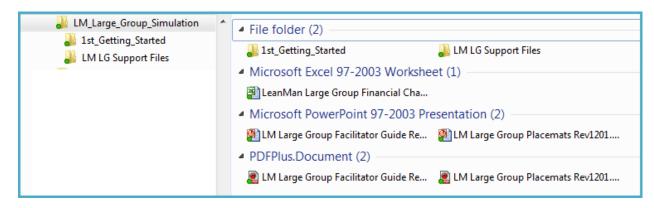
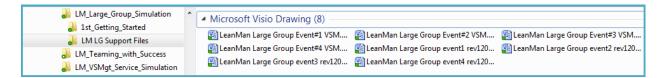
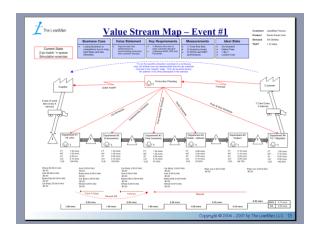
Read Me Document LM LGS Rev1701.doc

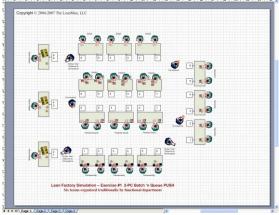
CD Organization:





The LM Large Group Support Files are raw data files useful for editing the presentation and placemat files. The support files include the value stream map diagrams and the figure graphics used to show room set ups and flows. Requires the use of MS Visio program.





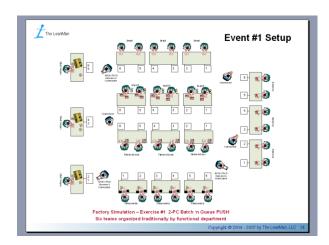
Large Group Support Files

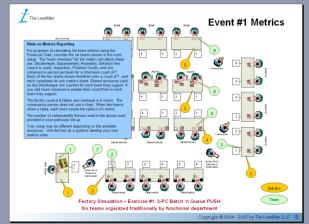


The Large Group Facilitator Guide is provided in both PowerPoint and Adobe formats. A color printed and bound copy is included with the purchased package.

The participant placemat set is also provided in both file format versions, but not pre-printed. This allows you to edit and print just what you need for each simulation event.

The guide shows all setups, provides talking points for the facilitator; with suggestions for follow up after each step to include elements of 5S and Waste review.





The table and participant set up and flow is provided using graphical representations of the training room. Metrics reporting is important and must be done with meaning.

The facilitator guide includes a second set up overview with the key metrics reporting stations clearly highlighted to help the facilitator keep track of the event.

Lean Factory Simulation Kits

💤 Financial Chart	Event #1			Event #2			Event #3			Event #4		
LeanMan Car Factory Large Group	Batch 'n Queue		Cellular Flow - PUSH		Cellular Flow - PULL			Lean Flow				
# Cars delivered x \$500 ea = Total Sales =	3	1	1,500.00	3	\$	1,500.00	8	;	3,000.00	8	\$	3,000
		⊢			+			\vdash			╆	
Cost of Goods Sold		\vdash			1			T	-		\vdash	
Sales Material = # cars sold x \$100 ea	3	1	300.00	3	1	300.00	6	1	600.00	9	1	900
Labor = # workers x \$165 ea	7	\$	1,155.00	7	\$	1,155.00	7	\$	1,155.00	3	\$	495
Labor OT = # minutes OT x \$40 ea worker	2	1	560.00	0	\$	-	0	\$	-	0	\$	
Overhead = # Chairs used x \$10 ea	6	1	60.00	6	\$	60.00	6	\$	60.00	3	\$	30
Scrap = # nonconforming cars x \$100 each	2	1	200.00	2	\$	200.00	2	1	200.00	0	- 1	
Total of COGS =		1	2,275.00		\$	1,715.00		\$	2,015.00		\$	1,425
Capital Charges		F			\vdash			\vdash			\vdash	
Work in Process		Т			T			Т			\top	
Stockroom = # undelivered kit bags picked x \$100 ea	2	1	200.00	2	\$	200.00	0	:			Т	
Wheel/Axle/Brake Subassy = # Subassembly Items built x \$10 ea	7	1	70.00	4	\$	40.00	0	*		0	1	
Car Assy = # Undelivered cars built x \$60 ea	2	1	120.00	2	1	120.00	1	1	60.00	0	1	
Car Detail = # Undelivered cars detailed x \$10 ea (if used)	2	1	20.00	1	\$	10.00	1	\$	10.00	0	\$	
Inspection = # Cars in inspection x \$100 ea	2	1	200.00	1	\$	100.00	1	1	100.00		П	
Total VIP Inventory		\$	610.00		\$	470.00		\$	170.00		\$	
FGI = # Cars in Finished Goods x \$100 ca (not part of WIP)	1	\$	100.00	1	\$	100.00	1	\$	100.00	3	\$	300
Facilities		П										
#Tables used x \$15 ea	6	*	90.00	5	\$	75.00	4	*	60.00	1	\$	15
# Fixtures used x \$10 ea	2	\$	20.00	2	\$	20.00					П	
Total Capital Charge =		\$	820.00		\$	665.00		*	330.00		\$	319
Sales – COGS – Capital Charges = EVA =		:	(1,595.00)		\$	(880.00)		\$	655.00		:	1,260
Production Velocity (8 minute run plus OT)		F			F			F			F	
Number of Minutes Worked	10			8			8			8		
Number of Cars Produced (sold + FG Inv)	4			4			7			3		
Production Rate =	0.40			0.50			0.88			1.13		

Metrics recording is easy with the included Excel Financial Calculation program.

Facilitator Notes:

The 84 page Facilitator Guide and Instruction Placemats for the four main LM large group simulations are on the CD and can be printed and used as is. However, it is intended that the LM large group simulation set be edited to focus on specific training needs. Therefore, unlike the LTS, TPS and VSM simulations, the LM large group simulation participants placemats are not provided as a laminated set, and are instead provided as a PowerPoint file for you to edit and customize for your specific audience. Once the slides are adjust to your needs, print and laminate to provide the participants with instructions. They greatly ease the apprehension of the participants to have something in front of them to read and they greatly aid the facilitator in getting the exercise started.

The LM Large Group simulation is used with two or more LeanMan Car Factory kits and is intended to allow a variable number of participants to get hands-on with the simulation events. Limitations in the quantity of materials require certain reductions in the simulation content, such as 2-pc batch 'n queue simulation versus 3 or 5 piece, and 8 minute simulation runs versus 10 or 15 minute runs. However, there is still sufficient content to allow real world simulation. A new focus on the 8 wastes of production is also emphasized in the Facilitator Guide and after-event discussions. The Large Group events also provide for an additional labor point called Detail. Feel free to add this function to the standard simulation events as well.

The large group simulation can be run with as few as 5 participants and a single car factory kit, but as additional people are available to act as material movers (conveyance), detailers, and observers the participant size can increase to 39 people with 3 car factory kits divided among six teams. Adding Quality Control functions such as nonconforming material reject cards; lot reject versus single item reject methods; and "rework hospital" versus in-line rework methods can also add to the realism of the flow. Methods that mimic the training audience's own quality methods should be used. Having participants swap seats between each exercise is recommended to keep the learning curve consistent.

Good luck in your lean endeavors.

The LeanMan