

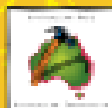
BIZWIZ

"The Computer
Manager"

22
Student
Worksheets



Business Simulation



Mac/Win CD

BizWiz – The Computer Manager

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www.rushsoftware.com.au
Australia

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Overview

Turn your students into the next Business Wizards with BizWiz!

BizWiz - The Computer Manager is a small business simulation that has been designed to introduce students to;

- Basic computer terminology
- Small business concepts
- E-commerce
- Computer hardware concepts
- Artificial Intelligence
- Spreadsheets
- Databases
- Computing Careers
- Problem Solving
- Internet concepts
- Consumer Arithmetic

Teachers will find it most useful in Primary/Elementary school as a vehicle for introducing computer concepts and in High school Commerce, Business Studies, Computing Studies and Design & Technology classes will be able to use the software at a range of levels and for a wide variety of concepts.

Technical Support

If you are experiencing any problems you can call, fax or leave a message on;

Web - www.rushsoftware.com.au
Email - rushsoft@bigpond.net.au

Remember to leave some details as to the problem and speak slowly when quoting your phone number. It is sometimes hard to reach you when you have classes or when we are at conferences, so if you don't mind us calling you at home please quote your home phone number and a suitable time (or better still use email). We are interested in what you have to say so be understanding if you don't hear from us straight away.

Hard Disk Installation

Macintosh - To install The Computer Manager on a Hard Disk, insert the Computer Manager CDROM in any drive and double-click on the CDROM icon. This will then display the Macintosh Programs folder along with a number of file icons, open it. Move the pointer over the Computer Manager icon and hold the mouse button down.

Whilst holding the button down, move the pointer to be on top of the hard disk icon and release the button. This "clicking and dragging" will copy the program onto your hard disk drive. Explore the other programs that are on the CDROM, there are many demonstration versions of other Rush Software programs, some are FREE but others require a REGISTRATION code which can be purchased from Rush Software.

If you would like to place the program in a particular folder, then you may do this by creating and naming a new folder and then dragging the Computer Manager icon onto it.

To run Computer Manager simply open the Computer Manager folder and double-click on the Computer Manager program icon.

Microsoft Windows

Start Windows ,Insert the CDROM into your D: drive (or possibly E:) If your computer auto-starts CDROMs a screen will appear displaying the programs that you can install.

Simply click the BizWiz - Computer Manager button and then the INSTALL button to start the process. Follow the onscreen directions to finish the installation.

You can install all the programs on the CDROM but they will **ALL** run in demonstration mode until you ***purchase*** and enter the correct registration codes.

NOTE: The Computer Manager code will only unlock that program, no other program on the CD.

If the CDROM does not auto start, do the following:

From the Program Manager select the File Menu and choose RUN. (Windows 95/XP users click on the START button and select RUN.)

Type D:\Bizwiz\Setup.exe and press Enter to start the installation

Follow the installation instructions and a new Program Group and icons will be installed in a folder called "Bizwiz".

Double-click the Computer Manager program icon to start or select Computer Manager from the Windows 95/98/2000/XP Programs Menu.

There are other programs on the CDROM that may be installed but will only run in demonstration mode until a registration code is purchased.

Registration

When running the program for the first time a Registration Window will give you the opportunity to enter your registration details. If you have a registration number (check the inside of the CD-ROM cover), enter your Name, School or Company and the REGISTRATION number and then click the REGISTER button. If you click the LATER/CANCEL button the Printing and Save features are disabled. To Register at a later time select REGISTER from the menu options.

Teaching Strategies

Students generally find a games a challenge and need little motivation to play them. Remember to set specific targets for each lesson. Structure the lessons with targeted demonstrations and use the worksheets to give direction towards your specific outcomes. If the worksheets don't suit your specific needs then you can easily modify them.


Consider making an overhead transparency or use a data projector and have the whole class participate in solving the problem in a cooperative group effort.


Try dividing the class into equal groups and have a competition to see which group can make the most profit.


Some of the worksheets are directed at off computer activities and homework research. Don't set these to be completed all at the same time but program them to be done at specific check points in the game.

If you come up with any other successful strategies please write to me care of Rush Software or our email address rushsoft@bigpond.net.au and let me know what has worked for you so that I can share your success with others.

Program Menu Options

 **New** - Clears the current game and resets the game parameters to default. If a game is in progress you will be given the chance to save your work.

 **Open** - You can open a saved game in a few different ways, from the menu option, double-clicking the saved icon or "drag and dropping" onto the program icon.

 **Save** - Saves the current game, the first time you will be prompted for a name.

Save As - Saves the current game under a new name.

Page Setup - Allows you to set the Page size. This will be automatically called the first time you print any worksheets.

Preferences - will appear in a different place depending on the Operating System and version you are using. You can check the Help Menu, Edit Menu, Apple Menu or the Finder Menu. The available Preferences are;

Screen Size - You can set the default screen size to 800x600 or 1024x768

Music - Toggle between random pick or play nothing at startup

Speech - Toggle the speech buttons to be visible or not

Easy Order Option - Selecting this allows students to simply enter the number of computers they would like to make rather than purchasing the individual parts and calculating the number of each part needed. Use this option to increase or decrease the level of difficulty for students.

The screenshot shows a web browser window titled "Purchasing" with "NetExplore Browser V4.2" in the title bar. The address bar shows "http://192.168.1.11/purchasing.html". The main content area is titled "Purchase Request Form" and contains the following elements:

- An "EASY ORDER" checkbox with a value of "0" in an adjacent input field.
- A table of components with the following columns: Item Name, Order Quantity, Item Cost, Required /Computer, and Current Stock.
- Input fields for "Available Capital" (set to \$20000) and "Production Potential" (set to 20).
- "Reset" and "Submit" buttons.
- A "Home Page" link and a "Close" button.

	Order Quantity	Item Cost	Required /Computer	Current Stock
Monitor	0	\$ 138	1	20
Power Supply	0	\$ 33	1	20
SIMMS	0	\$ 28	4	80
Printed Circuit Boards	0	\$ 99	3	60
Hard Disk	0	\$ 140	1	20
Floppy Disk	0	\$ 22	1	20
CDROM Drive	0	\$ 111	1	20
I/O Components	0	\$ 9	3	60

Worksheet Type - Select Junior or Senior to switch between to different worksheet sets. These worksheets are located in the DATA folder inside the TEXT folder and can be edited by the teacher to suit the class.

Animation Speed - Selecting Fast/Medium/Slow will effect the speed with which the Production and Sales icons appear.

Business Log - The log generated here by the game records all the special events that occur, such as Advertising, Hiring/Firing, Wage bill for additional staff, discussions with the Market Analyst and random events. You can also type your own notes in the notepad and save or print the text. The Log can be used for a range of activities including;

- Game Evaluation
- Report writing

Music - You can play any MP3 music file as background music for the game. To keep the control to a selection of music the teacher finds suitable for the classroom, only songs that appear in the Music folder inside the Application folder can be played. In the Preferences you can set the music to play

automatically at startup or to be selected from the menu (default). A selection of files come with the program.

Top Ten Companies - If you finish the game and your score is one of the top ten it will be recorded and displayed in this list. You will be able to print the Auditor's Report from this window also.

Worksheets

The worksheets that are built into the program cover a wide range of related computer topics. They are basically divided into 2 sections, worksheets that provide activities to familiarise yourself with the game and worksheets that cover broader computer related content.

The worksheet text files are located in the DATA folder inside the TEXT folder of the application. Teachers can modify the content or add to it but you are restricted to the worksheet menu labels. It is also important to remember each topic is separated by an asterisk * on a line of its own.

There are 2 worksheet files available, a junior one with simpler questions and a senior one which has more in depth questions in some cases.

There are 22 different Worksheet types. The first group revolve around playing the game.

- The Game
- Strategy
- Making Computers
- Staff and Services
- Production
- Sales
- Accounts
- Advertising
- Banking
- Log

The remaining worksheets are open to drawing in related computer material. It is really up to the teacher as to how in-depth the worksheet material goes

- Simulations
- Hardware
- Software
- Networks
- Systems
- Databases
- Spreadsheets
- Advertising
- Programming
- Web Design
- Careers

Help

Register - The first time you run the program you have a choice to Register or to try the program in demo mode. If you have a BizWiz registration code then entering it will unlock any disabled features. If you choose the Later button it will activate a 7 day demo during which time you can evaluate the program. You can Register the program at any time during the demo phase.

Feedback - A quick access to your email program so that you can email comments to Rush Software.

Web Support - A quick access to the Rush Software web site pages that support this program.

Version Check - Selecting this option requires an active internet connection. Once selected it will check the Rush Software web site to see if there are any updated versions to the program. If there are simply click the Download button and the update will arrive on your desktop. If nothing happens then the checking process can't get past your proxy server.



How To Play

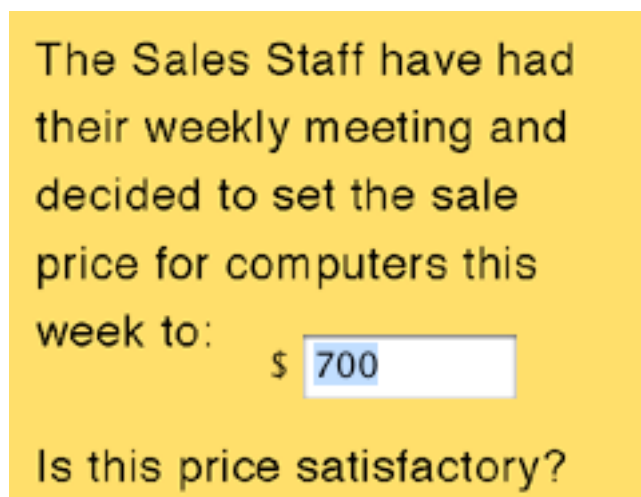
The following steps are the essential responsibilities that you must take care of as the Manager of your computer Company;

Produce Computers - The first order of business is to produce some computers. Of course you can't do this if you don't have any parts but the game starts off with enough parts to produce 20 computers. If we keep it simple and don't think about any other factors then you could just produce 20 computers by entering that figure in the Produce field and either press enter or click on the notice board which is your short cut to the factory floor. A screen will appear and you will see the computers being made. Unfortunately if all factors are not considered then some of your computers will fail to pass inspection. A failed computer is a costly mistake for the company. With more experience and observation you will be able to minimise this.



A screenshot of a game interface with a light blue background. It features three white input fields with black borders. The first field is labeled 'Production Potential' in red text above it and contains the number '20'. The second field is labeled 'Produce' in red text above it and contains the number '15'. The third field is labeled 'Stock' in red text above it and contains the number '0'.

Set the Sale Price - Now that you have some computers to sell you need to set a sale price that suits the market conditions. I won't give too many hints here as there is plenty of help available from your helpers in the game. Click on the **Conference** door and make a decision on what price you want to sell the computers at. Click on Continue and you will move to the Sales Centre where you can see how many computers are sold.



A screenshot of a yellow dialog box. The text inside reads: 'The Sales Staff have had their weekly meeting and decided to set the sale price for computers this week to:'. Below this text is a white input field with a blue border containing the number '700', preceded by a dollar sign '\$'. At the bottom of the dialog box, the text asks 'Is this price satisfactory?'.

Accounts - Use your laptop to check your accounts after your first weeks trading. Remember you are trying to make a profit which should happen after the first week as you didn't have to buy any parts. Make some observations about what expense are involved in the weekly production and explore where you can access these from your Laptop intranet access.

Accounting							
NetExplore Browser V4.2							
Location		http://192.168.1.11/accounting.html					
	1	2	3	4	5	6	7
A	Income						
B	Stock Sales	105600	267400	79800	65800	0	0
C	GST	10560	26740	7980	6580	0	0
D	Total	95040	240660	71820	59220	0	0
E							
F	Expenditure						
G	Hardware	566180	222500	87700	0	0	0
H	Wages	8872	14152	14152	14152	0	0
I	Advertising	4500	6750	0	4500	0	0
J	Rent	100	100	100	100	0	0
K	Interest	0	0	0	0	0	0
L	Misc	0	0	0	0	0	0
M	Total	579652	243502	101952	18752	0	0
N							
O	Profit / Loss	-484612	-2842	-30132	40468	0	0
P							

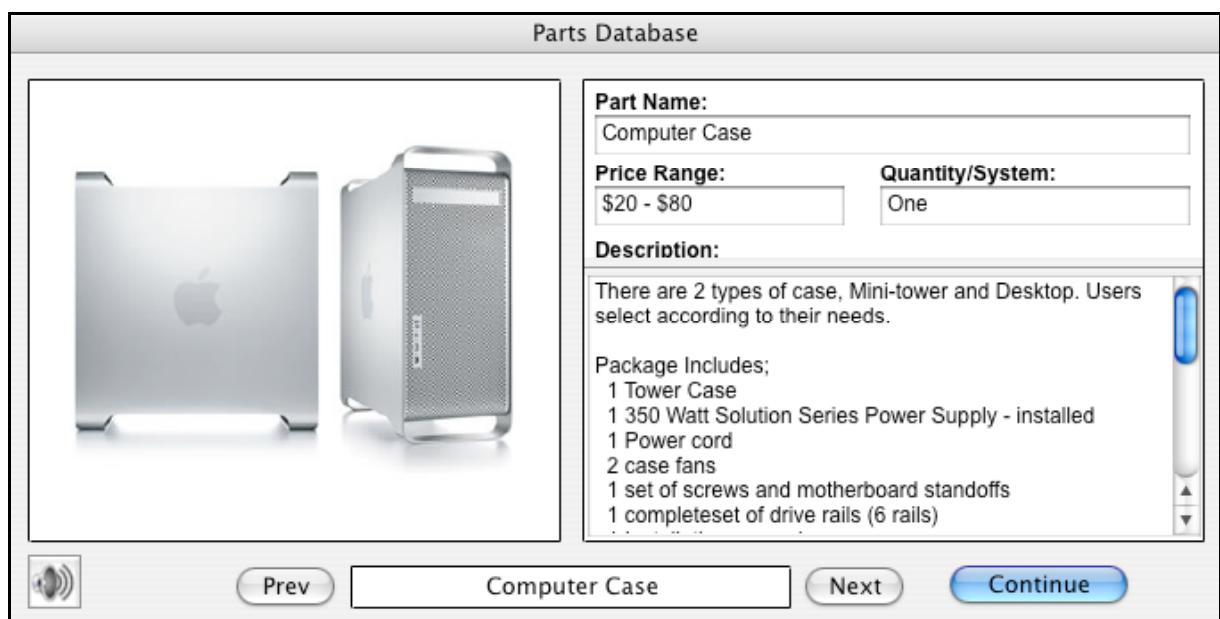
Home Page Save Close

Advertising - We are surrounded by advertising every day so it is no surprise that advertising should play a role in the number of sales you can make in a week. You can purchase 3 different types of advertising media, Radio, Television and Newspaper each costing a different amount and each having a different effect on sales. Try to advertise more when the trend is down.

Advertising	
NetExplore Browser V4.2	
Location http://www.fairfax.com.au/adrequest.html	
Advertising Request Form	
<p>Advertising at the right time of year can boost sales above your competition.</p> <p>When the market is slow, advertising will encourage more buyers into the store.</p> <p>Advertising while your production levels are low will have little effect.</p>	<p>Current Capital Balance <input type="text" value="309742"/></p> <p>Advertising Requested Units</p> <p>Radio \$50 <input type="text" value="0"/></p> <p>Newspaper \$100 <input type="text" value="0"/></p> <p>Television \$300 <input type="text" value="0"/></p> <p>New Capital Balance <input type="text" value="309742"/></p> <p style="text-align: right;">Reset Submit</p>
Home Page	Close

Staff Morale - It is a recognised fact that a happy staff work harder and make less mistakes so keep your staff morale high. What makes morale high is probably a little more complex than depicted in the program but wages and the amount of work they are being asked to achieve are the influencing factors in the game. Control these and the staff will be happy and morale will remain high.

Parts Database – The Parts database is purely an information display for students to look up and read about the some of the parts that make up a computer. The database is totally customizable, the graphic and the text can both be changed by the teacher/user. In the DATA folder there is a folder called IMAGES where you can put replacement part graphics as technology changes and a TEXT folder which has a file called “Parts Info.txt”.



Simple Playing Strategies

Some simple things to keep in mind are;

- Watch the market trend closely and don't produce too many computers for sale when the trend is going down.
- Don't carry too much stock.
- Buy parts when the market price is down and even sell them back when the price is high.
- If you are charging above the average market price, be prepared to spend money on advertising.

- Visit your helpers for hints to keep on track and in front of your competition.
- Check your balance sheet after each week and assess the decisions you have made.
- Repay your loan as soon as possible to reduce interest.
- Keep your staff Morale high.
- Make sure you have enough staff to produce the amount of computers entered, that is monitor your Production Potential

How The Simulation Works

'It's all about the money' is a saying often quoted when talking about business. That is true in a sense because if you don't have the capital you can't produce the goods but BizWiz uses a more complicate model than just build and sell.

The other factors in the game are;

Staff Morale - This is based on a ratio of total CurrentWageCost and CurrentCapital with a fudge factor(for unpredictability), and ranges from 0.0 to 1.0. The text description of the morale is just arbitrary based on the morale value.

Production - There are several factors that effect production: Staff Capability, Production Potential, Staff Efficiency and Production Percentage.

Staff Capability: The number of units that theoretically can be produced based on staffing levels. Morale is not figured in at this point

$$\text{CurrentStaffCapability} = (\text{ApprenticeStaffLevel} * 2) + (\text{ProductionLineStaffLevel} * 3) + (\text{ManagerStaffLevel} * 5)$$

Production Potential: The number of units that can be produced based on the parts inventory.

Staff Efficiency: The efficiency of the production staff based on CurrentStaffCapability and number of units requested. This is mainly used to allow insufficient staffing to affect Production. Production Percentage (Successfully Produced Units):

The number of passed units based on efficiency and morale.

$$\text{ProductionPercentage} = (\text{efficiency} + \text{morale}) / 2\text{No of Computers Sold vs Sale Price}$$

Number of Computers Sold is based on a Price Factor, Marketing Factor and Market Trends for that week

Price Factor:

The ratio of a fixed price point (set at 1200 right now) and the current unit price. A factor of > 1 means it's under priced, 1 means it's priced right and < 1 means it's over priced. The moral here is: price high when market conditions are good, less when they are bad.

Marketing Factor:

This is based on advertising ordered, a baseline advertising order and market conditions. If you spend more than the baseline order, you can improve your sales, but that is tempered by the inverse of the current market conditions. The worse the market condition, the more advertising helps. The moral is spend more when market is down.

Market Trends:

This is the current condition of the market for this week. 1 indicates great, 0 indicates terrible. The number of sales is the number of units in stock multiplied by a factor that is generated like this:

$$\text{factor} = (\text{Marketing Factor} + \text{Price Factor} + \text{Market Trends}) / 3$$

If the market is perfect, the price is right and the marketing is at the baseline, you'll sell out. The Market trends are never at one (or maybe at the Christmas season), so Marketing and Pricing must always be higher than one. It's always a choice between spend more for marketing or cut the price.

Online Support

Over time the Rush Software web site will offer additional resources to support the teaching process. We will happily add resources supplied by teachers using the program.

9. Computer Programming

The supplementary work below is designed to involve you in other aspects of computer and business systems while having fun playing the game.

The game you are playing is a computer program, written by someone with a specific intention. As complicated as it seems and with sufficient planning the program is put together by breaking the initial problem of writing the computer game into smaller more manageable problems. This Top-Down approach works for solving many problems but not all.

There are a number of programming problems withing the game that are interesting enough to examine on their own. By now you will have met Jane the secretary, always ready to answer you questions and give advice. This section of the program is based on "ELIZA". What is ELIZA, try seaching the internet for "ELIZA+programming"?

Discuss the meaning of the following statement in relation to the reasearch you have done on ELIZA.

"ELIZA has almost no intelligence whatsoever, only tricks like string substitution and canned responses based on keywords. Yet when the original ELIZA first appeared in the 60's, some people actually mistook her for human. The illusion of intelligence works best, however, if you limit your conversation to talking about yourself and your life."

Discuss in class the Algorithm for having a conversation, try flowcharting a solution. If you have done any computer programming before write a small program that revolves around a conversation.

10. The Internet & Web Page Design

The supplementary work below is designed to involve you in other aspects of computer and business systems while having fun playing the game.

The internet plays a big part of most businesses daily activities. Banking, Online Ordering Systems, Stock Reports, Email, Market Research to name a few. A web presence is must for most businesses especially one dealing with technology such as your computer company.

- A) Design a simple web site for your computer company. Include an Introductory page, About Page, Support Page and a products menu page that then has one link leading to a detailed description of one of your products.
- B) Design a page for an online ordering system. Examine a number of web sites that allow you to purchase online for ideas on layout. There may be some Templates that you can use depending on the software package you are using to create the page.
- C) You will notice that the laptop in the game is connected to the internet and intranet, what is the difference?
- D) What does the address <http://192.168.0.5/accounts> that you see in the laptop browser mean?

16. The Sales Phase

The supplementary work below is designed to involve you in other aspects of computer and business systems while having fun playing the game.

To sell your computers on the market simply click on the Conference Room door and set the price you want the computers to be sold at. Click Continue and you will be taken to the Sales Centre where the market forces will decide on how many of the computers you have available will be sold.

Price, Advertising and the Market trend all have influences on how many will be sold.

Activity: How do you determine the price to sell? Try guessing, enter a high price and see how many you sell. Next try a low price and make another observation. Write down your results. Now for each week check the profit made by clicking on the Laptop and going to Accounts, write down your observations.

Activity: Discuss in class each of results of the above activities.

Activity: Answer the following questions

- How do decide on a price to sell that will allow you to make a profit?
- What is the relationship between Price and Advertising?
- What is the relationship between Price and the Market Trend?
- What is the relationship between Advertising and the Market Trend?

Your performance has been audited by independent Accountants. Following is a summary of their findings, a rating and some recommendations.

AUDITOR'S REPORT

Sunday, 7 March 2004

Game Status: Bankrupt!

Weeks survived: 2/52

Company Worth: \$ -1056

Company Position: 7th

Final Staff Level: 6

Final Staff Morale: Okay

Audit Rating: 1 Star *

Auditor Comments:



You sent your company BANKRUPT!! As the Manager you must take responsibility for the poor performance. The Board of Directors and the Shareholders are asking for your resignation.

Your company was ranked 7th amongst the competition at the time of your bankruptcy. Your position means nothing if you can't manage your funds..

The company did not grow under your leadership. Staff levels were static. The staff morale was Okay but a more highly motivated staff could have boosted production. Performance rating 1 Star *.

Write your Company Evaluation and Comments below:
