## HEC MONTREAL ERP SIMULATION GAME Manufacturing Game powered by ERPsim

# Manufacturing Advanced Game

Jser:	\$_1 to \$_9	Adapted for Fiori and for SAP GUI with Fiori Visual Theme Activated
nitial password:	ERPSIM	© ERPsim Lab, HEC Montréal
1		Last Update: July 12, 2021

FORECAST SALES	CALCUI	LATE REQU	IREMENTS	ORI	DER MATER	IALS	RELE	ASE PROD	UCTION	PLAN	MARKETING BUDGET	M	AINTAIN PRICES
Create Planned Indep. Req. (MD61)		MRP Run (MD	001)	Create P	urchase Order	s (ME59N)	Convert Planned Orders (CO41)		Marketii	ig Expense Planning (ZADS)	Cha	nge Price List (VK32)	
Select <i>Product group</i> and enter the following information	<b>1</b> Press	s <i>Enter</i> or click Execut	e	1	1 Execute		1 Run Selection		Enter your daily amount of		1 Ope dou	n the <i>Prices</i> folder and ble click on <b>Price list</b>	
Product group: \$\$-F	lgno	ore orange wa	rnings				If no orde	planned orde r could not be	er: Planned selected	<b>1</b> ma	<b>1</b> marketing expenditure for		<i>stribution channel</i> , enter 12 or 14
2 Continue	2 Pres	s two more tir	mes on <i>Enter</i>	Purch	nase orders are	created	2 Sele	ct orders		each product per area		3	Execute
<b>3</b> Enter your forecast quantities in the 2nd date column	In th	ne non-un win	dow click			3	Conv	rert			<b>4</b> Mod	ify your prices	
4 Save	3	Continue	elow, chec	If no No su	open requisitio iitable requisiti	ons: ions found	If co click	nversion fails, a on 🗙 to se	, e log	2	Save	5	Save
FINANCIAL STATEMENTS	2	STOCK LEV	ELS	PROCU	REMENT TR	RACKING	PROD	UCTION SO	CHEDULE	PF	ODUCTION COST	SALES	AND MARKET DATA
Financial Statements (F.01)	Inve	ntory Report	(ZMB52)	Purchase	Order Trackin	ıg (ZME2N)	Produ	Production Report (ZCOOIS)		Produ	ct Cost Planning (ZCK11)	Summ	ary Sales Report (ZVC2)
<b>1</b> In <i>Company Code</i> , enter your <company code="">*</company>	Shows st prod	ock levels for ucts and raw r	both finished materials	Shows the	e details and tl ich purchase of	he status of rder	Shows r	eleased produ	uction orders	Shows va	riable and fixed costs for each	Shows agg	regate daily sales by product
GUI step Select ALV Tree Control	Shows q	Juantities of ra	aw materials	Shows the	e dates of expe	ected goods	For each	n order, the tir	ne released,	5110143 44	finished product	Detail	ed Sales Report (ZVA05)
2 FIORI step In Statement Version, enter			Procurement Sourcing (ZME13)		started and finished (or to start and finish if incomplete)		Recalcula capac	tes costs based on production ity and productivity level	Shows sal	es related info such as sales revenue by region			
SIM1	Liaui	idity Planning	a (ZFF7B)				lf Ta	rget Qty > C	onf. Qty	Shows	daily amounts of fixed costs $d$	Price N	arket Report (ZMARKET)
<b>3</b> GUI step Execute FIORI step Go	Displays a fo	n estimate of or the coming	your cashflow weeks	Shows the	price of each r sold by vendo	raw material rs	proc		penung	(overnea		Shows ago	regate market sales data of past 5 days
CHANGE PRODUCT DESIGN		REPAY LO	AN	RED	UCE SETUP	TIME	INC	REASE CAI	ΡΑϹΙΤΥ	PLA	N STOCK TRANSFER		
Validated BOM Change (ZCSO2)	G/L Account Posting (FB50)		lidated BOM Change (ZCS02) G/L Account Posting		G/L Account Posting (FB50)		G/L A	ccount Postii	ng (FB50)	Si	cock Transfer (ZMB1B)		
Select the material to change by clicking	1 In Jour	rnal Entry Date	z, select today's	<b>1</b> In <i>Journa</i> date	al Entry Date, se	elect today's	<b>1</b> In Jour	nal Entry Date,	select today's	1 Sel Pla	ect between a Push or Pull nning Mode		
Edit BOM	2	1 <sup>st</sup> Line	2 <sup>nd</sup> Line	2	1 <sup>st</sup> Line	2 <sup>nd</sup> Line	2	1 <sup>st</sup> Line	2 <sup>nd</sup> Line	2 ln 9	cheduling, enter your		
	Account	113300	113101	Account	113300	478000	Account	113300	11000				
<b>2</b> Change quantities and Save	D/C	Credit	Debit	D/C	Credit	Debit	D/C	Credit	Debit	3 Ent	er the amount of each duct you wish to send/		
If received error messages, click on	Amount	???	???	Amount	???	???	Amount	???	???	ma	intain in each region		
• Continue to modify the entries	<b>3</b>	on Simulate a Post	nd then	<b>3</b>	on Simulate and Post	d then	<b>3</b> Click	on Simulate a Post	nd then	4	Save		
*To find your company code refer to tran	saction ZORG	(Organization	al Structure)	Planning		Procurement	Pro	duction	Salar			counting	

Reports

## HEC MONTREAL ERP SIMULATION GAME Manufacturing Game

# Manufacturing Advanced Game



500g

1kg

\$\$-F01

\$\$-F11

20% wheat\*

1 box / 1 bag\*

30% oat\*

20% nut\*

\*minimum

	NEED
MER.	Y
IMICIERI	C. S. C.
Blueberry	
AND MAD	
And the second s	
A CONTRACT OF A CONTRACTACT OF A CONTRACTACT OF A CONTRACT	

Blueberry	
\$\$-F02 \$\$-F12	500g 1kg
20% wheat* 30% oat* 20% blueberry*	
1 box / 1 bag*	



Strawberry	
\$\$-F03 \$\$-F13	500g 1kg
20% wheat* 30% oat* 20% strawberry* 1 box / 1 bag*	
*minimum	

### STORAGE CAPACITY AND COSTS

Product type	Current space	Cost per additional 50 000 units*
Finished products	250 000 boxes	€500/day
Raw materials	250 000 kg	€1 000/day
Packaging (bags and boxes)	750 000 units	€100/day

FIXED COSTS (€	paid each 5 days)*
Labor	20 000
Manufacturing overhead	15 000
S, G & A	40 000
Depreciation (Building)	1 250
Depreciation (Equipment)	50 000**

\*Billed automatically

User:		
Initial	password:	

500g

1kg

Raisin

Raisin

\$\$-F04

\$\$-F14

20% wheat\*

20% raisins\*

1 box / 1 bag\*

30% oat\*

\*minimum

\$\_1 to \$\_9 ERPSIM

1ko

Original

Original

20% wheat\*

1 box / 1 bag\*

30% oat\*

\*minimum

Adapted for Fiori and for SAP GUI with Fiori Visual Theme Activated

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Mixed	
\$\$-F06 \$\$-F16	500g 1kg
20% wheat*	

20% wheat\* 30% oat\* 30% fruits & nuts\*\* 1 box / 1 bag\* \*minimum \*\*At least some of all fruits/nut

#### **PRODUCTION CAPACITY**

Capacity (units/day)	24 000
Additional Capacity Cost (€ per 1 000 units)	1 000 000**
Minimum/Maximum Lot Size	16 000/48 000

\*\*Investing in additional capacity will increase equipment depreciation costs

SETUP TIME					
Setup time (hours)	<b>Expense</b> (€)				
8	-				
7	50 000				
6	125 000				
5	250 000				
4	500 000				
3	1 250 000				

## CUSTOMERS



DC 10: Hypermarkets Payment Time: 20 days Approximate Market Size €90 000 per team per week

DC 12: Grocery Chains Payment Time: 10-20 days Approximate Market Size €360 000 per team per week





DC 14: Independent Grocers Payment Time: 1-20 days Approximate Market Size €120 000 per team per week

SUPPLIERS	
Lead time (days)	1-5
Payment time (days)	20
TRANSPORTATION COSTS	
Main Warehouse to Regional Storage Location	€1 000