

BITE

Pandora





The BITE Team - 95/96

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NOTE:

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Brief History of BITE

The BITE (Business education in Information TEchnology) project is part of a £40 million programme to encourage the use of technology in teaching and learning in the higher education sector. This initiative is known as the Teaching and Learning Technology Programme (TLTP) and has been funded by the four Higher Education Funding Councils in the UK.

The acceptance of the BITE proposal presented the opportunity to develop high quality courseware oriented to the needs of the UK higher education community with possible benefits world-wide especially where accounting or business tertiary education is conducted in English.

Business education represents an important area for the development of courseware. A significant number of UK students (approx. 30% in higher education) study some elements of business disciplines and business itself is the major user of IT. The development of courseware in this area harnesses the potential of IT to optimise subject teaching and learning whilst providing an opportunity for students to gain transferable skills and more IT experience.

The BITE courseware has been developed by a multi-disciplinary team of computing, educational design, design and subject specialists assembled across four UK Universities and supported by an advisory group of twenty-one other institutions of higher education across Britain. Thus it contains the material lecturers want their students to understand without simply supplying them with an 'electronic page turner'.

The primary objective of BITE has been to develop student centred materials for the study of numerate business decision making, primarily focusing on the accounting, finance and quantitative aspects. The software provides six modules which are usually associated with first year, general and professional syllabuses. It aims to enhance the quality, thoroughness and speed of student learning by enabling students to manage their own learning experience.

The emphasis on student-centred development has included the practicalities of a mobile and unstructured life. As a result the material can be run on affordable personal hardware (laptops) as well as the more usual platforms. The courseware generates self assessment tasks based on the material which has just been studied and includes automatic marking facilities for the assessments. The courseware is also very user friendly and eliminates the need for prior student computer knowledge and no prior knowledge of the subject concerned is assumed.

Metaphor explanation

The BITE software has been developed following an innovative approach to CBL conceptualisation and design. The design team have produced student-oriented courseware which is fun to use. This offers an alternative to the book metaphor whilst using low technology for the delivery.

The software provides a graphical means of teaching accounting material through the use of the Pandora's Box metaphor or theme. The student is presented with a business plaza into which Pandora's monsters escape. The monsters must be recaptured, and in doing so, the student can explore the plaza and learn about the business and contents within. The software offers continual assessment as the student progresses through the modules. Pandora's monsters can only be recaptured once the student understands the content and completes the questions successfully.

The choice of the Pandora's box metaphor was made after extensive testing of several alternative metaphors. Research has shown that a metaphor facilitates the acceptance of materials by the non-technical. Initially six metaphors were investigated and tested to show how they could support the content, offer different navigational and pedagogic opportunities and give potential for graphic design.

After evaluation of the six metaphors, it was agreed to develop two of these as prototypes so that a more educated choice could be made for the courseware development. Pandora's box was chosen because it offered the opportunity for a variety of different businesses to be perused when situated in a shopping plaza. The shopping plaza contains three creatures which have escaped from Pandora's box. The creatures are used to give a visual indication of the level of content being studied at any time so that a student can cover the basic material before moving through the intermediate and advanced content.

Pandora's box offers three different navigational modes within the courseware and this allows the student to choose to explore the material in the manner which matches their expectations of a learning experience. The first two modes of navigation use the metaphor and the final mode uses a content map.

The first mode of navigation directs the student to follow a creature through a level of content. In this mode of navigation the creature appears with different think bubbles which indicate the items within a shop which should be investigated. Along the way, the student has to apply the knowledge they have gleaned by attempting self assessment questions which are automatically marked. Once they have covered all the material at a certain level, the creature disappears and becomes trapped back inside Pandora's box.

The second mode of navigation is exploratory. The student investigates the different shops within the plaza following personal whim, and with no help from the escaped creatures. Within this mode content can be accessed in random order. In effect, the student is dipping in and out of different areas of the subject matter and using self determination to decide what to study next.

The third mode of navigation leaves the metaphor behind completely and presents the student with a map of the layout of the content. The student is able to choose which topics to study by following the content's structure from the content map. The content maps appear in Appendix 3.

How The Software May Be Used

As Base Materials

It is envisaged that the BITE software will not completely replace student tutor interaction, but can be used as a tool to facilitate the learning process. The best way of integrating it into your course is as an underpin to the interactive process of seminars and case studies.

Students may be given modules of the material to work through and learn over specified time periods, thus replacing or supporting the usual lectures upon which deeper work is built.

They may then be asked to use the knowledge they have gained in an applied way, by case study or practice work in seminars. In this way you, the tutor, can localise the material to your own course needs and objectives.

For Remedial Work

Sometimes students, particularly those who are from non-specialist cohorts, may have difficulty grasping the concepts you may communicate in your lectures. This is where BITE can offer a fresh new perspective. By communicating material in a friendly and less intimidating way it offers the student who may be having problems the opportunity to work through difficult areas at their own pace and in private, so that their difficulties are not seen by their peers. Further, it may be given to students to reinforce material on your courses as an additional student-centred resource which offers them a fall-back position for extra confidence.

For Revision Work

BITE offers a map mode for easy access to material. It is envisaged that students who may already be familiar with the material can dispense with the metaphor in order to access the material relevant to their needs directly. This offers you, as the tutor, the opportunity to supplement revision classes you may be giving so that the student can repeat problematic material at their own pace to reinforce learning.



This is the opening screen in Pandora. It shows the name of the module you have entered and gives a basic overview of the material which will be covered in the chosen module. Beneath this is a blue bar containing six buttons and three recessed bars.



This is the help button and should be pressed the first time you enter the software to give an explanation of how to use the multimedia navigational facilities. It also offers a detailed walkthrough which illustrates how to navigate through the plaza. This button is only active when the plaza mode of navigation has been selected.



This is the glossary button and when pressed it offers a glossary of accounting terms.



This is the button which shows the top level content map for the module currently being studied. This button is only active when the map mode of navigation has been selected.



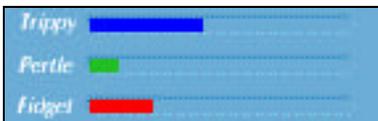
This button is used to initially enter the plaza. It also returns you to the centre of the plaza when pressed during creature navigation. It is only active when the plaza mode of navigation has been selected.



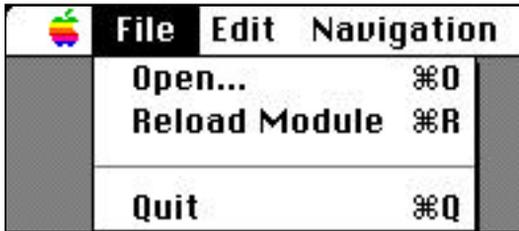
This button returns you to the security room. It is only active when the plaza mode of navigation has been selected.



This is the button which returns you to your previous position before the last move was made.



This is the creature indicator bar. It gives an indication of how far through the material you are at any one time. The creatures are explained when the help button is pressed.

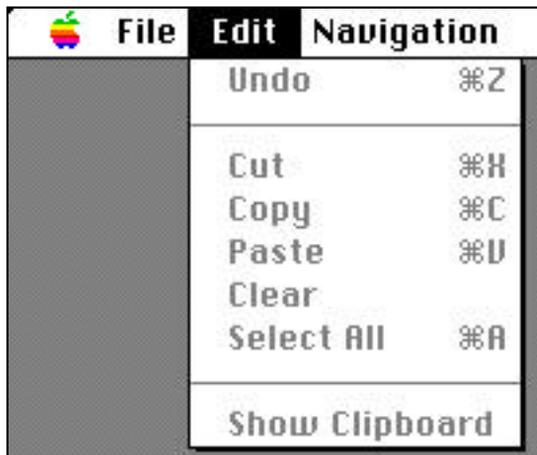


The File menu contains the options shown above.

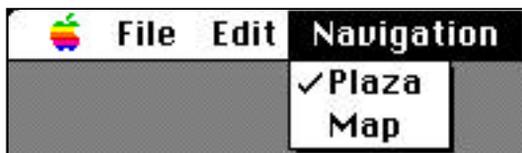
Open can be selected to open a different module.

Reload Module returns the creatures to their start position so that you can start again.

Quit exits the software.



Edit This is not implemented.



Plaza activates the plaza mode of navigation.

Map activates the map mode of navigation.

Navigational Modes

Plaza Mode



The normal method of navigation will be the plaza mode. This allows you to follow the creatures through the content in a logical order. To initially find the creature attached to the level of content you are studying, you can look in the individual rooms within the plaza by clicking on their doors or windows.

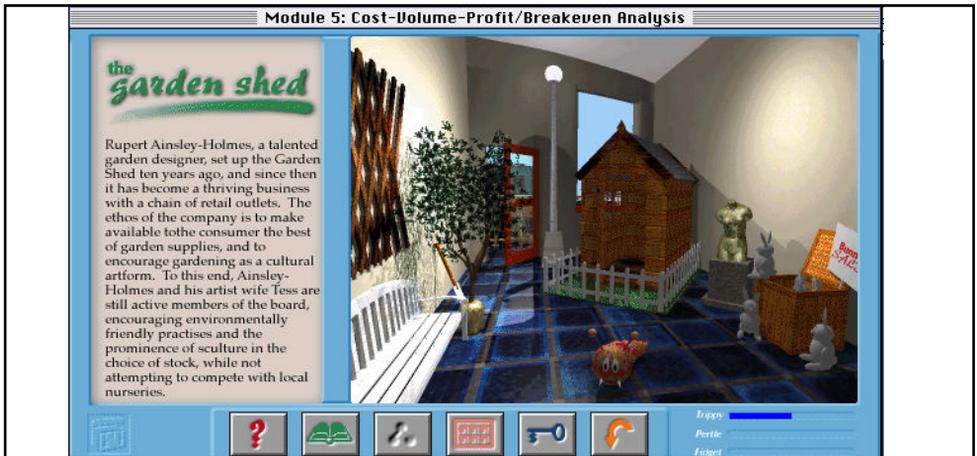
Alternatively, you can use the security room. To enter the security room, click on the security room door or press the security button.



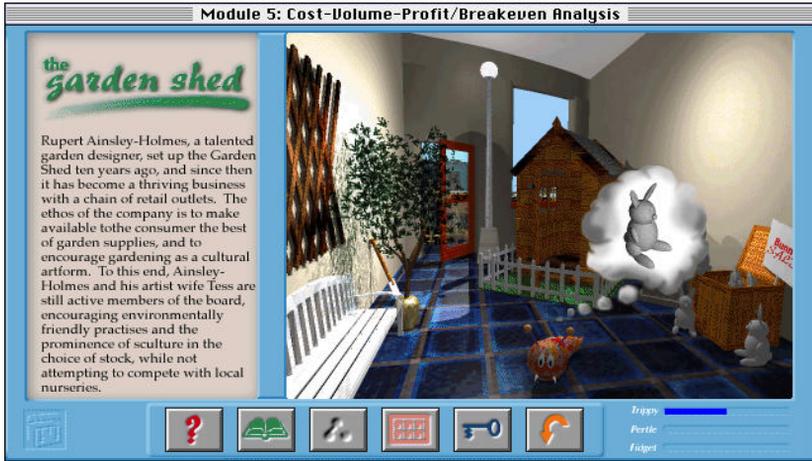
The security room contains a copy of the module outline shown at the start of the module. Click on the piece of paper on the left hand side of the desk to see this clearly.

The console in the centre of the desk shows the layout of the plaza. Highlighted rooms contain content for the loaded module. Roll the cursor over the console and it will display the contents of each room on the monitor. When you see the creature you are looking for, click on that room on the console and you will then enter it.

The console in the centre of the desk shows the layout of the plaza. Highlighted rooms contain content for the loaded module. Roll the cursor over the console and it will display the contents of each room on the monitor. When you see the creature you are looking for, click on that room on the console and you will then enter it.



Each room contains a business scenario. These are contained in Appendix 4. The scenario is in view in the left hand panel when you enter the room. To see a summary of the business, roll the cursor over the business logo in the left hand panel.



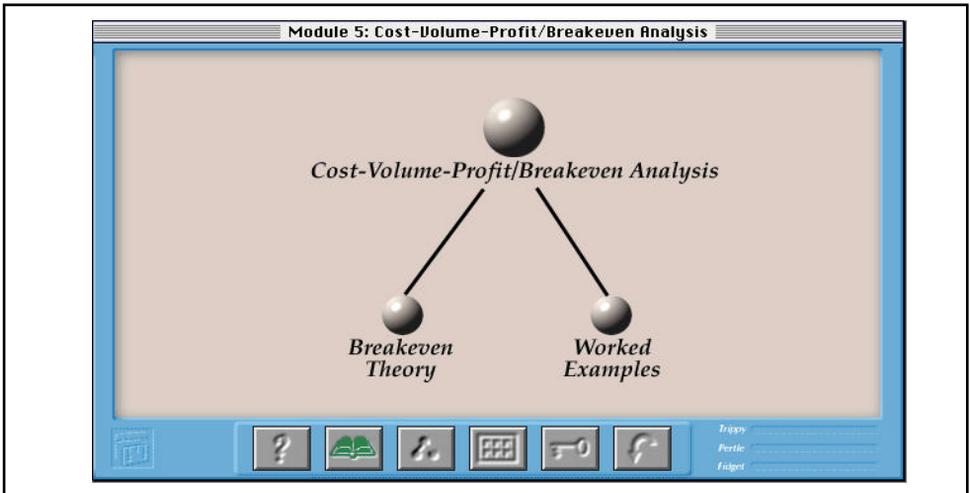
The creature in the room will now indicate where the first piece of content is located. Roll the cursor over the creature and a think bubble will appear. Find the object the creature thought of within the room and point at the item. A map will appear in the left hand panel showing how the content is laid out behind the object.

Now click on the object. This will display the first piece of content which was illustrated but the content map. Once you have covered all the content held behind the object, press the Back a Stage button to return to the room. The creature's indicator bar will have started to fill in. This indicates how much of that creature's content has been covered and how much is left to see.

The last object in each room contains an assessment question. Once this question has been answered, the creature will disappear. Now return to the security room to find where the creature has moved to or enter each room from the plaza to find the creature.

When the creature indicator bar has filled in completely, all the content relating to that creature will have been covered. Click the plaza button and click on the chest in the plaza. The creature will have been captured in here.

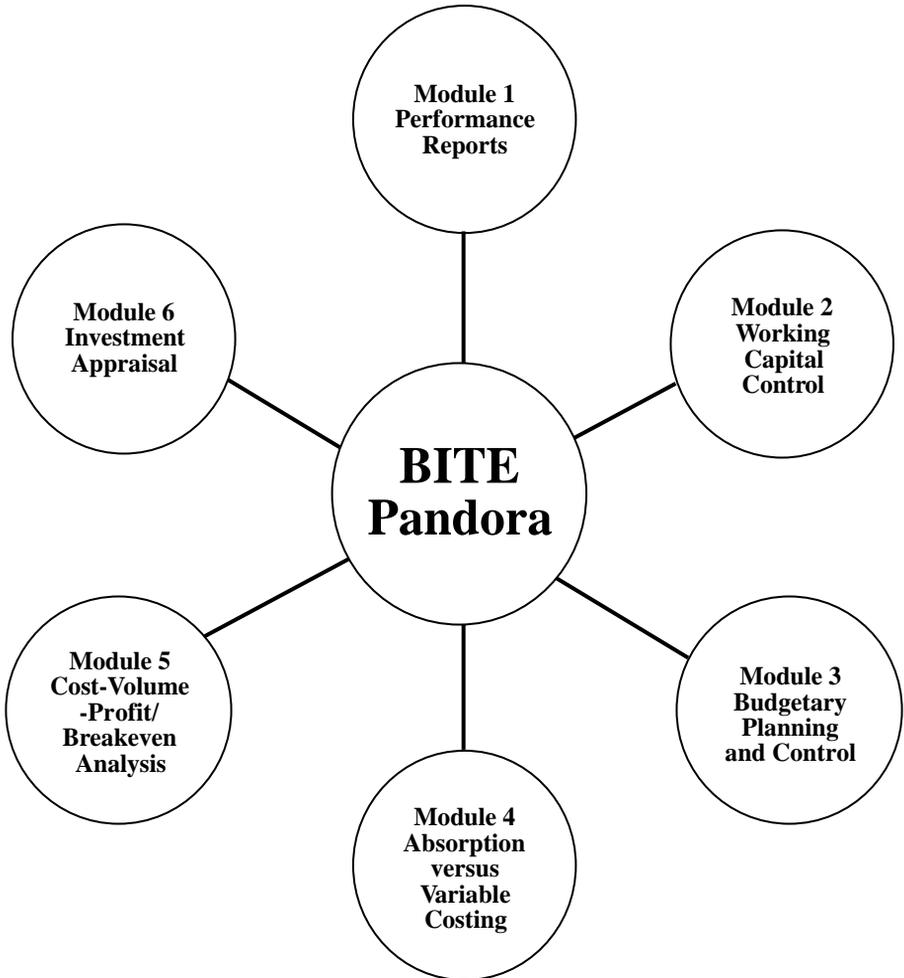
Map Mode



The map mode is an alternate mode of navigation. It allows you to see the structure of the material within the module before you study anything. This is very useful for revision purposes.

Point and click on the circle beside the piece of content you are interested in. This will then take you to a lower level content map or to a piece of content. The Back a Stage button returns you to the content map at the previous level. The Map button returns you to the top level content map.

Appendix 1 : Module Structure Map



Appendix 2: Breakdown of Module Content

Module 1:

Performance Statements

Overview

Concept Of Duality

The Accounting Equation

Major Users

External Stakeholders

Internal Stakeholders

Basic Language / Level 1

Profit And Loss Account

Proforma

Terminology

Sales

Cost Of Sales/Cost Of Goods Sold

Gross Profit

Indirect Expenses

Net Profit

Worked Example

Balance Sheet

Proforma

Basic B/S Proforma

Detailed B/S Proforma

Terminology

Fixed Assets

Current Assets

Current Liabilities

Working Capital / Current Assets Less Current Liabilities / Net Current Assets

Total Assets Less Current Liabilities / Net Assets

Long-Term Liabilities

Capital

Profits

Losses

Drawings

Proprietors' Funds

Worked Example

Basic Language / Level 2

Limited Liability Company Accounts

Introduction

Pro-Forma Trading And Profit And Loss Account

Pro-Forma Balance Sheet

New Terminology

Tax

Dividends

Reserves

Worked Example

Manufacturing Company's Accounts

Introduction

Manufacturing Account Proforma

New Terminology

Worked Example
Appraising Financial Statements
Overview
Guided Example
Performance Ratios
Percentage Return On Capital Employed
Introduction To Ratio
Why Profit Before Interest And Tax?
Calculation Of Ratio
Net Profit Margin
Introduction To Ratio
Calculation Of Ratio
Asset Turnover
Introduction To Ratio
Calculation Of Ratio
Gross Profit Percentage
Introduction To Ratio
Calculation Of Ratio
Liquidity Ratios
Current Test
Introduction To Ratio
Calculation Of Ratio
Acid Test
Introduction To Ratio
Calculation Of Ratio
Management Efficiency Ratios
Fixed Asset Turnover
Introduction To Ratio
Calculation Of Ratio
Stock Turnover
Introduction To Ratio
Calculation Of Ratio
Debtors Turnover
Introduction To Ratio
Calculation Of Ratio
Creditors Turnover
Introduction To Ratio
Calculation Of Ratio
Long-Term Solvency Ratios
Gearing Ratio
Introduction To Ratio
Calculation Of Ratio
Debt/Equity Ratio
Introduction To Ratio
Calculation Of Ratio
Interest Cover
Introduction To Ratio
Calculation Of Ratio
Tutorial Example
Performance Ratios
Percentage Return On Capital Employed
Introduction To Ratio
Calculation Of Ratio

Net Profit Margin
Introduction To Ratio
Calculation Of Ratio
Asset Turnover
Introduction To Ratio
Calculation Of Ratio
Gross Profit Percentage
Introduction To Ratio
Calculation Of Ratio
Liquidity Ratios
Current Test
Introduction To Ratio
Calculation Of Ratio
Acid Test
Introduction To Ratio
Calculation Of Ratio
Management Efficiency Ratios
Fixed Asset Turnover
Introduction To Ratio
Calculation Of Ratio
Stock Turnover
Introduction To Ratio
Calculation Of Ratio
Debtors Turnover
Introduction To Ratio
Calculation Of Ratio
Creditors Turnover
Introduction To Ratio
Calculation Of Ratio
Long-Term Solvency Ratios
Gearing Ratio
Introduction To Ratio
Calculation Of Ratio
Debt/Equity Ratio
Introduction To Ratio
Calculation Of Ratio
Interest Cover
Introduction To Ratio
Calculation Of Ratio

Module 2:

WORKING CAPITAL CONTROL INTRODUCTION
SOURCES OF BUSINESS FUNDS
EQUITY CAPITAL
LOAN CAPITAL
RESERVES
Reserves as retained profit diagram
Source of business funds diagram
APPLICATION OF BUSINESS FUNDS
Fixed Assets
Working Capital
Period Expenses

Business expenditure diagra
Summary - Money Invested
Money invested diagram
Scales diagram
Money Invested versus Money Consumed
Expenditure classification diagram
working capital analysis
CONTENT OF WORKING CAPITAL
The Working Capital Cycle
Definition - working capital cycle
Working capital cycle diagrams
Working capital cycle - worked example
WC Investment diagrams
Summary
COMPONENT PARTS OF THE WORKING CAPITAL CYCLE
MANAGEMENT OF STOCKS
Introduction
Stock diagram
Classification of stock holding costs
Opportunity cost of capital tied up
Ordering Costs
Stock-out costs
Stock handling costs
Holding costs
80:20 RULE
LEAD-TIME
MANAGEMENT OF DEBTORS
Introduction
Debtor diagram
The costs of granting customers credit
Administrative costs
Opportunity cost of capital tied up
Bad debts
The credit control department
Introduction
CUSTOMER ASSESSMENT/choosing your customers
CUSTOMER BILLING
ACCOUNTING PROCEDURES
FOLLOW-UP /speeding up payments
SUMMARY
MANAGEMENT OF CREDITORS
Introduction
Creditor policy considerations
goodwill
accounts payable department
computers
MANAGEMENT OF CASH
Introduction
Profit is not the same thing as cash!
Why should business's forecast future cash flows?
CASH FLOW FORECASTS
CONSTRUCTION OF CASH FLOW FORECASTS
Proforma Cash Flow Forecast

Worked Example - Question
Worked Example - Solution
Points to note question
Worked Example - Sensitivity Analysis
Proposal 1 - Solution
Proposal 2 - Solution
Graphical depiction of solutions

Module 3:

Budgetary Planning And Control
Planning
Planning Horizons
The Strategic Level
The Tactical Level
The Operational Level
Advantages Of Budgeting
Co-Ordination
Communication
Planning
Control
Motivation
Performance Evaluation
Basic Budget Terminology
A Budget
Budget Period
Budget Manual
Budget Committee
Budget Officer
A Responsibility Accounting System
Types Of Responsibility Centre
Cost Centres
Revenue Centres
Profit Centres
Investment Centres
Principles Of Budgeting
Quantifiable Budgetary Objectives
Disaggregated Objectives
Goal Congruence
Employee Acceptance
Feedback
Responsibility
Flexibility
Management Participation
The Budgeting Process
Define Organisational Objectives
1. Return On Capital Employed.
2. Sales Turnover
3. Relative Market Share
4. Survival
Identify The Limiting Factor
Prepare Subsidiary Budgets
Sales And Associated Budgets

Methods Of Forecasting Sales
Associated Sales Budgets
Production And Associated Budgets
Worked Example
Associated Production Budgets
Raw Materials Cost Budget
Worked Example
Direct Labour Cost Budget
Production Overhead Cost Budget
Service Budgets
Policy Budgets
Worked Example
Worked Example Solution
Sensitivity Analysis
Worst Scenario Solution
Best Scenario Solution
Charts
2 Charts Relating To Sales Revenue
2 Charts Relating To Production Levels
2 Charts Relating To Purchase Costs
Prepare The Master/Summary Budget
Budgeted Profit And Loss Account
Budgeted Balance Sheet
Budgeted Cash Flow Statement
Review The Master Budget
Budgetary Control
Points To Note
Management By Exception
Potential Budgeting Hazards
Budgetary Slack
Goal Congruence
Motivation
Inflexible Attitudes
Incremental Budgets
Excessive Spending

Module 4:

Guided Example
Question
Scenario One
Scenario Two
Scenario Three
Results Summary Chart
Important Points To Note From Scenario One
Important Point To Note From Scenario Two
Important Point To Note From Scenario Three
Tutorial Example
Scenario One Solution
Scenario Two Solution
Scenario Three Solution
Results Summary Chart
Before And After Summary Chart

Absorption Costing Analysis
Variable Costing Analysis

Module 5:

Cost-Volume-Profit /Breakeven Analysis

Introduction

Geronimo Example

The Behaviour Of Costs

Fixed Costs

Fixed Cost Table

Total Fixed Cost Graph

Unit Fixed Cost Graph

Variable Costs

Variable Cost Table

Total Variable Cost Graph

Unit Variable Cost Graph

Total Costs

Total Cost Table

Total Cost Graph

Unit Cost Graph

Breakeven Point

Sales Revenue Table

Total Sales Revenue Graph

Total Cost = Total Revenue

Total Cost And Total Revenue Table

Total Cost = Total Revenue Graph

Geronimo Solution

Breakeven Arithmetic

Breakeven Level (Units)

Breakeven Formulae

Unit Contribution/Contribution Margin Per Unit

Profit/Volume (Contribution/Sales) Ratio

Breakeven Point (Units Of Sales)

Breakeven Point (Sales Revenue)

Target Profit

Margin Of Safety

Breakeven Charts

Construction Of A Breakeven Chart

Fixed Costs

Variable Costs

Total Costs

Sales Revenue

The Breakeven Chart

Construction Of A Contribution Chart

The Contribution Chart

Construction Of A Profit-Volume Chart

The Profit-Volume Chart

Guided Example

Answer Section

Answer Section Rollovers

Cost-Volume-Profit Graphs

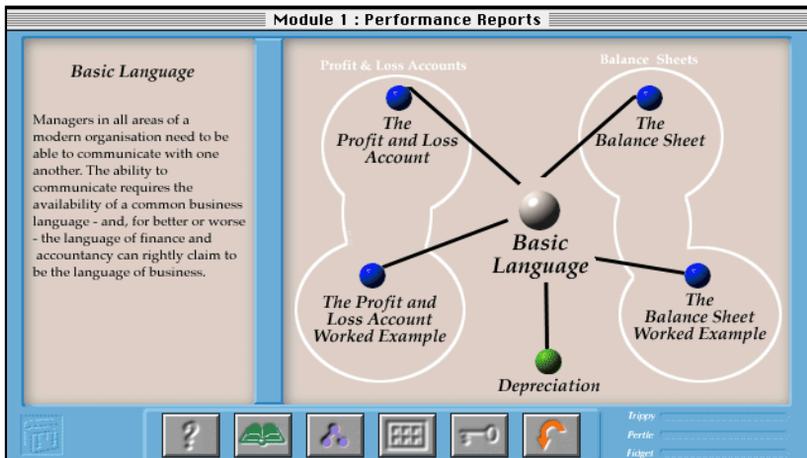
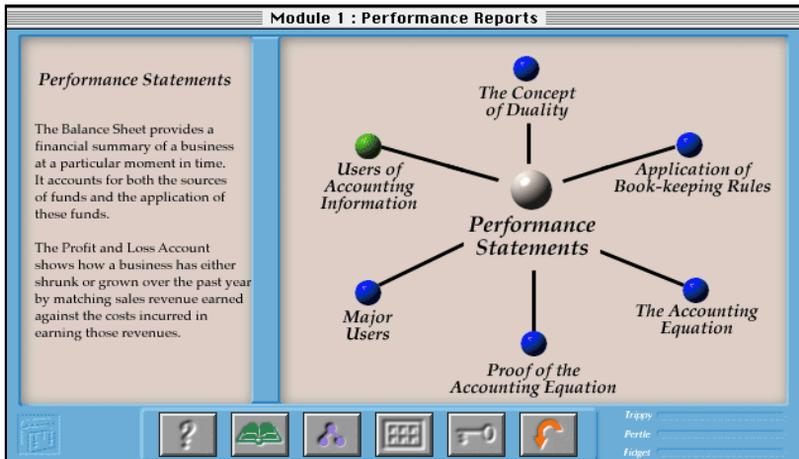
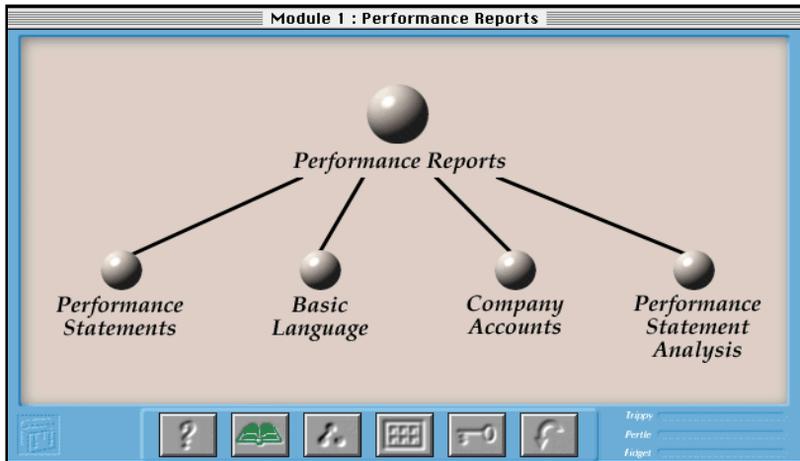
Breakeven Chart

Contribution Chart
Profit-Volume Chart
Tutorial Example
Tutorial Example - Scenario A Solutions
Cost-Volume-Profit Graphs
Breakeven Chart
Contribution Chart
Profit-Volume Chart
Tutorial Example - Scenario B Solutions
Cost-Volume-Profit Graphs
Breakeven Chart
Contribution Chart
Profit-Volume Chart
Tutorial Example - Scenario C Solutions
Cost-Volume-Profit Graphs
Breakeven Chart
Contribution Chart
Profit-Volume Chart
Tutorial Example - Scenario D Solutions
Cost-Volume-Profit Graphs
Breakeven Chart
Contribution Chart
Profit-Volume Chart
The Management Report
Unit Breakeven Point Summary Chart
Projected Net Profit / (Loss) Chart

Module 6:

Investment appraisal
Introduction
Review of principal investment appraisal methods
Guided example
Non-discounting methods
The payback method
The accounting rate of return (arr) method
Discounted cash flow methods
The time value of money
The mathematics of discounting
The net present value method
The internal rate of return (irr)method
Tutorial example
Solution to tutorial example
Project a
Project b
Project c
Tutorial example charts
Payback chart
Comment
Arr chart
Comment
Npv chart
Comment
Irr chart
Comment

Appendix 3: Content Structure Maps

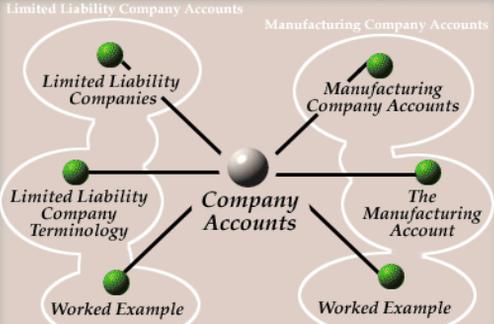


Module 1 : Performance Reports

Company Accounts

Limited liability companies are the most influential organisational form in terms of their contribution to global economic activity.

The law recognises such companies as separate legal entities which are subject to special rules as laid out in the various post-war Companies Acts.



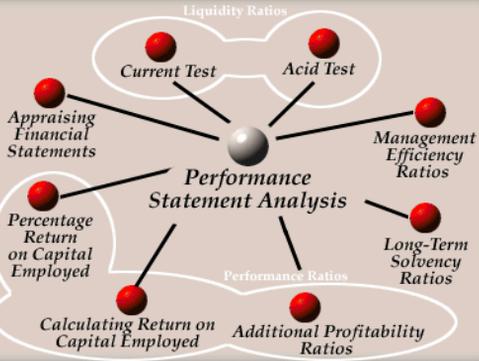
Trapp
Percle
Tugel

Module 1 : Performance Reports

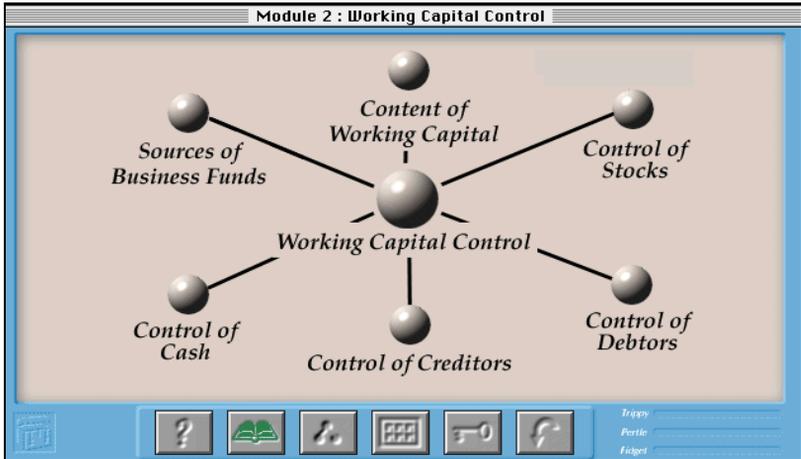
Performance Statement Analysis

An analysis of the financial statements will enable us to obtain information on the following four key business areas:

1. Profitability Performance
2. Liquidity Performance
3. Management Performance
4. Long Term Solvency Performance



Trapp
Percle
Tugel



Module 2 : Working Capital Control

Content of WC

Working capital is the amount of money needed by a business in order to trade or to carry out its manufacturing activities. Since working capital comprises the amount invested in the business in order to keep it ticking over it consists of cash, debtors and stock less creditors. (ie. current assets less current liabilities)

Content of Working Capital

Working Capital Analysis

Working Capital Cycle Illustrated

Working Capital Worked Example

Tricky _____
Puzzle _____
Eidget _____

Module 2 : Working Capital Control

Control of Stock

It is important not to tie up excessive amounts of capital in stock. Money which is needlessly tied up in stock represents a drain on vital cash resources and it is often identified as the reason for the poor liquidity performance of businesses.

Control of Stocks

Management of Stocks

Classification of Stock Holding Costs

Lead Time

Tricky _____
Puzzle _____
Eidget _____

Module 2 : Working Capital Control

Control of Debtors

The majority of sales by non-retail organisations is on credit terms. A credit sale means that the firm issues an invoice at the point of sale and that debtor balances are recorded in the company accounts. The efficient management of debtors is of vital importance to the efficient overall management of working capital.

```

graph BT
    A[The Credit Control Department] --> B[Control of Debtors]
    B --> C[Management of Debtors]
            
```

Tippy: _____

Perfile: _____

Ediget: _____

Module 2 : Working Capital Control

Control of Creditors

Just as a business can shorten its working capital cycle by reducing the debtors turnover period, so it can achieve the same effect by lengthening its creditors turnover period. That is, a business will be able to operate with a smaller working capital investment if it is able to persuade its suppliers to grant them a longer period of time in which to settle their debts.

```

graph BT
    A[Management of Creditors] --> B[Control of Creditors]
            
```

Tippy: _____

Perfile: _____

Ediget: _____

Module 2 : Working Capital Control

Control of Cash

By planning and controlling cash flows a business can ensure that the cash flowing into the business (normally via sales revenue to satisfied customers) is sufficient to cover cash flowing out from the business (normally through purchases of required resources such as materials, wages and overheads).

```

graph TD
    A[Control of Cash] --- B[Management of Cash]
    A --- C[Cash Flow Forecast]
    A --- D[Worked Example Sensitivity Analysis]
    A --- E[Cash Flow Forecast Worked Example]
            
```

Tippy: _____

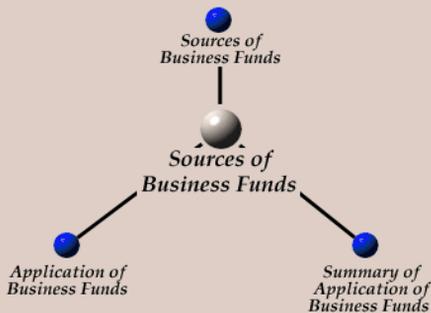
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Module 2 : Working Capital Control

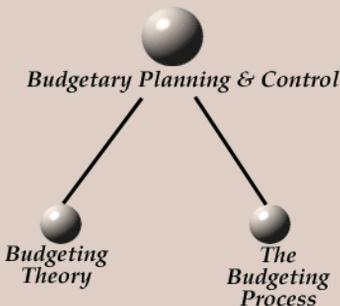
Sources of Business Funds

The three primary sources of business funds are equity capital (money originally invested by the owners); loan capital (money lent to the business on a long-term basis); and reserves (profits earned and reinvested in the business).



Tricky
Puzzle
Ezget

Module 3 : Budgetary Planning & Control

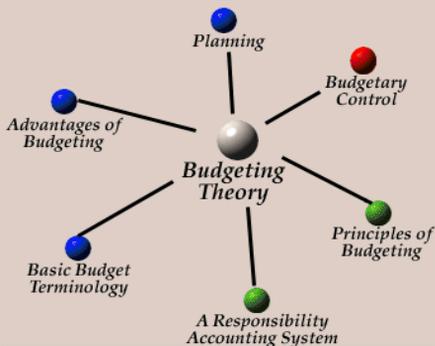


Tricky
Puzzle
Ezget

Module 3 : Budgetary Planning & Control

Budgeting Theory

The twin functions of planning the future of the organisation and then controlling its actual activities are critical ones in determining the performance of an organisation. The principal tool of short-term planning is called a budget and we shall concentrate here upon the important theoretical issues which underpins this vital area.

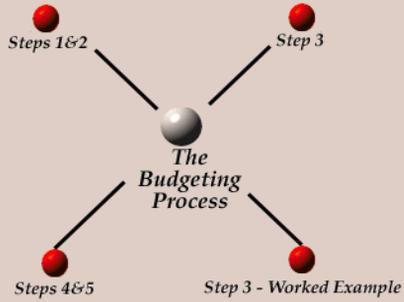


Tricky
Puzzle
Ezget

Module 3 : Budgetary Planning & Control

The Budgeting Process

The establishment of the annual budget can be an extremely time-consuming administrative task. The entire budgeting process can most easily be understood by breaking it down into a series of five logical steps.



Navigation icons: Home, Help (?), Open Book, Network, Grid, Key, Refresh. Progress indicators: Trippy, Pertle, Fidget.

Module 4 : Absorption versus Variable Costing

Absorption versus Variable Costing

Guided Example

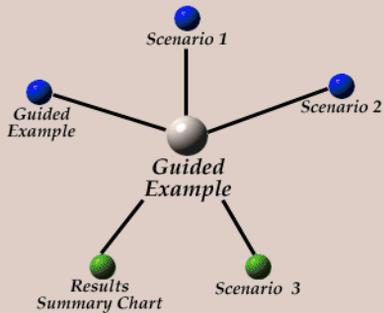
Tutorial Example

Navigation icons: Home, Help (?), Open Book, Network, Grid, Key, Refresh. Progress indicators: Trippy, Pertle, Fidget.

Module 4 : Absorption versus Variable Costing

Guided Example

We shall analyse the different systems of stock valuation and profit measurement which absorption costing and variable costing represent.

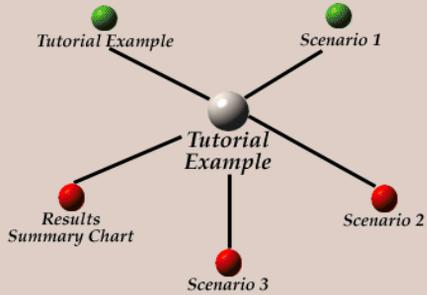


Navigation icons: Home, Help (?), Open Book, Network, Grid, Key, Refresh. Progress indicators: Trippy, Pertle, Fidget.

Module 4: Absorption versus Variable Costing

Tutorial Example

Now you should attempt the tutorial example in order to test your understanding of our two costing systems. You may find the kind of sensitivity analysis that this tutorial example requires can be more readily achieved by first constructing a programmed spreadsheet.



Navigation icons: ? (Help), Open Book (Home), Network (Navigation), Keyboard (Keyboard), Key (Search), Refresh (Refresh). User fields: Tricky, Pertle, Fidget.

Module 5: Cost-Volume-Profit/Breakeven Analysis

Cost-Volume-Profit/Breakeven Analysis



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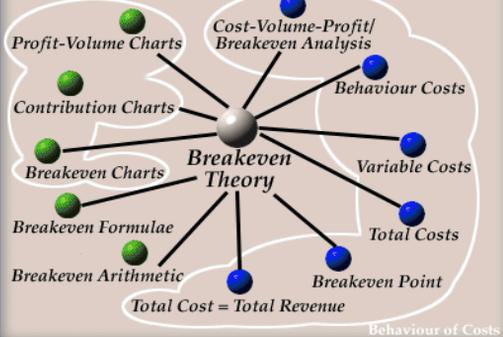
Module 5: Cost-Volume-Profit/Breakeven Analysis

Breakeven Theory

We can conduct simple breakeven analysis by adopting any one of three different approaches. The theory can be grasped by using

1. an arithmetical approach;
2. a formulaic approach; or
3. a graphical approach.

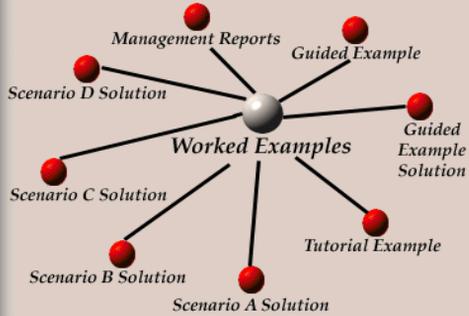
Breakeven Charts



Navigation icons: ? (Help), Open Book (Home), Network (Navigation), Keyboard (Keyboard), Key (Search), Refresh (Refresh). User fields: Tricky, Pertle, Fidget.

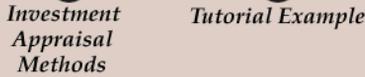
Worked Examples

A comprehensive worked example will test your understanding of the preceding content. Once again, you may find the kind of sensitivity analysis that these questions require can be more readily achieved by first constructing a programmed spreadsheet.



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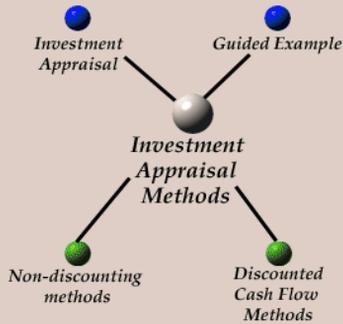
Investment Appraisal



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Investment Appraisal Methods

Investment appraisal decisions are primarily concerned with spending money wisely. They involve making an initial capital outlay now in return for an expected stream of net cash inflows in future years. We shall look at four common methods adopted by businesses in order to appraise any proposed capital investments.



Navigation icons: ? (Help), Open Book (Home), Person (User), Keyboard (Input), Key (Output), Refresh (Reset). Status: Trippy, Perle, Fudget.

Tutorial Example

A comprehensive tutorial example will test your understanding of the four investment appraisal methods. With regard to the two discounted cash flow techniques the user may find the mathematical functions available on most spreadsheet applications is a useful alternative to looking up mathematical tables of discount factors.



Tutorial Example



Tutorial Example



Tutorial Example Charts



Tipsy

Perle

Fidget

Appendix 4: Company Descriptions

November House

November House is a highly respected partnership of architects established ten years ago. There are four partners, and the practice has consistently grown in recent years. Creative talent is highly prized and this group brings its innovative approach to large and small projects alike. They have completed a number of large contracts with corporate clients amongst whom the Plaza itself is numbered, while maintaining a healthy supply of smaller contracts. These tend to be schemes such as barn conversions, home extensions, and small community projects and form the basis of the business's income.

Garden Shed

Rupert Ainsley-Holmes, a talented garden designer, set up the Garden Shed ten years ago, and since then it has become a thriving business with a chain of retail outlets. The ethos of the company is to make available to the consumer the best of garden supplies and to encourage gardening as a cultural art form. To this end, Ainsley-Holmes and his artist wife Tess are still active members of the board, encouraging environmentally friendly practices and the prominence of sculpture in the choice of stock, while not attempting to compete with local nurseries.

MediaMaker Manufacturing Company Limited

MediaMaker was set up in 1982 by the late Arthur Bennett, its first Director, as a manufacturer of magnetic storage media. With the computer revolution this quickly came to mean floppy disks, which became their principal source of income. Diskettes are now manufactured at their plant and sold to companies across the country. However, changes in technology are never far from the minds of the Board of Directors and a new departure into compact disc production is now being contemplated to ensure the company's long term competitiveness.

A Cut Above

Maxine Bell set up her own salon last year after ten years working for a major hairdressing chain. The usual services are provided. Maxine employs Wendy to help her with her lady clients and Paul who acts as the men's barber. Some regular clients came with her from her old salon but she is still busy building up her new client base.

Electronic Print Foundry

One of several branches of a limited company, the electronic print shop specialises in taking art work in digital form and making paper versions. These are then used to create plates for their own printing machines. However, recently acquired technology means that this can be done straight from the computer. A wide variety of printed matter is available to customers, from standards such as wedding invitations and business cards through to glossy brochures and full colour posters.

Bin Ends

Bin Ends was set up five years ago by wine enthusiast Patrick Brown as a sole trading business. He uses his international contacts to import wine from all over the world, and also acts as a retailer for British vineyards. He even has his own modest vineyard which produces fruity white wines for the Bin Ends label. The shop sells a variety of related goods such as corkscrews and cocktail-making equipment and the distinctive Bin Ends wine waiters linen apron.

Portlands of York

Portlands of York have been makers of fine furniture since 1789, although they have only recently moved their operations into the area served by the Plaza. With a commitment to the highest quality and classic design, furniture is manufactured to order on the premises. About half of the range supplied is reproduction furniture. The other half consists of new designs in keeping with more classic styles.

The Toy Box

The Toy box is the result of a long-treasured dream of an old lady, Mrs Ethel Crabtree, who found that making unusual toys for her grand-children grew into a thriving sole trader business. The original idea has expanded to encompass hand-made toys for children of all ages bought in from a variety of sources, but primarily under 'cottage industry' circumstances.

Langton Sports

Langtons is a recently established sole trader business which seeks to supply equipment for both popular and slightly more unusual sports. All the big name gear is available for tennis, football, rugby, squash, swimming and aerobics, with a full range of sports shoes and clothes. Langtons also supplies fishing tackle, boxing kit, and seasonal sports equipment - from skis in winter to surf boards in summer.

Coburn AV Services

Coburn AV Services is a limited company with a chain of retail and service centres in this area of the country. Over its first fifteen years the company has grown into a well-established and respected business which undertakes not only the sale of items of electronic and electrical equipment such as televisions and videos, but also their servicing and repair. Repair work is done on local premises and the company runs a small fleet of vans to make collections and deliveries.

Cycle Logic

Cycle Logic Engineering is a limited company supplying tailor-made bicycles of all kinds to its customers. Production takes place at the Plaza where clients come in to select materials and styles and to have measurements taken. From these, the company's employees are able to craft cycles to meet the most diverse needs and the highest standards. Some standard components are kept on site, others have to be ordered in from specialist suppliers. In some cases, the components are specially made by the company's skilled craftsmen. Finished products are delivered direct to the customer in the van.

The Studio

The Studio is a Limited Company supplying art materials such as paints, paper, brushes, pencils, pastels - in fact all the equipment and materials an artist is likely to need. In addition, a picture framing service is carried out by the owner and his staff and a wide range of prints are on offer. Goods are bought from wholesalers or direct from the companies who manufacture them but only a small stock is held since many items, such as paints, can perish quite quickly.

Hove and Barclay

Hove and Barclay are suppliers of quality new and used cars. They are a limited company established some years ago and have a special contract to supply new cars made by one particular manufacturer. Despite this the majority of sales are of used cars of different makes and Hove and Barclay have a particular reputation as dealers in unusual or classic vehicles.

The Corner Shop

Ron Hartley, with help from his wife Thelma, runs the grocers at the plaza. It is the only "open all hours" in the area so he is already doing a healthy trade selling dairy products, fresh fruit and veg, and all kinds of tinned and dry goods.