

Chocolate Factory User Guide

This section presents a complex system: a simulation of a chocolate factory. Your task will be to manage the chocolate factory, which requires you to make decisions about various stocks and flows in the simulation. You have the opportunity to use some of your previous training on stocks, flows and feedbacks.

Please read the following instructions carefully.

To begin a session:

- 1) Start the program
- 2) When a box appears, enter your Identification Number and click 'Ok'.
- 3) An image will appear with the credits, click anywhere on the image to continue.
- 4) When a box with licence information appears, accept the licence conditions by clicking 'Ok'.
- 5) The main Menu will finally appear.

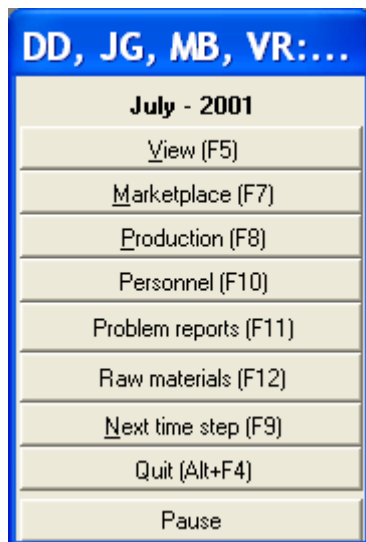


Figure 1. The main menu

decisions will be implemented in the factory for one month.

Notice that, every few times steps, a window appears saying "Please fill in letter to shareholders..."; disregard this message and simply press Ok. This will execute the time step (that is, you do not need to click on 'Next time step' again to run the factory for the current month)

Quit closes the application. Do not do this unless explicitly asked to do so. If for any reason you need to Quit, contact the facilitators.

Pause locks the application. Click here if you wish to take a break when you have finished for the day and want to continue the next day. This is needed to stop the data recording and hold for the next iteration.

View opens a window which allows you to inspect all variables: both current and past values are available in this window. The view screen is a bit complicated so you need to get used to it.

Main Menu This is the main menu of the software. The date at the top tells you the current month and year within the micro-world. The purpose of each button will be discussed briefly here, but it is also up to you to explore for yourself (learning how it all works is part of the game).

Notice that you can access each menu via the shortcut using the F# (Function) keys. Once a window is open, you need to first close it before you can open another one; you do so by clicking on the 'Close' tab. Occasionally the 'Close' tab may be hard to see. In this case you can close the window by clicking Alt+Function key.

Next time step will proceed to simulate one month in this micro-world; all actions you want to impose on the Chocolate Factory during that month need to be taken before clicking on 'Next time step'. Upon clicking, all your

To view any of the data available click first on the item you want (on the left hand side, under Data Available); then drag it into the spreadsheet (note that the item you wish to drag has to be highlighted or the dragging will not work).

Should you get an error message saying something along the line of “.. *can't open file 'month_year' .. file not found.*” the most likely reason is that your computer is set on a date format different from the standard used where you are (for example, the date may be set on 'Month – Day – Year' [US standard] while you may work in Australia, where the required format is 'Day – Month – Year'). To change this, go to 'Control Panel' and choose 'Regional and Language Options'.

Items with “All” next to them have specific types which can be selected. For example, highlight “Raw Material: All” and then right click it; you will notice that it now says “Raw Material: Cacao”. This means that any of the data related to raw materials you drag will now only be related to the raw material cacao. Right clicking further will cycle through all the various types until it comes back to “All”. This works in a similar fashion for all such items.

The scroll bar at the top allows you to choose for what month you want to visualise the data (by default it shows the current month). You can use feature to access data from previous months.

You can use the spreadsheet for some simple calculations. To do this simply place an arithmetic symbol (+ - * /) in the grid square that is to the right of the two squares you want to do the calculation on. For example entering a 2 in square A1 and a 3 in square B1, followed by a + sign in square C1, will result in a 5 in square C1.

The Graph tab above the spreadsheet opens a graph where you can plot trends of the data. You use this feature as you did for the spreadsheet above. In this view the date scroll bar has no effect since by default all data from the first time step to the current one is plotted. This can be changed by entering in the text box below the graph how many months you want to visualise (setting this to 0 will plot all available months). To clear the plot, click 'Clear' on the bottom right hand side. To return to the spreadsheet, click the Data tab. Each time you close this window all plots will be cleared.

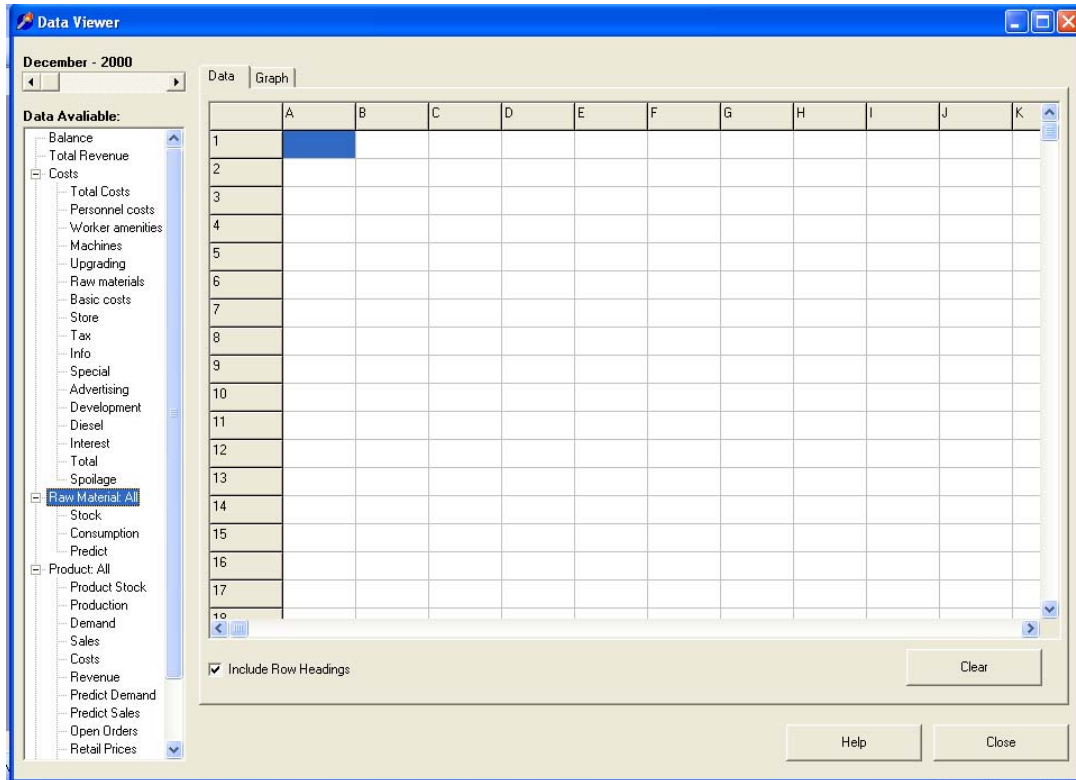


Figure 2. The View display

Production allows you to plan a) how much you want to produce, b) what kind of chocolate (dark chocolate, fruit flavoured chocolate, etc.) you want to produce and c) which and how many machines you want to use. To change the production on this screen a) first select the type of chocolate product on the right you wish to modify by using the list on the right hand side (Wholemilk, Dark, ect.) then b) select which machine (1-6) and c) which time of the week (for that machine) you wish to change, by clicking on the box in the main window. You can also change all the production for a given machine for a full week by clicking the box underneath the corresponding week.

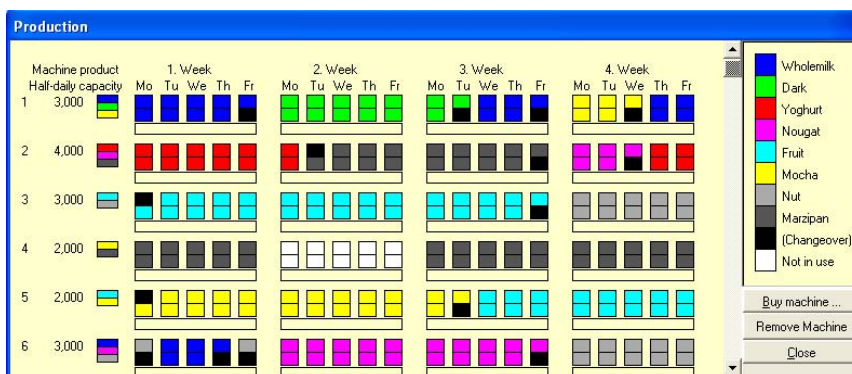


Figure 3. The Production view

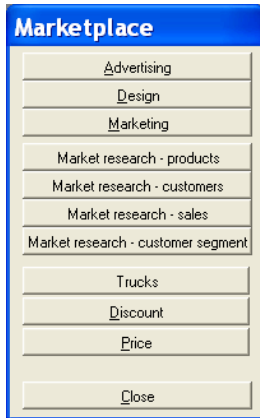


Figure 4. The Marketplace view

Marketplace allows you to a) choose several marketing options, b) view the reports of marketing research, c) set products prices, d) offer discounts and e) buy & sell trucks. This window is somehow counter intuitive so we describe some of the sub-windows.

Market Research allows you to view or request market research reports. Note that some market research costs money. You can see the amount that has been charged so far at the top of each market research screen. The cost of each is \$1500, with the exception of customer market research which is \$2000. You will not be charged twice for viewing several times market research reports that you have brought in the current month.

| Sales reps (10) | | |
|-----------------|-----------|-----------|
| area | old value | new value |
| QBD | | 0.43 |
| Kingsville | | 0.43 |
| Edwardstown | | 0.43 |
| Edinburgh | | 0.43 |
| Brighton | | 0.43 |
| Greenfields | | 0.43 |
| Newtown | | 0.43 |
| Redwood Park | | 0.43 |
| Wembley | | 0.43 |
| Kensington | | 0.43 |
| Westminster | | 0.43 |
| Seaforth | | 0.43 |
| Coolings | | 0.43 |
| Forestdale | | 0.43 |
| Redbank | | 0.43 |
| Mawson | | 0.43 |
| Longford | | 0.43 |
| Smithville | | 0.43 |
| Bridgewater | | 0.43 |
| Epping | | 0.43 |
| Summertown | | 0.43 |
| Stockport | | 0.43 |
| Henley | | 0.43 |

Old > New Set Close

Trucks Discount Price

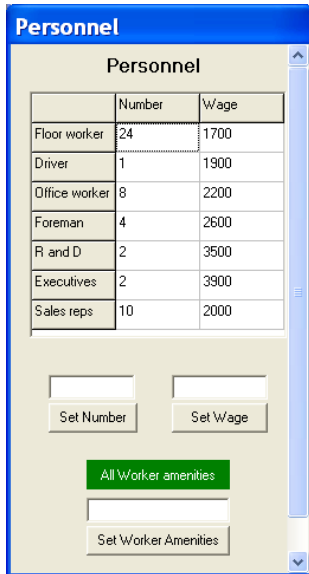
Figure 5. The Marketing view

Marketing allows to subdivide the effort of the Sale Representatives among several geographical locations (by default they are equally distributed).

Trucks allows you to buy or sell trucks.

Price defines the products selling price.

Discount defines products discount as percentage.



Personnel allows you to a) choose how many staff members to allocate to different functions, b) change their wages and c) provide ‘Worker amenities’, as incentives for better performance. This is a one-off action, meaning that it will not take effect each month rather just the one you have set it for. Clicking on the ‘All worker amenities’ label will fill the text box with the value you have entered in last.

Figure 6. The Personnel view

Raw Materials window allows you to purchase the raw material needed to produce chocolate. First click on a supplier (bottom right) and choose what item you wish to purchase. This will automatically display in the boxes in the middle left hand side. Now you can either a) “add it to orders” for a single purchase (this will move your order to the window on the top left or b) “subscribe” to purchase the same order every month. Note that for single purchases, after they have been added to the orders list, you need to click “Purchase!” or else the order will not take place.

Notice also the ‘Store’ window on the top right. It shows the amount of material currently stored. You have the option to dispose of any raw material; to do so first select the material and then click “Dump from the store”.

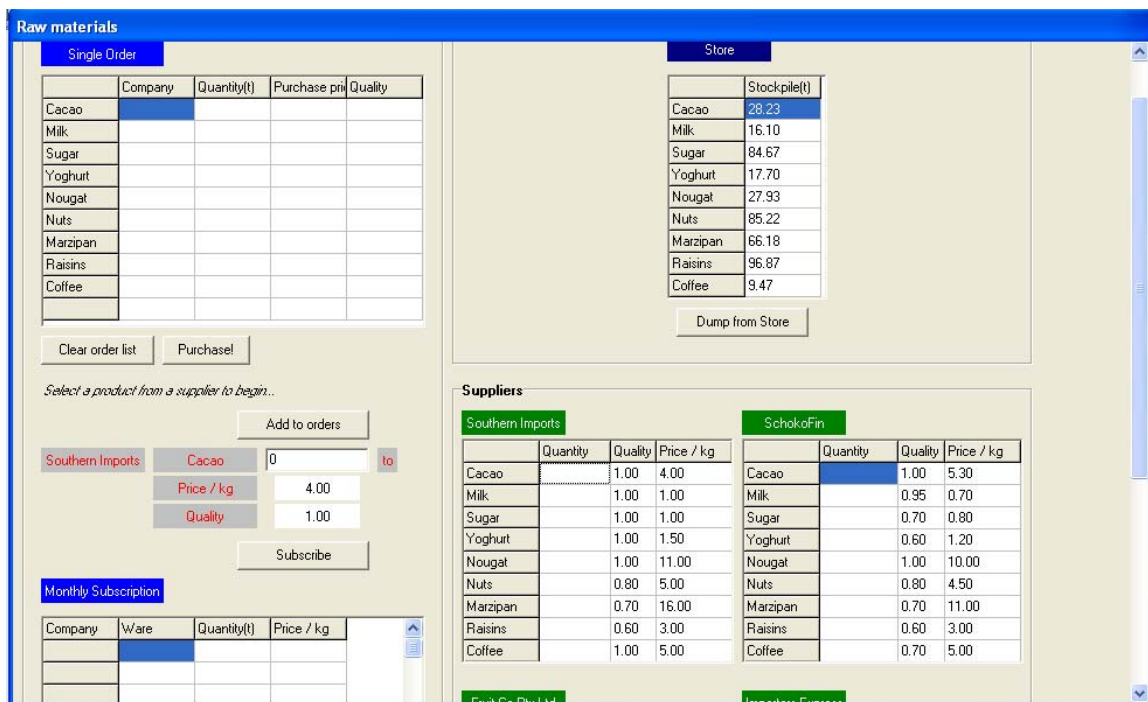


Figure 7. The Raw Materials view