



**Components Inventory for Final Product Assembly**

Nr	Layer 1	Layer 2	Layer 3	Layer 4				
<b>Pallet 1</b>	A	G	H	B	J	D	C	E
	F	K	I	C	A	F	H	F
<b>Pallet 2</b>	G	I	E	D	C	K	A	E
	H	J	G	F	H	B	F	H
<b>Pallet 3</b>	D	E	C	K	K	J	A	E
	I	G	J	A	G	I	F	A

**Production Plan- Final Product Assembly**

Week 1	Line 1			Line 2			Line 3		
Shift →	S1	S2	S3	S1	S2	S3	S1	S2	S3
Monday	A	K	G	B	J	D	A	D	F
Tuesday	A	C	B	A	G	F	H	E	C
Wednesday	J	G	E	D	K	H	A	L	G
Thursday	J	C	J	G	H	L	K	E	C
Friday	K	E	D	H	F	G	J	K	B

The actual Production plan is chaotic, for example, if you want to buy product A on Thursday, you need to wait until Monday to be produced. Using Heijunka, the New Production Plan looks like this:

Production Plan- Final Product Assembly									
Week 1	Line 1			Line 2			Line 3		
Shift →	S1	S2	S3	S1	S2	S3	S1	S2	S3
Monday	A	K	G	B	J	D	A	D	F
Tuesday	A	C	B	A	G	F	H	E	C
Wednesday	J	G	E	D	K	H	A	L	G
Thursday	J	C	J	G	H	L	K	E	C
Friday	K	E	D	H	F	G	J	K	B



Production Plan- Final Product Assembly									
Week 1	Line 1			Line 2			Line 3		
Shift →	S1	S2	S3	S1	S2	S3	S1	S2	S3
Monday	G	A	J	G	H	C	D	E	L
Tuesday	G	A	J	K	H	C	D	B	F
Wednesday	G	A	J	K	H	C	E	B	L
Thursday	G	A	J	K	H	D	E	B	F
Friday	G	A	J	K	C	D	K	E	F

Now, we must reorganize the inventory space, to produce by JIT System, using the oldest manufactured components first.

Production Plan- Week 1	5A	3B	4C	4D	4E	3F	6G	4H	5J	5K	2L
Inventory	6A	2B	4C	3D	5E	6F	5G	5H	4J	4K	4I

The fact is, the actual inventory doesn't help the production team to finish the orders, because the inventory is not transparent. As you can observe in the previous table, the green-colored products can be delivered, because the deposit is matching the order. The bigger problem appears in the case of red or blue-colored products. The blue-colored part represents an uncommon situation, meaning a product that is not required. One of the products is less than required and the other ones, for example, the product type F it's part of the overproduction category.

Nr	Layer 1		Layer 2		Layer 3		Layer 4	
Pallet 1	A	G	H	B	J	D	C	E
	F	K	I	C	A	F	H	F
Pallet 2	G	I	E	D	C	K	A	E
	H	J	G	F	H	B	F	H
Pallet 3	D	E	C	K	K	J	A	E
	I	G	J	A	G	I	F	A



Nr	Layer 1		Layer 2		Layer 3		Layer 4	
Pallet 1	A	A	E	E	F	F	G	G
	A	A	E	E	F	F	G	G
Pallet 2	H	H	C	C	I	I	J	J
	H	H	C	C	I	I	J	J
Pallet 3	K	K	A	A	D	D	G	H
	K	K	F	F	D	E	B	B