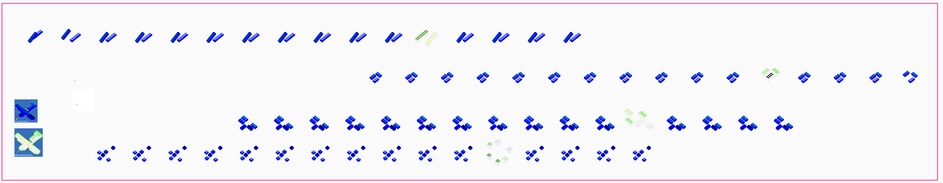
SVAC gives Sky-View Industries a monthly forecast of their requirements and sends them purchase orders that will cover them for the following weeks production. Sky-View Industries is within 5 miles of SVAC and can deliver any day of the week. SVAC decided that it would take deliveries of parts on Mondays.

SVAC has decided to adopt a "Lean Thinking" strategy to try to improve their deliveries and reduce their cost of running the company. The following additional information is available:

• It is assumed that all of the critical components required to build the aircraft are brought into the plant from Sky-View Industries
• At this point SVAC has decided to concentrate its initial efforts on their assembly plant.
• The parts coming in to the plant are spot checked for conformance to specifications.
• The plant operates on a one-shift basis of 12 hours with a 30-minute lunch break and two 10-minute coffee breaks. At present a lack of appropriate skilled people has prevented them from operating additional shifts.
• There are four assembly operations, one inspection operation and a shipping operation:
1. Assembly of Primary Wing/Airframe Section
2. Assembly of Two Wing Sections
3. Assembly of Large Section of the Tail
4. Assembly of Nose, Fuselage, Cockpit, Tail and Wheels
5. Inspection and Quality Control
6. Information Gathering and Shipping
• A "Set-up" or "Changeover" is required at Assembly Operation #3
• Plant Effectiveness = 80%
• Customer Requirements = 24 aircraft/day

	STEP 1	STEP 2	STEP 3	STEP 4	STEP 5	STEP 6	STEP 7	STEP 8
WORK STATION #1	CLICK IN WORKSTATION	1	2	3	4	5		
WORK STATION #2								
WORK STATION #3								
WORK STATION #4								
WORK STATION #5								
WORK STATION #6								





Airplane Production and Cycle Time

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- A "Set-up" or "Changeover" is required at Assembly Operation #3
- Plant Effectiveness = 80%
- Customer Requirements = 24 aircraft/day

Airplane Production

	Planes Produced	Lead Time	Rework	Scrap	W.I.P.
Day 1					
Day 2					
Day 3					
Percentage Improvement					

Initial Airplane Production

Workstation Number	Cycle Time	Takt Time
1		
2		
3		
4		
5		
6		

Takt Time = Available Time/ Customer Demand

Takt Time = 24

Cycle Time compared to Takt - Operator Balance Chart

Workstation Number

Initial Airplane Production

Workstation Number	Cycle Time	Takt Time
1		
2		
3		
4		
5		
6		

Takt Time = Available Time/ Customer Demand

Takt Time = 24

Cycle Time compared to Takt - Operator Balance Chart

Workstation Number

FIXTURE STORAGE WAREHOUSE