

## Player Manual for Beer game

Last Modified Jan 7, 2011

Game Link: <http://davinci.tamu.edu/beergame/>

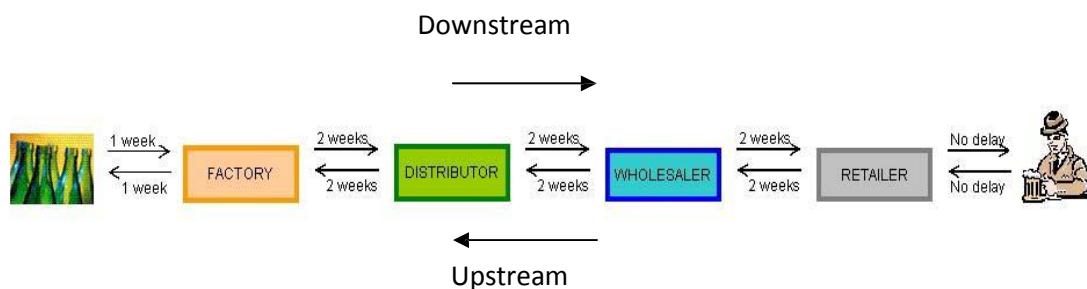
**Objective of the Game:** Is to satisfy the demand of the customer, while keeping the cost low. There is a cost for holding inventory and a cost for not satisfying demand (backorder). The demand for the product remains until it is satisfied i.e. backorder persists until it is fulfilled.

Each player would be given an information card as shown below,

<p><b>465-Spring06</b></p> <p><b>Game number : 1</b></p> <p><b>Position : RETAILER</b></p> <p><b>Password : 7z3m</b></p>
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The information card contains details regarding the group (e.g. 465-Spring06), game (e.g. 1), position (e.g. Retailer) and password. Using this information a player could start/login into his game.

When a player clicks on the link to play the game, he would see the entire list of groups registered to play this game. The player would be directed to click on his group (e.g. 465-Spring06), which would direct him to the list of games. Each player would be assigned to a position in a game. When the player clicks on the game button, he would see a snapshot of the supply chain as shown below,



This picture would vary according to the game settings. The traditional supply chain partner positions include factory, distributor, wholesaler and retailer. Sometimes there might be less than 4 supply chain partners in a game. The two types of flows in this supply chain include product and information. There may be delay in these flows, which could be 1 or 2 weeks or in some cases no delay. Shipment (product flow) is made downstream and information is transmitted upstream in this supply chain.

As soon as a player clicks on his position, he/she would be asked to login using the password given to them. After validating the login, the player is transferred to their game screen. The game screen consists of 4 regions, namely order input screen, past information (10 weeks) about their position, status information of the supply chain partners and plot and settings screen.

**Input Screen for Retailer of Game 1**  
For Week 13

Demand from Customer : <b>8</b>	Beginning Inventory : <b>7</b>
On Backorder : <b>0</b>	Incoming Shipment : <b>12</b>
Total requirements : <b>8</b>	Total available : <b>19</b>

Units Shipped to Customer this week: **8**  
Ending inventory **11**

Enter the number of units to be purchased from Distributor :

**Retailer INFORMATION FOR THE LAST TEN WEEKS**

Week	Inv/Bk	Demand	Incom. ship	Outg. ship	Order placed	Current cost
3	12	4	4	4	5	18
4	12	4	4	4	11	24
5	10	8	6	8	4	29
6	7	9	6	9	6	32.5
7	4	8	5	8	7	34.5
8	7	8	11	8	15	38
9	3	8	4	8	12	39.5
10	1	8	6	8	17	40
11	0	8	7	8	22	40
12	7	8	15	8	8	43.5

**Status of other Supply Chain Channel Members of Game 1**  
*This page will be refreshed every 15 seconds*

When all the players have completed the order for the current week, the player will automatically receive a link to proceed to next week

The status will be updated in 12 seconds.

**Week 13**

Factory : **Has not ordered**

Distributor : **Has not ordered**

Retailer : **Has not ordered**

**Inventory and Order Status plots For Retailer**

**Supply Chain Settings for Retailer:**

Holding cost : **0.5**  
Backorder cost : **1**  
Downstream Player : **Customer**  
Upstream Player : **Distributor**  
Shipping Delay : **2 weeks** (Distributor -> Retailer)  
Information Delay : **2 weeks** (Retailer -> Distributor)

### 1. Order input screen

This screen provides information regarding the current demand (from downstream partner) and current incoming shipment (from upstream partner). For a player:

Total demand = Current demand + Backorder

Available to ship in a week = Incoming shipment + on hand inventory

If Available to ship > Total demand,

Ending inventory balance = Available to ship – Total demand

If Available to ship < Total demand,

Backorder (unsatisfied demand) = Total demand – Available to ship

All these calculations are done automatically. The player just has to **decide how much to order** from his upstream partner. This decision affects the cost of his system, which depends on the inventory/backorder he carries. He can use the data in the other screens namely, past information and plots to aid his decision.

### 2. Information for the Last ten weeks

This screen displays the information for the last 10 weeks (if available), it includes data regarding inventory/backorder, incoming shipment, outgoing shipment, order placed and current cost (cumulative).

### 3. Status of the other supply chain channel partners

This is a unique feature of this game, which displays the status of the other Supply chain partners for the current week. This part of the screen gets refreshed automatically every 30 seconds. As soon as all the partners complete the order processing for the current week, the player would see a button appear in this part of the screen. By clicking the button, a player could proceed to fulfill his order for the next week. This helps in controlling the flows in

the game without the intervention of an external authority.

**DISTRIBUTOR STATUS**

End Of Week 12

1

Your order(to the factory) for the Week 12 is **25**  
 Your shipment(to the Retailer) for the Week 12 is **17**  
 You have an on hand inventory of **2** at the end of Week 12  
 Current cost of Distributor : **59.5**

PLEASE WAIT FOR ALL THE OTHER PARTNERS TO COMPLETE THEIR WEEKLY ORDERING AND SHIPPING POLICIES.  
 Once completed you will see a link in the bottom window to proceed to next week 13. Please click that to proceed.

**Distributor INFORMATION FOR THE LAST TEN WEEKS**

Week	Inv/Bk	Demand	Incom. ship	Outg. ship	Order placed	Current cost
2	12	4	4	4	9	12
3	10	6	4	6	7	17
4	8	6	4	6	10	21
5	11	5	8	5	8	26.5
6	9	11	9	11	6	31
7	12	4	7	4	6	37
8	16	6	10	6	17	45
9	17	7	8	7	17	53.5
10	8	15	6	15	22	57.5
11	2	12	6	12	28	58.5

2

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All have completed the order process for Week 12

Please  to proceed

Thank You.

3

**Inventory and Order Status plots For Distributor**

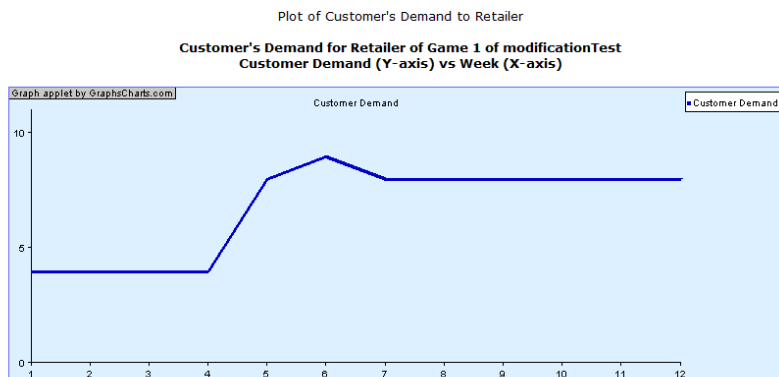
4

**Supply Chain Settings for Distributor:**  
 Holding cost : 0.5  
 Backorder cost : 1  
 Downstream Player : **Retailer**  
 Upstream Player: **Factory**  
 Shipping Delay : **2 wks** (Factory -> Distributor, Distributor -> Retailer)  
 Information Delay : **2 wks** (Distributor -> Factory, Retailer -> Distributor)

#### 4. Plots and supply chain settings

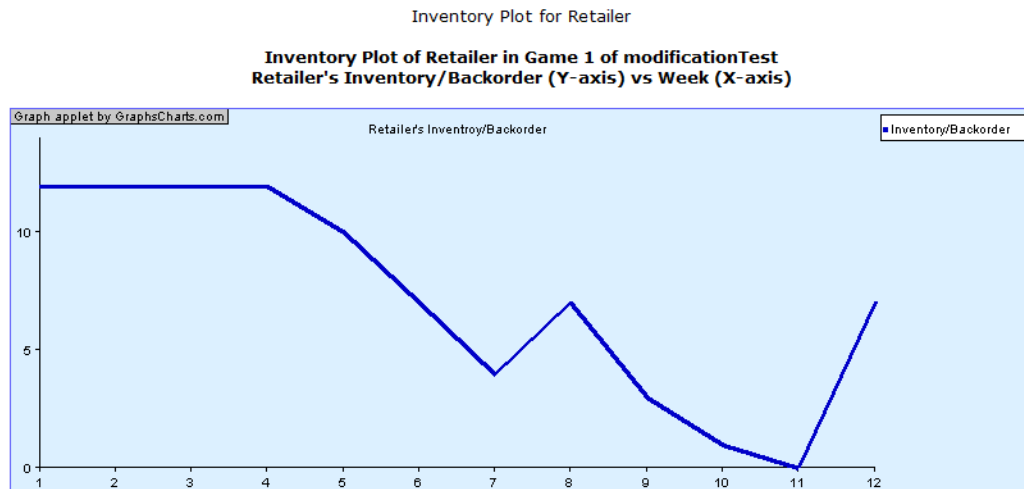
Using the buttons in this screen, a player could view the demand, inventory/backorder and order plots for the **“entire duration of the game”**. The supply chain settings for the player is also displayed in this screen, which includes the holding cost/unit/week, backorder cost/unit/week, information regarding the upstream and downstream partners along with their delay (shipping and information) information.

#### Demand Plot



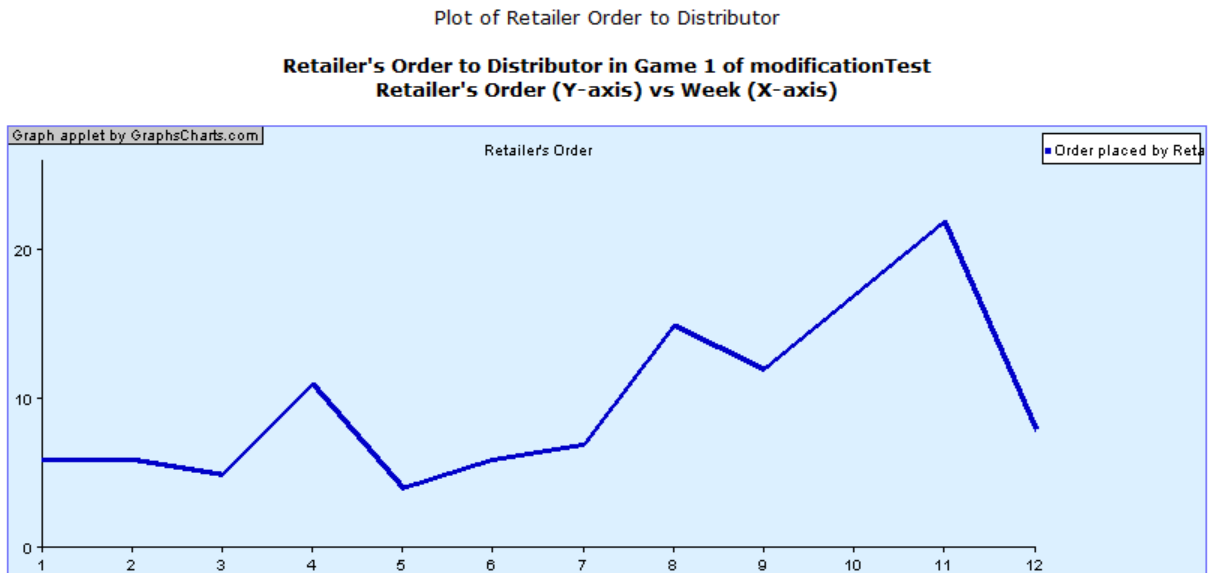
The demand plot shows the order pattern of the next upstream member in the supply chain.

## Inv/Back Order Plot



The Inv/Back Order plot shows the graph of the player and the variations in inventory with time.

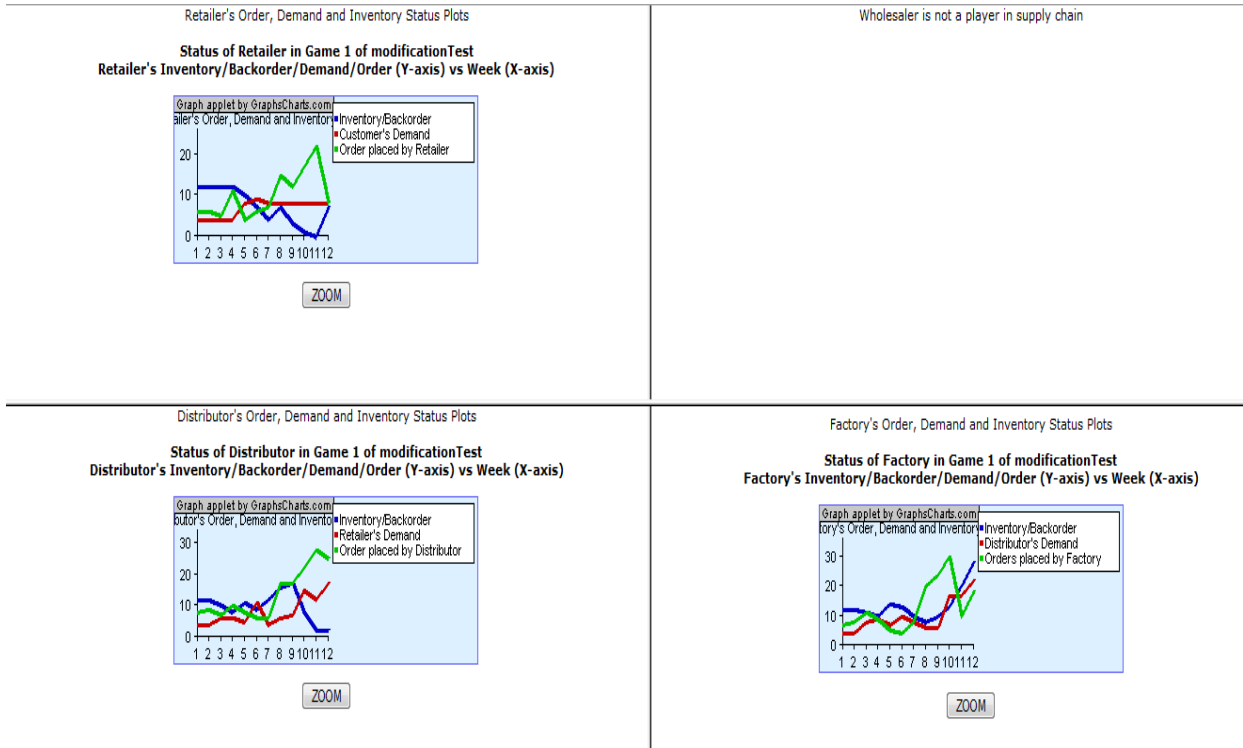
## Order Plot



Order plot shows the order pattern of the player.

## Plot All for all players

The '*plot all for all players*' shows all the details of every player in the supply chain including Inv/backorder plots, demand plots, order plots. This plot helps the player to make decisions and also analyze the status of the game.



## Summary of Results

After the game is over, all players will be able to view the results of all the teams in the class

Input Screen for Retailer of Game 1

To View Results, Click Below

Click here to view results of all the games

**Retailer INFORMATION FOR THE LAST TEN WEEKS**

Week	Inv/Bk	Demand	Incom. ship.	Outg. ship.	Order placed	Current cost
27	0	8	8	8	8	688.5
28	0	8	8	8	8	688.5
29	0	8	8	8	8	688.5
30	0	8	8	8	8	688.5
31	0	8	8	8	8	688.5
32	0	8	8	8	8	688.5
33	0	8	8	8	8	688.5
34	0	8	8	8	8	688.5
35	0	8	8	8	8	688.5
36	0	8	8	8	8	688.5

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**Game over**

Please wait for the instructor to summarize the result for the class  
Thank you for playing the game, hope you enjoyed it.  
Please pass your suggestions, if any, to your instructor.  
**Note:** Click the refresh button in the browser to see your final cost.

Created by [Chalam](#)

**Inventory and Order Status plots For Retailer**

**Supply Chain Settings for Retailer:**  
 Holding cost : 0.5  
 Backorder cost : 1  
 Downstream Player : Customer  
 Upstream Player: Wholesaler  
 Shipping Delay : 2 weeks (Wholesaler -> Retailer)  
 Information Delay : 2 weeks (Retailer -> Wholesaler)

Status of the all Games in IDIS344-501 account

[Click here for Player Manual](#)

Game number	Game settings Delay, Holding Cost, Backorder Cost	Total Cost Week completed	Factory Cost Week completed	Distributor Cost Week completed	Wholesaler Cost Week completed	Retailer Cost Week completed	Graphical plots
1	2 weeks , 0.5, 1	Cost : <b>4156</b> W.C. : 36	Cost : <b>1340.5</b> W.C. : 36	Cost : <b>1290</b> W.C. : 36	Cost : <b>837</b> W.C. : 36	Cost : <b>688.5</b> W.C. : 36	<input type="button" value="Plots"/>
2	2 weeks , 0.5, 1	Cost : <b>9461.5</b> W.C. : 36	Cost : <b>2752.5</b> W.C. : 36	Cost : <b>1861</b> W.C. : 36	Cost : <b>3497</b> W.C. : 36	Cost : <b>1351</b> W.C. : 36	<input type="button" value="Plots"/>
3	2 weeks , 0.5, 1	Cost : <b>3515.5</b> W.C. : 36	Cost : <b>724</b> W.C. : 36	Cost : <b>1033</b> W.C. : 36	Cost : <b>1192</b> W.C. : 36	Cost : <b>566.5</b> W.C. : 36	<input type="button" value="Plots"/>
4	2 weeks , 0.5, 1	Cost : <b>6105.5</b> W.C. : 36	Cost : <b>2897.5</b> W.C. : 36	Cost : <b>3105</b> W.C. : 36	<i>Not applicable</i>	Cost : <b>103</b> W.C. : 36	<input type="button" value="Plots"/>
5	2 weeks , 0.5, 1	Cost : <b>0</b> W.C. : 0	<i>Yet to start.</i>	<i>Yet to start.</i>	<i>Yet to start.</i>	<i>Yet to start.</i>	<input type="button" value="Plots"/>

[Go back to the list of all games page](#)

If you have any problems, contact [chalam](#)

If you have any concerns or questions regarding this game, please contact your Instructor or Chalam ( [chalam@tamu.edu](mailto:chalam@tamu.edu) ).