Exemplar Candidate Work

Contents

Introduction

This exemplar material serves as a general guide. It provides the following benefits to a teacher:

- Gives teachers an appreciation of the variety of work that can be produced for this unit

- Shows how the mark scheme has been applied by a senior assessor

It is important to make the point that the teacher support materials play a secondary role to the Specification itself. The Specification is the document on which assessment is based and specifies what content and skills need to be covered in delivering the course. At all times, therefore, this teacher support should be read in conjunction with the Specification. If clarification on a particular point is sought then that clarification should be found in the Specification itself.

Moderator's Commentary: G043 System specification and configuration

Total mark for portfolio: 42 (Max. 50)

This exemplar portfolio for G043 is based around a fictitious company called "Wee Promote" who specialise in producing different promotional ICT communications for clients throughout Europe. The candidate has defined user requirements and produced a specification for computer hardware, software and configurations which will help "Wee Promote" complete their daily tasks more efficiently. Practical work has been carried out, and a blank computer has had its BIOS setup and software installed including an operating system, utility and application software. The newly installed system has then been configured so it meets the needs of the client, including options being set within the operating system and the installation of macros, menus, toolbars and templates. Some testing has been carried out and documented, and practical activities confirmed by the assessor in the form of a personalised witness statement, which can be found at the back of the work (pages cw134/cw135). Reports to cover tasks e and f have been included within the evidence: one which focuses on safety and management issues, whilst the other describes some of the different aspects which need to be considered when developing software. The candidate has written two separate evaluations for task g, each focusing on one of the two requirements of the task. Writing two separate documents for this task ensures that all the required evidence is covered. Overall the evidence presented for this unit is suitable and has been organised in a structured manner making it easy to follow and assess.

Task a

This task requires candidates to identify and describe the main tasks which the client or user requires a new computer system to be able to perform. Descriptions should not only detail the task but also include some analysis by correctly identifying the types of data entering the system and being output during each task. Higher marks bands within the task require candidates to consider the hardware and software requirements for each task – these should only be generic recommendations and not a full system specification, which is the requirement for task b.

Work for task a, commences on page cw1 and finishes on page cw9. An introduction to the company and what it does would have made the work easier to follow, although this is not a requirement of the task, so should not be reflected in the mark awarded. Each task the client required the system to perform is stated in bold and then explained below. The data input and outputs for each task are identified although some are a little dubious and could have shown a better understanding. The hardware and software requirements of each task were generically identified – by doing this task by task it ensures none are missed out.

Due to the depth of description and complete identification of all required hardware and software the award of full marks can be justified even though some of the input / output identification is a little dubious.

Mark Band 3   **Mark Awarded: 6 (Max. 6)**

Task b

This task requires candidates to produce a specification for an ICT which meets the requirements of the user / client. The specifications should contain details of hardware, operating system and application software, along with details of how these should be configured. In addition to the specification, candidates are also expected to produce designs for macros, menus, templates and toolbars which could be created to improve the efficiency of application software for the user. For mark band 2 there should be sufficient detail for someone else to source, set up and configure the system. The specification produced will show a systematic approach to specifying an IT system by considering the specific user requirements and the software or hardware essential to meet these. For the award of mark band 3 the system specified will clearly meet all the user / client requirements. It will include full details of hardware, such as type, size and speed, as appropriate, and both operating system and application software, such as type, title and version. There will also be clear notes on how the system needs to be configured to meet the user requirements, such as the software icons required on the desktop, the directory (folder) structure and other software settings. The designs for macros, menus, templates and toolbars will consider the efficiency and effectiveness of the user / client and when produced would demonstrably improve these aspects.

Work for this task begins on page cw73 and includes a hardware specification, software specification, configuration requirements and detailed designs for macros, menus, templates and toolbars. Detailed information is given for all the key components required including a justification and possible alternatives if the recommended part is not available. A summary sheet is provided on page cw90 and quote on pages cw91/92 to ensure the recommended specification is within budget. A draft software specification is included on pages cw85-89. Although this is not required, the changes through annotation show ongoing evaluation, which is necessary for mark band 3 of task g. Detailed designs for 2 macros, 2 menus, 3 templates and 2 toolbars are included on page cw94/95. However, the designs of the templates could be clearer – some clarity has been lost during the scanning of the original plans but, even without this, it could be difficult for somebody else to fully implement the templates due to the size of the drawings. The system configuration on page cw93 has some good content but could detail more system settings suitable for "Wee Promote".

A mark in the middle of band 3 is appropriate for the evidence provided, due to the amount of detail and appropriateness to the client of the specification and the inclusion of fairly detailed designs and system configuration notes. For full marks more detailed configuration notes should have been included and clearer designs for the templates.

Mark Band 3   **Mark Awarded: 8 (Max. 9)**

Task c

This task requires candidates to carry out some practical work selecting, installing and configuring software to meet the needs of a client / user. All activities undertaken should be tested to prove that the system is functional. Candidates need to create test procedures to check each task undertaken which include details of the test to be carried out and the expected result. Tables need to be completed during the practical work with clear evidence of the results and, for any problems found, records of the steps taken to resolve the problems. For the award of mark band 3 all practical activities will be thoroughly tested and evidenced. More advanced configuration activities will be carried out including setting ROM-BIOS parameters and scheduling tasks to run automatically.

Evidence for this task can be found on pages cw10 - 72. The candidate has been given a blank computer which, before any installation can take place, requires the BIOS to be set. After successfully configuring the BIOS, a suitable operating system was selected from an available range and installed. After installing the operating system the candidate then carried out a series of configurations including locating and installing hardware drivers, setting up user accounts and ensuring the systems locality and languages were correct. An array of application and utility software has been installed all suitable for the client "Wee Promote", including antivirus software, which has been scheduled to automatically update and perform a daily scan. Although scheduling tasks through software is acceptable, it would have enhanced the evidence if the candidate had also scheduled tasks through the operating system. A log of work carried out and problems encountered can be found on pages cw67-69 and a test plan on pages cw70-72. The practical work has been authenticated with a personalised witness statement which can be found at the back of the work on pages cw134/135.

The comprehensiveness of all the practical work along with justification of the installation and configuration decisions would suggest a solid mark in mark band 3. However, the testing and evidence of solving problems encountered is weak. Best fit suggests a mark just in mark band 3, with more detailed testing and clearer evidence of solving problems required for the award of higher marks within the mark band - cross referenced screenshots would have enhanced the evidence provided. For mark band 3 candidates should test each configuration and piece of software installed fully to ensure it operates as expected and meets the needs of the user.

Mark Band 3   **Mark Awarded: 7 (Max. 9)**

Task d

This task requires candidates to implement the designs for the macros, menus, toolbars and templates which they proposed as part of the specification in task b. Suitable test procedures need to be documented proving that the customisation works. Mark band 2 requires candidates to install a toolbar layout, menu, template **and** macro to meet specific user requirements. There will also be clear evidence of testing procedures to ensure that they function as intended and a comparison of the actual results against those expected will be included. For the award of mark band 3 candidates need to use their own designs to create and install toolbar layouts, menus, templates and macros that demonstrably improve the efficiency of the user. There should be at least two of each, preferably in different software applications. Test procedures will be included for each item to show that they function as intended. A note justifying how each item would improve the efficiency of the user would help to confirm this.

Work for this task is on pages cw96 to cw116 and includes a range of macros, menus, templates and toolbars. The candidate has made both a toolbar and a menu in word processing and

spreadsheet software, which can be found on pages cw96 to cw97. Time has been taken to fully customise these with the design of consistent icons. Some notes are provided to show how each helps with the user's efficiency. Detailed testing is included on pages cw98 – cw109 with a test table being completed and evidence in the form of screen shots to back it up. Three templates have been included on pages cw110 - cw112, two for word processing software and one for a spreadsheet. All three show a consistent house style and an obvious transfer of skills from unit G040, as they are all of a good standard and would not look out of place within an organisation. Evidence in the form of a screen shot to show these are actually templates would be helpful. However, the macro code on page cw113 clearly references files saved as .dot, and .xlt which are common Office 2003 template files. A printout of the invoice template in formula mode would also have been useful to show which formulae had been used. The code for 13 macros, which the candidate has made, is shown on pages cw113–116. Some of these have been written by the candidate, rather than recorded. A nice touch is that the candidate has annotated the macro code, stating what each is for. The assessor has confirmed that the macros, menus, toolbars and templates work in a personalised witness statement on page cw135.

Although there are some omissions from the evidence most of these are minor and do not distract from the quality of the work, so full marks can be awarded for this evidence.

Mark Band 3   **Mark Awarded: 6 (Max. 6)**

Task e

This task requires candidates to write a report which makes recommendations for the safety, security and management issues related to using ICT systems. Possible ideas for content are included on page 39 of the course specification although other issues to consider could also be included. Structure, spelling, punctuation and grammar are assessed during this task so assessors need to take this into consideration when awarding marks. Candidates should include the ergonomics of furniture, work station layout, hardware and software in their recommendations and also consider management issues. For the award of mark band 3, the report produced will cover all of the issues listed within the specification in some detail. Some candidates may include content beyond the specification which, although is not required, does promote independent research skills. The report will also be well-structured with consistent use of headings and will contain no obvious spelling, punctuation or grammar errors.

The report for this task begins on page cw117 of the portfolio and covers the ergonomics of hardware, furniture, workplace layout and software. Each has a subheading so the content is clearly separated and the candidate makes good use of images to support the explanations given. An explanation of security and management issues begins on page cw120 covering most of the main issues although the explanations offered are rather brief and could have been structured in a more organised way. Taking all factors into consideration the work is almost worthy of mark band 3 but not quite, therefore a high mark in mark band 2 should be awarded.

For higher marks, more detail should have been included within the security and management section of the report and it should have been structured in a more organised way. Headings and subheadings should have been used more consistently, for example.

Mark Band 2   **Mark Awarded: 6 (Max. 8)**

Task f

This task is frequently misunderstood and requires candidates to explain the basics concepts of software development, listed on page 39 of the course specification, rather than the system lifecycle. Candidates need to show an understanding of programming language and syntax and comment on at least **three** of the concepts listed in the specification. For the award of mark band 3 candidates need to explain the concepts of programming languages and syntax and explain at least **three** of the aspects that need to be considered when developing software, with reference to specific examples.

The response for this task begins on page cw122 and includes: different examples of programming languages, some common syntax which is used, consideration of data being input, consideration of data being output, storage of variables, how data processing can be controlled and some thoughts on how to keep programs efficient. An example piece of annotated code is included on page cw124 showing an understanding of some syntax used within the modula2 programming language. Although more than 3 of the concepts from the list are covered some of the explanations are not entirely correct or in the context of developing software, therefore a mark at the top of band 2 is appropriate. For marks in mark band 3, all explanations should be within the correct context and use relevant examples to support the comments. Concentrating on just three of the concepts and writing about these in depth would be a better approach.

Mark Band 2   **Mark Awarded: 3 (Max. 4)**

Task g

This task requires candidates to evaluate the specification produced for task b in relation to how well it meets the user / client requirements and analyse performance during practical activities. To ensure both aspects are included a logical approach would be to write two separate evaluations each focusing on one of the required themes. Mark band 2 requires candidates to identify features of their specification that meet the user requirements and those that do not fully do so, suggesting valid improvements. When evaluating the approach to practical work at this level candidates will consider both good and not so good features of each method used for installation, configuration and testing of software, providing sensible suggestions as to how each method could be improved. For the award of marks in mark band 3 candidates need to show evidence of evaluation through the refinement of their work as it progresses. The inclusion of a draft specification with strengths and weaknesses identified along with an explanation of how it was refined to meet the users' needs more closely would provide this evidence. Evaluation of practical work could include comments on how methods were adapted during the work to solve problems which arose. Final evaluation of practical activities needs to include consideration of how a more efficient approach might be adopted for similar tasks in future.

The evaluations for task g start on page cw125 of the portfolio. The candidate has adopted a sensible approach to the work by splitting the task into two; writing an evaluation which focuses on the specification (pages cw125-131) and one which reviews the practical work (pages cw132/133). The evaluation reviewing the specification takes the client requirements from task a, and comments upon how the hardware and software specified meets each one. Good points and bad points are suggested although improvements are kept till the end of the evaluation on pages cw130/131 and are quite limited. There is some evidence of ongoing evaluation, as an annotated draft software specification is included on pages cw85/89; it would have been nice if the same had been done with the hardware specification.

The second evaluation analyses different methods used during the installation, configuration and testing of software. There are good points and bad points suggested throughout the brief report and improvements for future work are also suggested. It is implied within the evaluation that the candidate did reflect on the methods used during the practical activities and change tack when

issues arose, however this could have been more overtly presented. A missed opportunity was for the candidate to have included more reflective comments within the practical work log on pages cw67/68.

A mark just in mark band 3 can be awarded for the work presented. For higher marks more evidence of ongoing evaluation is required and more improvements to the specification in relation to the user requirements should be present.

Mark Band 3   **Mark Awarded: 6 (Max. 8)**

Total mark for portfolio: 42 (Max. 50)

G043 Assessment Evidence Grid

Unit G043: System specification and configuration

What candidates need to do:

Candidates need to produce: a specification for an ICT system to meet the needs of a given user, together with a working system on which they have installed and configured software to meet a user's needs, and recommendations for ensuring safety and security, and an explanation of the basics of software development.

Evidence needs to include:

a [AO3] a statement of the user's needs and how these might be met [**6**];

b [AO3] a specification for an ICT system [**9**];

c [AO1] evidence of software installation, configuration, testing and implementation of security procedures [**9**];

d [AO1] evidence that the software has been configured by installing toolbars and setting up macros and templates to meet a user's needs [**6**];

e [AO2] recommendations for safety and security [**8**];

f [AO2] an explanation of the basics of software development [**4**];

g [AO4] an evaluation of the specification the candidate produced and the methods used for installation, configuration and testing [**8**];

How the candidate will be assessed:

Task	Assessment Objective	Mark Band 1	Mark Band 2	Mark Band 3	Mark Awarded
a	AO3	The candidate identifies user requirements by identifying the main tasks that the user wants the system to perform, including some of the data that will be input and the type of output required; **[0 1 2]**	The candidate clearly defines the user requirements by describing specific tasks that the user wants the system to perform, including the data that will be input and the type of output required; The candidate identifies the types of software and hardware that would meet some of these needs; **[3 4]**	The candidate clearly defines the user requirements by detailing specific tasks that the user wants the system to perform, identifying all the types of data that will be input and the types of output required. The candidate identifies the types of software and hardware that would meet all of these needs. **[5 6]**	6/6
b	AO3	The candidate produces a specification for an ICT system to meet the identified user requirements, including details of hardware, operating system, applications software and configuration, with some design of toolbar layouts, menus, templates and/or macros; **[0 1 2 3]**	The candidate shows a systematic approach to clearly specifying an ICT system to meet the identified user requirements, including full details of hardware, operating system applications software and configuration, with designs for toolbar layouts, menus, templates and macros to meet user needs; **[4 5 6]**	The candidate shows a systematic approach to clearly specifying an ICT system that fully meets the defined user requirements, including full details of hardware, operating system, applications software and configuration, with detailed designs for toolbar layouts, menus, templates and macros that fully meet user needs and that would improve the efficiency and effectiveness of the user. **[7 8 9]**	8/9

Task	Assessment Objective	Mark Band 1	Mark Band 2	Mark Band 3	Mark Awarded
		Unit G043: System specification and configuration (continued)			
c	AO1	The candidate selects and installs suitable software; The candidate configures the software and operating system to meet the needs of the user; The candidate makes some attempt to implement test procedures to check each task undertaken; The candidate implements suitable security procedures; **[0 1 2 3]**	The candidate selects and installs suitable software; The candidate configures the software and operating system to meet the needs of the user, including setting ROM-BIOS parameters; The candidate clearly defines test procedures in a test plan and implements these procedures to check each task undertaken; The candidate implements suitable security procedures; **[4 5 6]**	The candidate selects and installs suitable software; The candidate configures the software and operating system to meet the needs of the user, including setting ROM-BIOS parameters and carrying out more complex configuration activities such as virus protection and scheduling tasks; The candidate clearly defines test procedures in a detailed test plan and implements these procedures to thoroughly test each task undertaken, showing how they overcame problems found as a result of testing; The candidate implements suitable security procedures. **[7 8 9]**	7/9
d	AO1	The candidate installs and tests at least **two** from: a suitable toolbar layout, menu, template or macro to meet the user requirements; **[0 1 2]**	The candidate installs and tests at least **one** of **each** of: suitable toolbar layouts, menus, templates and macros to meet the user requirements; **[3 4]**	The candidate installs and tests more than **one** of **each** of: toolbar layouts, menus, templates and macros that they have designed that provide the user with facilities to improve their efficiency. **[5 6]**	6/6
e	AO2	The candidate provides limited recommendations for safety and security, including the ergonomics of furniture and the workstation layout or consideration of management issues; the report may contain errors in spelling, punctuation and grammar; **[0 1 2 3]**	The candidate provides recommendations for safety and security that includes consideration of the ergonomics of hardware, software, furniture and the workstation layout and of management issues; the report will contain few spelling, punctuation and grammar errors; **[4 5 6]**	The candidate provides detailed recommendations for safety and security that include a full consideration of both ergonomics and management issues; the report will be consistently well structured and there will be few, if any, spelling, punctuation and grammar errors. **[7 8]**	6/8
f	AO2	The candidate outlines what is needed to develop software and at least **two** aspects that need to be considered when developing software; **[0 1]**	The candidate outlines what is needed to develop software and at least **three** aspects that need to be considered when developing software; **[2 3]**	The candidate explains what is needed to develop software and at least **three** aspects that need to be considered when developing software. **[4]**	3/4
g	AO4	The candidate comments on how well their specification meets the user's requirements and suggest improvements; The candidate comment on the effectiveness of the methods they used for installation, configuration and testing; **[0 1 2 3]**	The candidate clearly identifies good and not so good features of their specification in relation to the user's requirements, suggesting ways it could be improved; The candidate includes an analysis of their experiences while installing, configuring and testing software in order to improve their own performance; **[4 5]**	The candidate shows that they identified strengths and weaknesses in their initial specification and refined it to meet the user's requirements more closely; The candidate includes an analysis of their experiences while installing, configuring and testing software and uses this to suggest how they might approach a similar task in future. **[6 7 8]**	6/8
				Total mark awarded:	**/50**

Candidate's work

Applied GCE ICT

Unit G043
System specification and configuration

Task A

- **Wee Promote need a computer that is capable of designing and creating "high quality promotional literature".**

This means that the computer needs to be able to create professional documents for promotional purposes, such as leaflets, flyers, catalogues and brochures. This means Wee Promote needs software that enables them to create such documents, as well as having hardware capable of handling the quality of the product.
 Then they need to be printed out in colour and in high quality, but not in bulk, just for proof copies of a document. This means they need a high quality colour laser printer. They also need to be able to put these files onto optical disk or sent over the internet to the relevant people, so the company require a fast optical disk writer to complete the above task.

Input: Commands to create the literature.
Images/graphics to be used
Text via a keyboard for the text in any documents
Output: Printed literature
Email attachment/optical disk containing the file for the leaflet, in a suitable bulk printing format

User Requirements: A fast, multi-core processor that can handle the creation of high quality literature.
A good quality graphics card capable of handling high quality documents.
A large amount of RAM
Software that enables users to create professional documents, e.g. word processing software, image editing software, desktop publishing software.
Large amount of hard drive space for the saved documents
Keyboard and mouse for inputting commands, such as the layout of a document or the text in the document.
Software to convert the format of the document into something that is used by commercial printers, e.g. .PDF
Above average sized, good quality monitor
A good quality, laser coloured printer capable of printing out high quality literature.
An optical disk drive with a reasonable write rate, supporting dual layer DVD for very large files that need to be burnt.
An operating system
An internet service provider so can use email.

- **Wee Promote need a computer that is capable of designing and creating "promotional websites"**

This means that the computer needs to be able to create professional looking websites, but not host them, just the actual content of the website. The hosting would be done by a third party. This means the person must be able to instruct the computer software in a variety of different fields, such as the layout of the images and the text in order to create a website. Then the company need to send the website file to the host via an email.

     Input: Basic layout for a website
      W   ebsite content
    Relevant   images/graphics
       Text for the website entered via a keyboard.
     Output: Website in HTML form, ready for upload

User Requirements: Average amount of RAM that can handle the creation of websites
               An average processor that can handle website creation
  Good   quality graphics card.
               Internet access to send files to website host.
               Software that enables users to create websites, web authority software, image editing software, and FTP software.
               Keyboard and mouse for inputting commands, such as a website layout and the text for the website.
               Above average sized, good quality monitor.
               An operating system
               An Internet service provider

- **Wee Promote need a computer that is capable of designing and creating "interactive multimedia products and presentations"**

This means that the computer needs to have some form of presentation software, and other software that can design and create various multimedia products, be it video, audio or presentations. This means that the computer must be able to create video and audio presentations using a variety of inputs, such as raw video, but also basic images, which can be combined with audio to create an interactive multimedia product. Multimedia products include video presentations as well as slideshows and presentations, so Wee Promote would need a computer that is capable of creating these.

     Input: Instructions to create videos, and adding effects.
  Raw   video
  Interactive   medium
       Content for the video/presentation
     Output: Finished product on optical disk (CD)

User Requirements: Large amount of RAM to handle smooth video and editing
               Fast, multi-core processor capable of handling the stresses of video editing.

High quality graphics card capable of handling high quality video.
High quality sound card capable of handling high quality audio.
Large amount of hard drive space to save the interactive media.
Video creating and editing software

Multim edia production and authoring software

Above average sized, good quality monitor
Keyboard and mouse for inputting commands, such as drag-and-drop of audio and video files.
Optical disk drive (DVD) with a reasonable write rate to burn the interactive multimedia onto disk
Good quality speakers.
Operating System

- **Wee Promote need a computer capable of burning off data CD/DVD's.**

This means that the computer needs to have an optical drive capable of burning off CD's and DVD's, and possibly (though not necessary) Blu-Ray Disk (BD). The optical disk drive should have a fast write rate to provide a fast burning rate, with a could buffer rate so that the data can be prepared before the burning at a fast rate so that the burning process is made quicker. Wee Promote will burn various types of data onto disk, such as audio and video, but also general data to be given to companies transferred via optical disk.

Input: Data in the correct format ready to be burned onto optical disk

Instructions to burn data

Output: Optical disk with the burnt data.

User Requirements: Large amount of RAM to support smooth burning
Fast, multi-core processor capable of handling the demands of burning data.
Good quality optical disk burner (Dual layer CD/DVD drive) with a fast write rate,
Burning software capable of burning audio, video, and non-media data.
Keyboard and mouse for inputting commands, such as locating the data to be burnt.
An operating system
A good quality, above average sized monitor
A large hard disk drive

- **Wee Promote need a computer capable of creating audio visual products.**

This means the computer needs some form of audio editing and video editing software, and capable of producing high quality video and audio. Wee Promote create promotional video and audio for company's, so they must be able to create video and audio products

from scratch using raw video and audio. However, they also create audio and video to promote their own services, so maybe have a video template or even watermarks to add onto the video for the company logo.

Input: Instructions to create audio/videos, and adding effects.
Raw   audio
Raw   video
Output: Finished product containing audio and video
Finished product in appropriate format.

User Requirements: Large amount of RAM to handle video/audio creating
Fast, multi-core processor capable of smoothly handling video and audio creating.
High quality sound and graphics card to handle high quality video/audio.
Video and audio editing software
Above average sized, good quality monitor
An operating system
Keyboard and mouse for inputting commands, such as the text or dragging and dropping audio/video
A large hard disk drive

- **Wee Promote need a computer with a printer capable of printing off "high quality, colour printed paper literature", however not in bulk.**

This means that the computer needs to be able to print off high quality, coloured paper literature, though speed and amount can be sacrificed for quality in this case, as Wee Promote don't print off bulk, but just proof copies and master copies. The printer must be able to print out high quality documents, and from a number of different formats, including basic Office-type software to PDF's. The printer must be able to be configured easy for Wee Promote and be able to print in both colour and black and white, and possible duplex and even fold the paper for various documents.

Input: File converted but into a printable format.
Comm   and to print
Printing   page size
Output: Printed file

User Requirements: Average amount of RAM that can handle basic but high quality printing
Large   hard drive to save high quality literature
Average   speed processor.
High   quality graphics card to show the high quality documents
High   quality, colour laser printer with an average speed of printing.
Software   that converts files into a portable, printable format.
A good quality, above average sized monitor

Keyboard and mouse for inputting commands, such as the command to print

An   operating system

- **Wee Promote need a computer that can output documents in an electronic portable format.**

This means that the computer must be able to convert files from various types, such as a Word or Text document, into a format that portable devices and printers can recognise, such as PDF. The computer must be able to create documents, and then use a converter to convert it into a portable format. Wee Promote need documents to be in portable format as some business and industrial printers will only print in certain formats, so therefore as part of Wee Promotes service, they should be able to convert the format to one the printing company they use will be able to use to print from.

Input: File in original format

Instructions   on the conversion process

Location for the outputted file to be put

Output: File in converted format

User Requirements: Average amount of RAM that can handle the conversion process

Slow,   basic processor as conversion doesn't take a lot of power

Average hard drive to save the files in original and converted formats.

Software that allows the conversion of basic documents into portable versions

A good quality, above average sized monitor

Keyboard and mouse for inputting commands, such as commanding the document to be converted and the location it should be put

An   operating system

- **Wee Promote need a computer that can connect to the internet.**

This means that the computer must be able to perform tasks via the internet. This includes things like email, so Wee Promote can keep in touch with staff and potential clients. They also use internet for uploading promotional websites to the third party company who host it. Video conferences also use internet, but also the internet is needed to send the electronic documents in a portable format to the printers, which are third party too. They also need the internet for setting up the website and to sent the website document to the web host.

Input: An internet connection via a relevant cable into relevant port.

Intern   et address

Output: Access to the internet

User Requirements: Decent amount of RAM for internet access

Decent amount of hard drive space for temporary files
Average speed processor capable of handling internet access and email clients
Good quality network cable
An internet service provider
An internet browser and email client
An operating system that supports the chosen internet browser and TCPIP Layers.
A good quality, above average sized monitor
Keyboard and mouse for inputting commands, such as text for the web address and for clicking on links.

- **Wee Promote need a computer that is capable of supporting and translating multiple languages (English, French, Spanish).**

This means that the computer must be able to translate English into French or Spanish, and vice-versa. The staff understands each of the languages, however gets stuck on some translations, so a direct translation underneath the French (in English) is not necessary, but may be useful if needed. A translation package can be installed, but also online translation services may be useful, so internet access may be needed also.

Input: Text in original language
Context it is meant in (some languages have different words for the same word, depending on the context it is meant in)
Output: Text converted into chosen language.

User Requirements: Small amount of RAM, as language translation doesn't require much RAM
Small amount of hard drive space
Average processor speed as language translation requires little power
Language   translation software
An   internet service provider (for online language translation)
An operating system that supports multiple languages
A word processing software that supports multiple languages
Keyboard and mouse for inputting commands, such as what language to be translated to and what text needs translating
An   average monitor

- **Wee Promote need a computer that has a large storage capacity.**

This means that the computer needs a large hard disk drive, or multiple hard disk drives, to cope with the demand. Professional, high quality images, video and audio take up a lot of space, so a large hard disk drive is required to cope with the sizes of the files. A large

hard drive means that data can be kept in its highest quality form. A large external hard drive is also needed for creating back ups.

Input: Raw media files to be stored (e.g. sound, graphics, and video).
Output: Media stored onto the drive
Information on status of HDD (e.g. how much is space is used, how much free)

User Requirements:	Fast, multi-core processor capable of handling a large hard drive and fast access to it

Large hard disk drive
Large amount of RAM.
Keyboard and mouse for inputting commands
An average monitor
An operating system

- **Wee Promote need a computer that can handle client administration and searching for client records.**

This means that the computer needs some form of database software that can keep a record of the clients, but also so Wee Promote can organise the clients by a range of different criteria. Other administration software may be required, as tables can be created in word processing documents, so it is not just database software required. A search tool is needed for quick access to files.

Input: Client information
Text via a keyboard
Search criteria
Output: Reports and documents that contain client information (phone numbers and address)

User Requirements:	Average speed processor that can handle basic client administration
Medium sized hard disk drive to store multiple client data

Average amount of RAM
Office software that includes database software and word processing
Headsets for voice recognition
An operating system
Keyboard and mouse for inputting commands, such as entering the clients details.
A decent sized monitor.

- **Wee Promote need a computer that is capable of video conference functions.**

This means that the computer needs internet access so video conference's can take place, but also there needs to be some form of web camera, so the video conference is actually a "video" conference. Video conferences are integral to any modern business that uses ICT,

as it allows for people to communicate and hold important meetings without having to travel across the globe. The initial investment may be expensive, but the long term financial benefits are more than enough to encourage Wee Promote to use video conferencing.

Input: Contacts details
Video via camera
Audio   via microphone
Output: Data sent to recipient via the internet
Video received from recipient via the internet

User Requirements: Large amount of RAM to handle online video conferencing
Fast, multi-core processor capable of handling online video conferencing.
Webcam capable of handling video rather than still images
Microphone (if not built in on webcam)
Decent quality video card
Decent quality sound card
A fast internet connection capable of handling video conferencing with minimal lag.
Video conferencing software that can support both one-on-one video calls and group conferencing.
A large sized, good quality monitor
Headsets for individual users if a large group are communicating through the video conferencing.
An operating system that supports video conferencing
Keyboard and mouse for inputting commands, such as controlling volume.
Speakers for the output audio
An internet service provider

- **Wee Promote need a computer that has a strong security set up.**

This comes in two different forms. The first is for the internet, where the system needs password setup so that unauthorised personnel cannot access private files. The second is for the files themselves. There should be a security setup, such as passwords, so that any files don't accidently get deleted. Security is paramount to any business, especially ones that use ICT as computers are quite open to attack, therefore internet security is required (to prevent hacking) and so are passwords (to prevent unauthorised access and accidental deletion of files).

Input: User names and passwords
Instructions   to backup documents
Instructions   to update security software
Output: Confirmation of correct logon
Confirmation of backup complete
Confir   mation of update

User Requirements: A system security software that include: Anti-phishing software, firewall and viruses

An operating system capable of supporting multiple users and different levels of access.

Backup   software

Keyboard and mouse for inputting commands, such as the user name and passwords.

An   average monitor.

The practical activity I done meant I had to configure a computer and install programs relevant to Wee Promote.
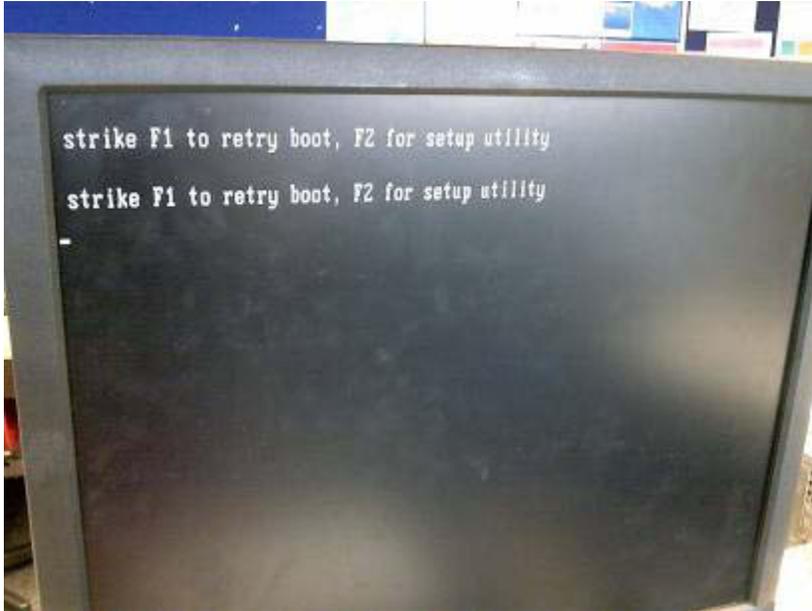
The computer did not have any OS installed, therefore I had to go into the Setup Utility.
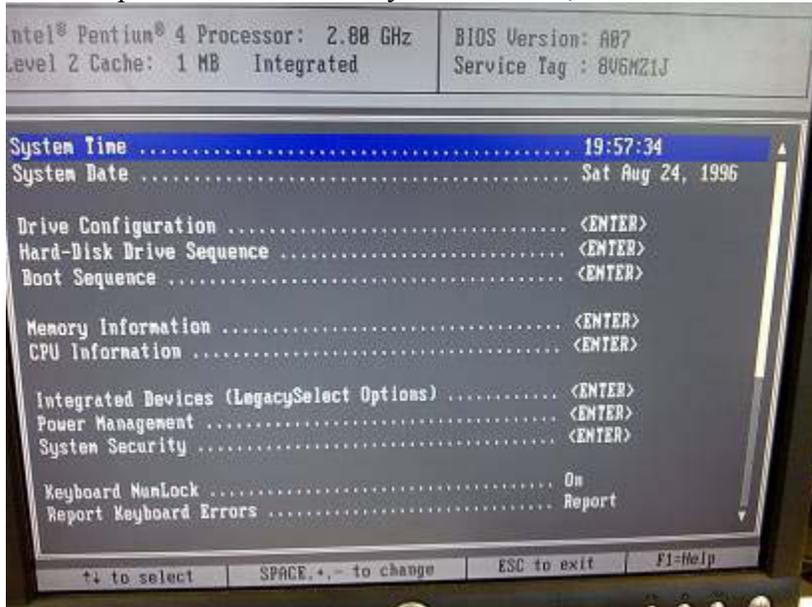
At the start of the activity, the computer did not have any OS installed, or even recognise that a hard disk drive and CD-Rom drive were installed. I had to go into the RAM BIOS settings, and edit multiple things, including the date and time.

The HDD and CD-Rom drive were not recognised.
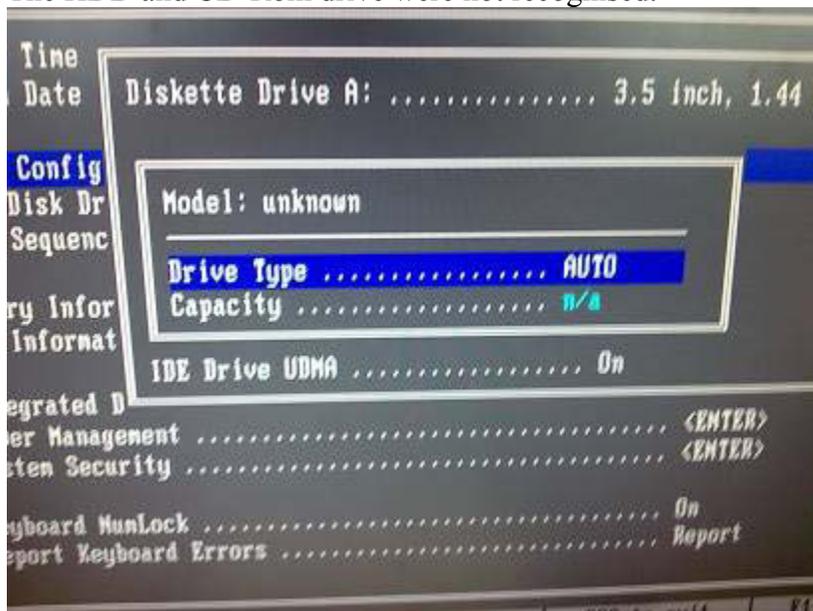
I set each drive type to "AUTO" so that the machine would automatically recognise a drive installed.
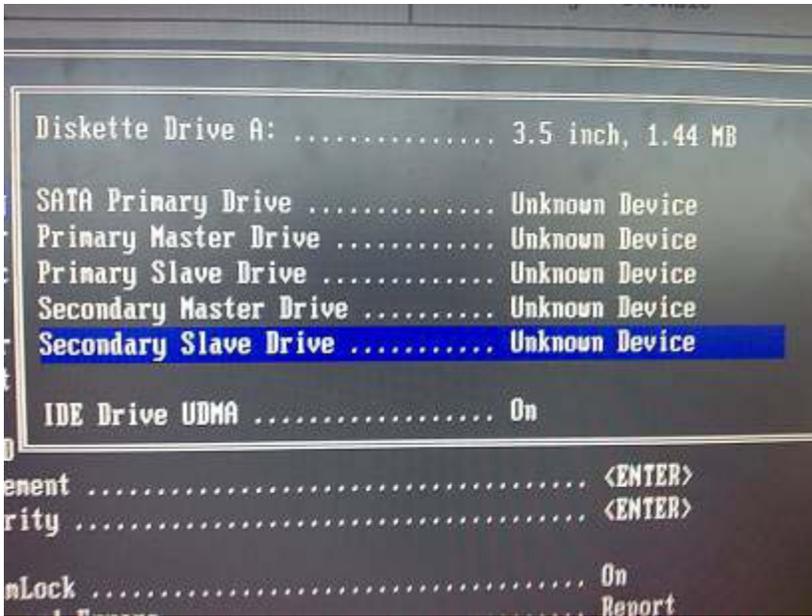
Once I set each drive to "AUTO", they appeared as "Unknown Device", as the machine had to be reset for the changes to take effect.
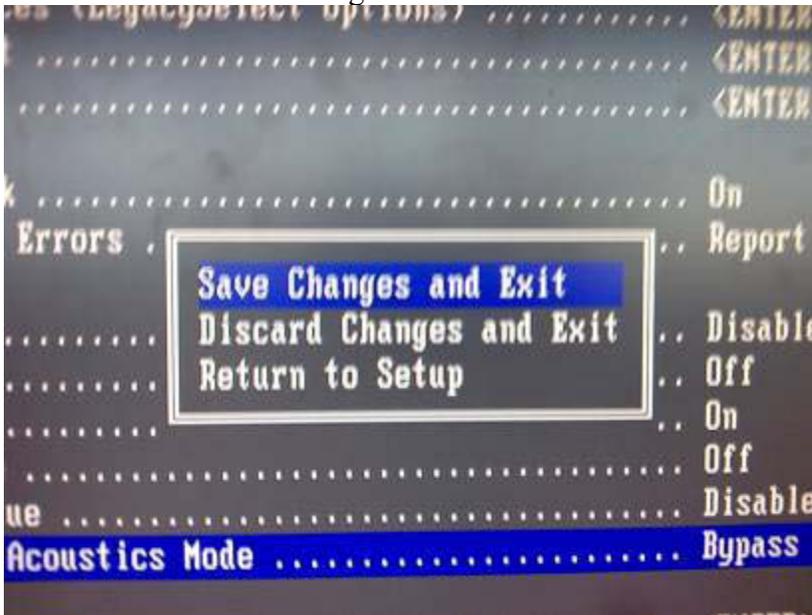
I saved the changes and restarted the machine.

The HDD and CD-Rom Drive were both found. No other devices were connected, so there allocated slots appear as unknown.
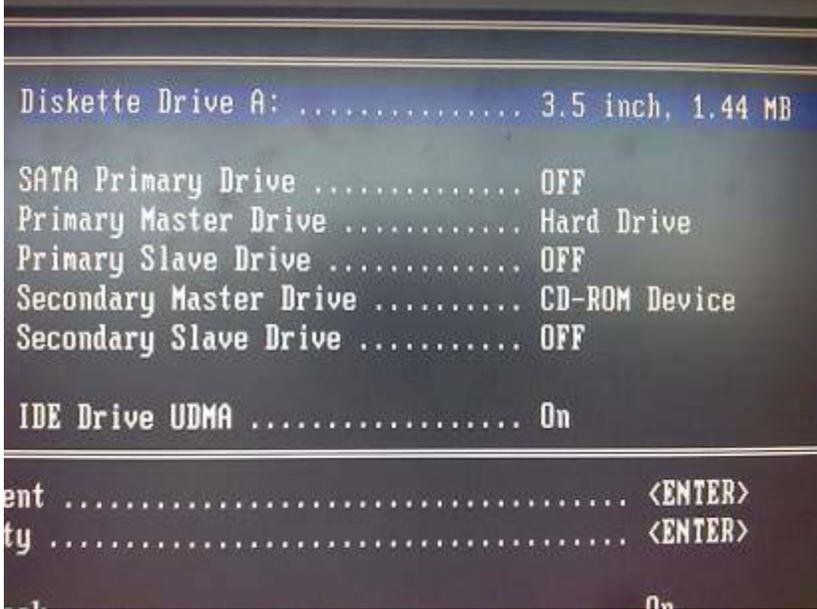
As no drive was connected to these slots, I switched off these drives.

This was the original boot sequence of the computer.

I set the boot sequence up this way, so that the OS disk would boot up first.
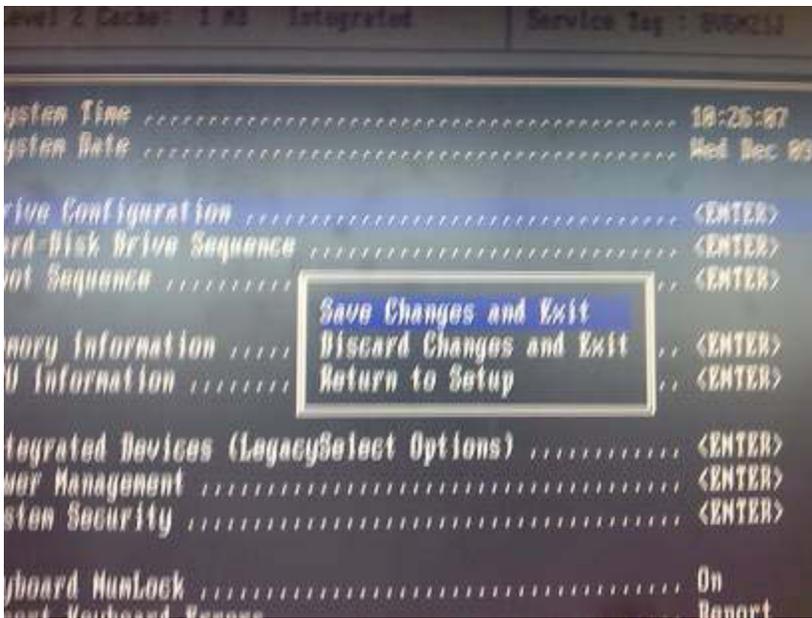
I saved the changes and shut down the machine.
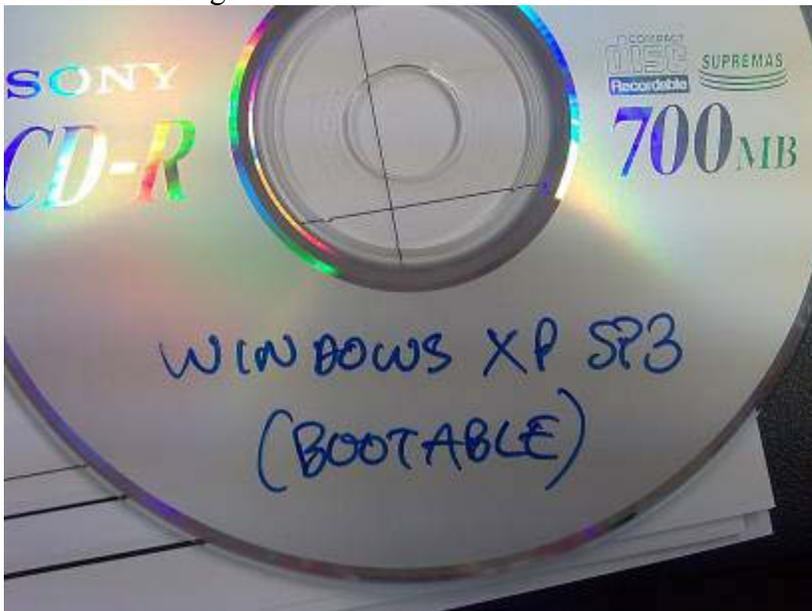
This is the Operating System I chose to use: Windows XP. This is because it is the most up to date OS, and it is one I am comfortable with using.
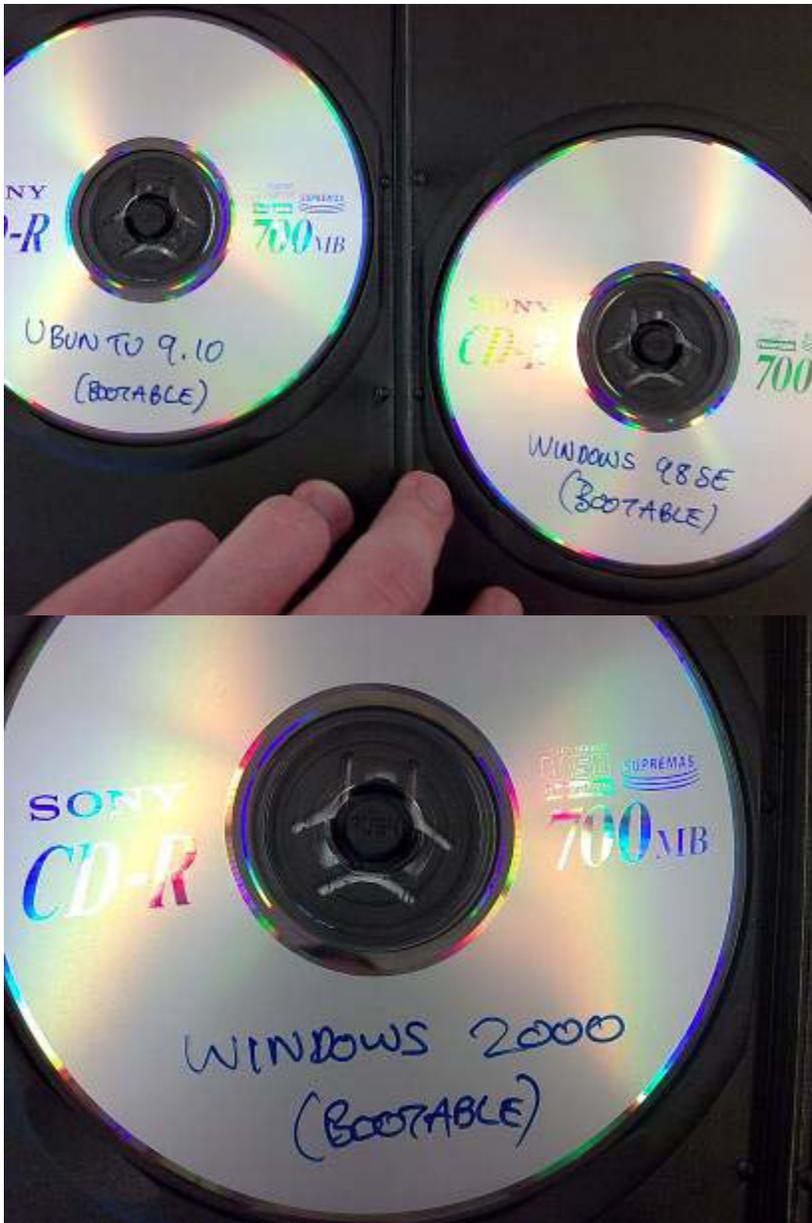
These were some of the other Operating Systems I could use. However, these are not as up to date or user friendly as Windows XP, so I discarded the idea of using these straight away.
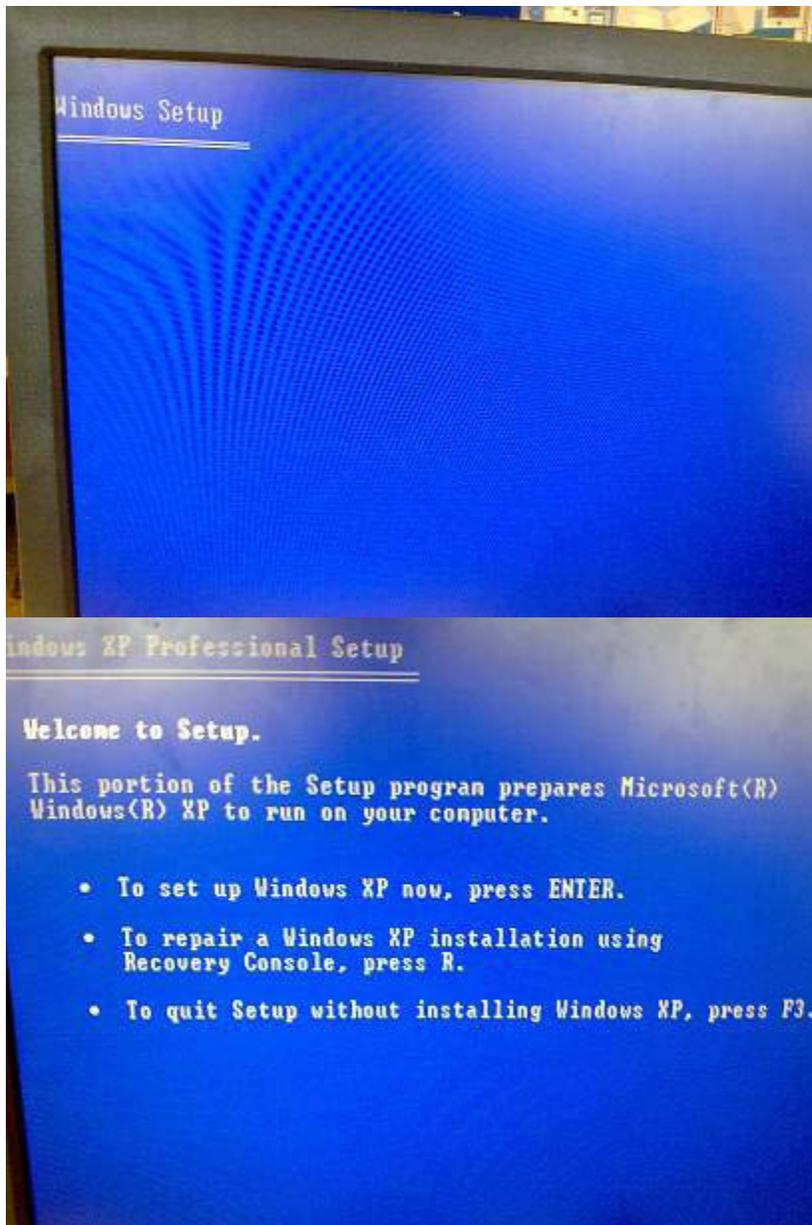
This is the initial Windows XP set up screen. I pressed "Enter" on the above screen to continue the installation process.

I agreed to the Licensing Agreement.

I chose to use the partition with 38146 MB as Windows XP uses over 1 GB of space.
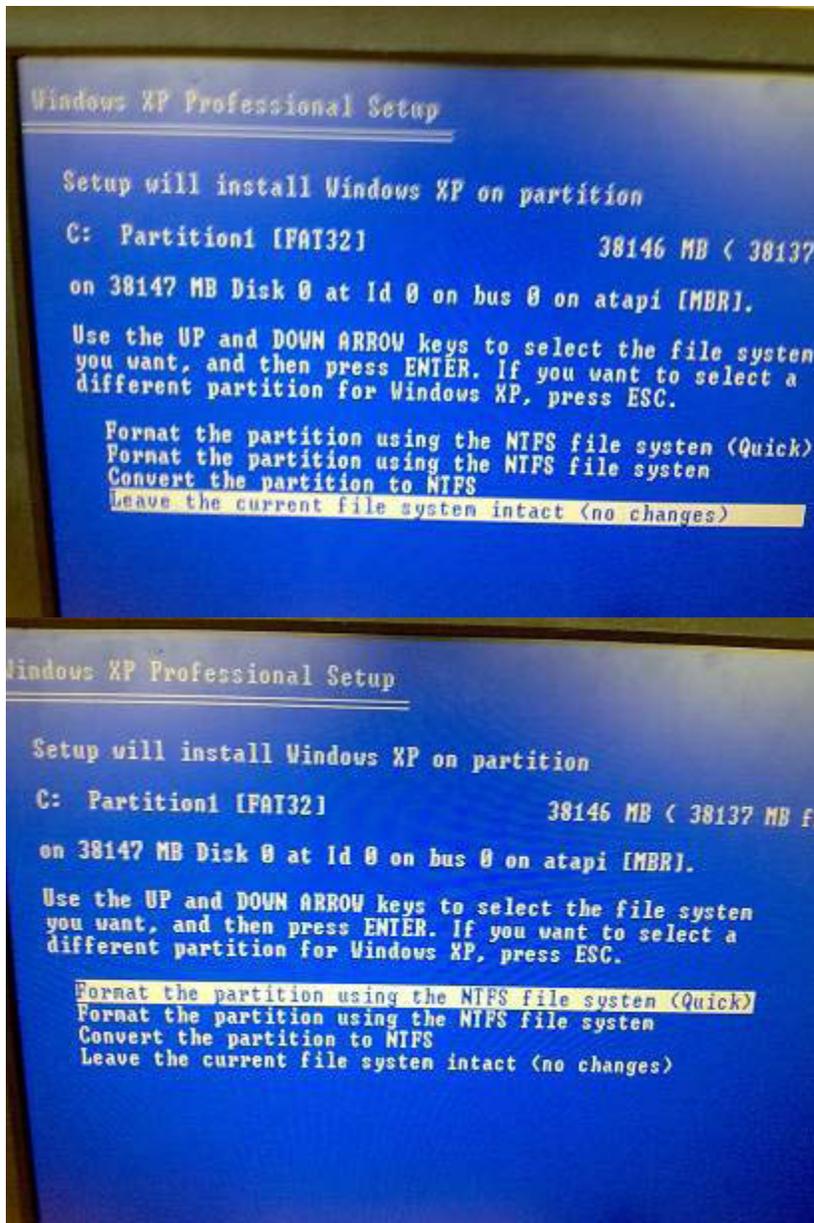
I chose to do a Quick Format, as the drives were empty to start off with, and it would save time meaning I could get straight into
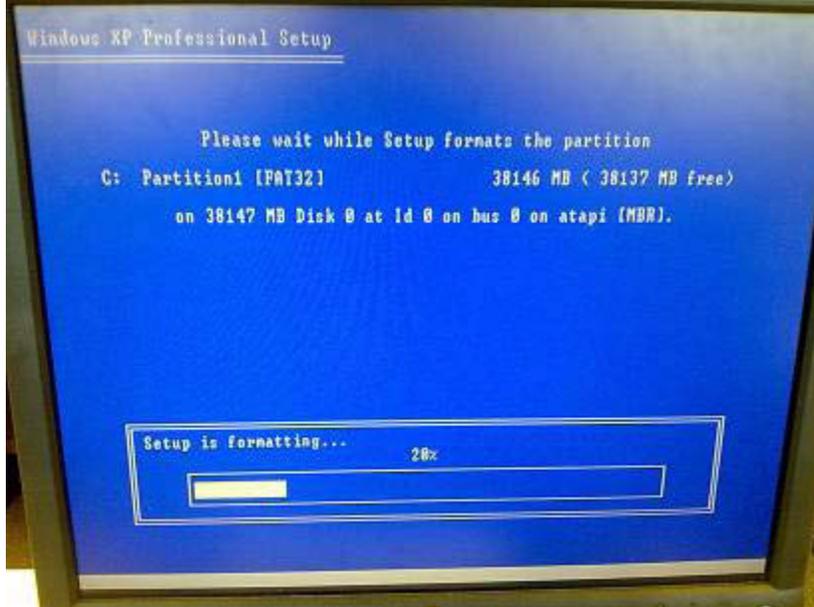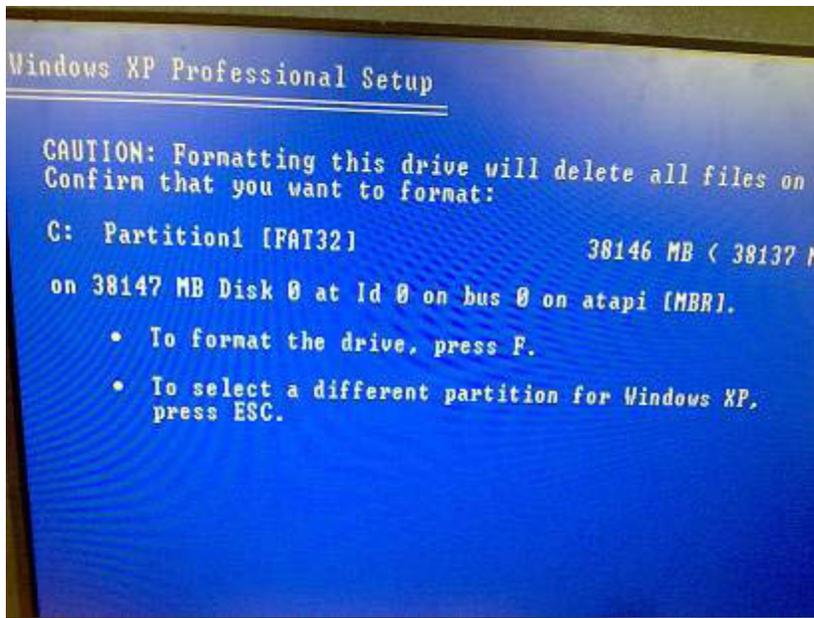
These two photos show me choosing to format the drive, and the formatting process taking place.
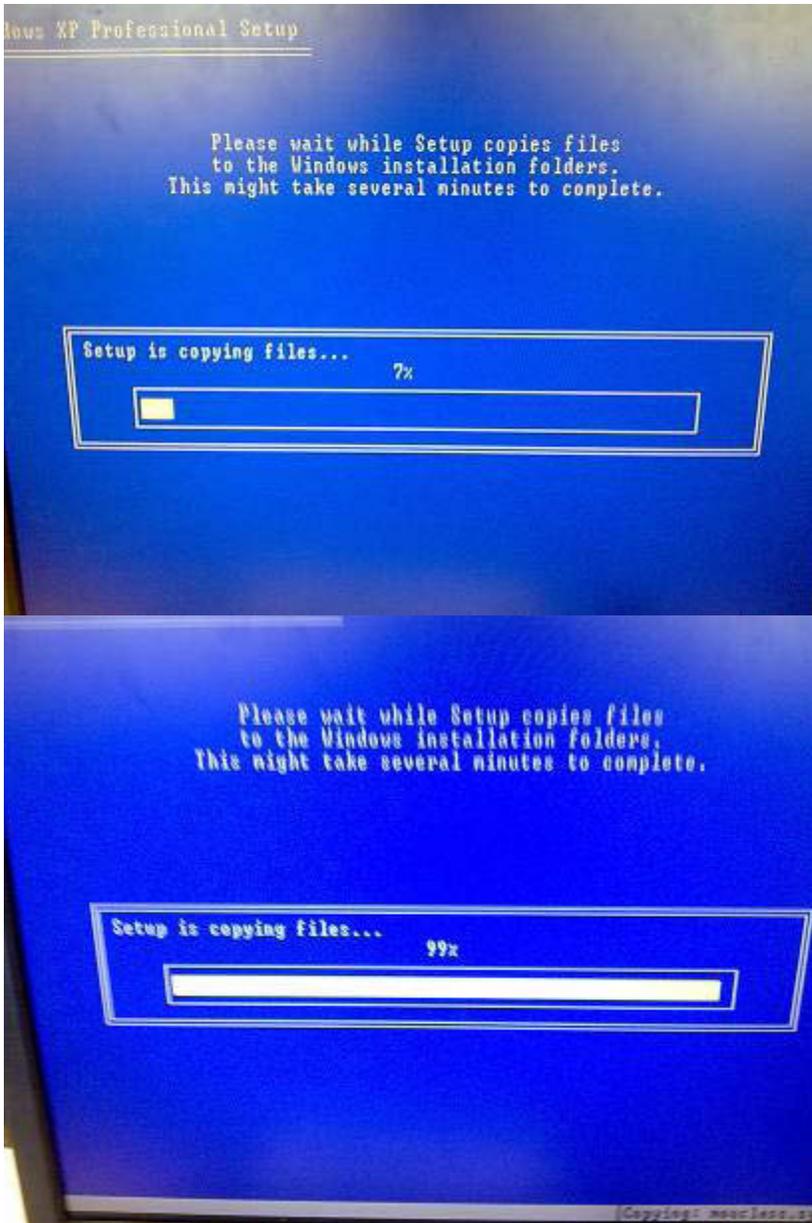
These two photos show the Setup copying files to the Windows Installation folders.
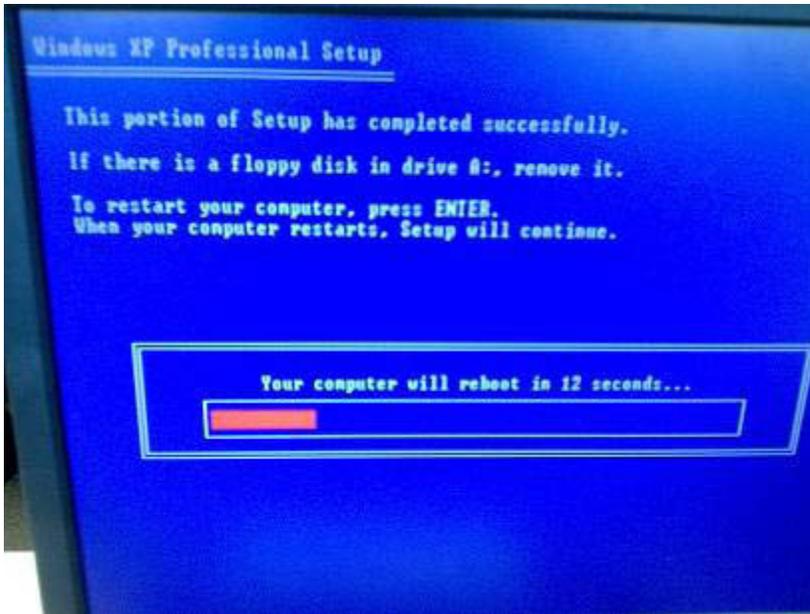
The computer rebooted itself once the Setup completed, however the computer would not boot from the HDD. I removed the Installation CD, as I chose to boot from CD-Rom Drive as the initial boot up. However, this didn't work.

I chose to go back into the RAM BIOS, and turned off booting from the CD-Rom Drive and Diskette Drive. This solved the problem, and I was able to proceed.
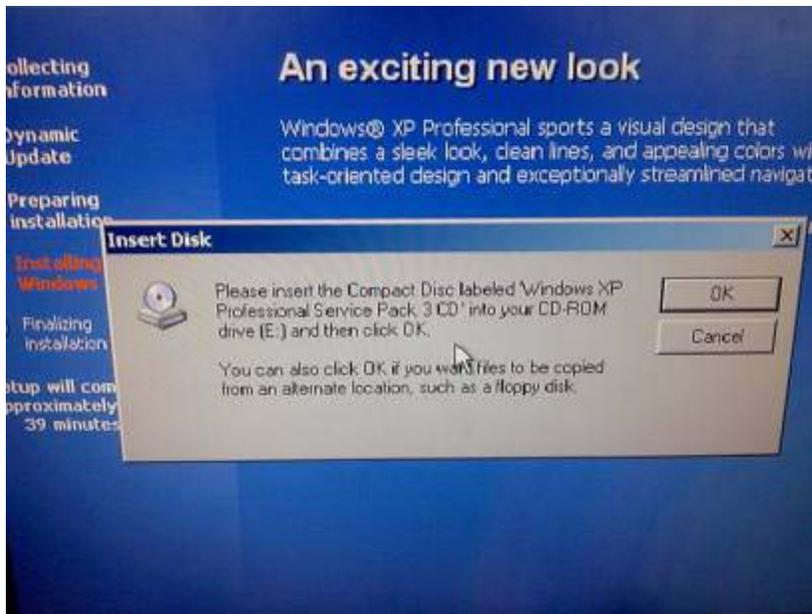
As I took out the Windows XP Installation disk in the previous steps, I had to re-insert it back into the computer to continue the installation process.
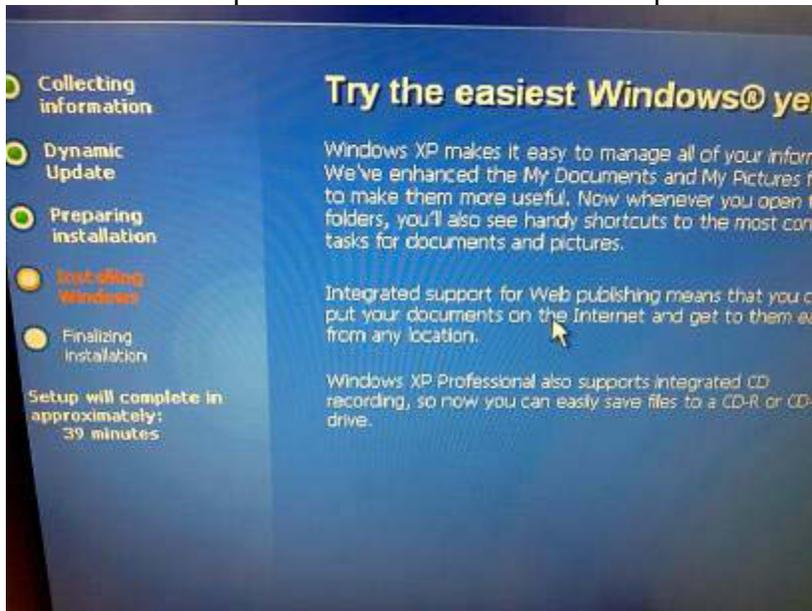

This shows the setup installing windows. This point did not require any user input to continue the process.
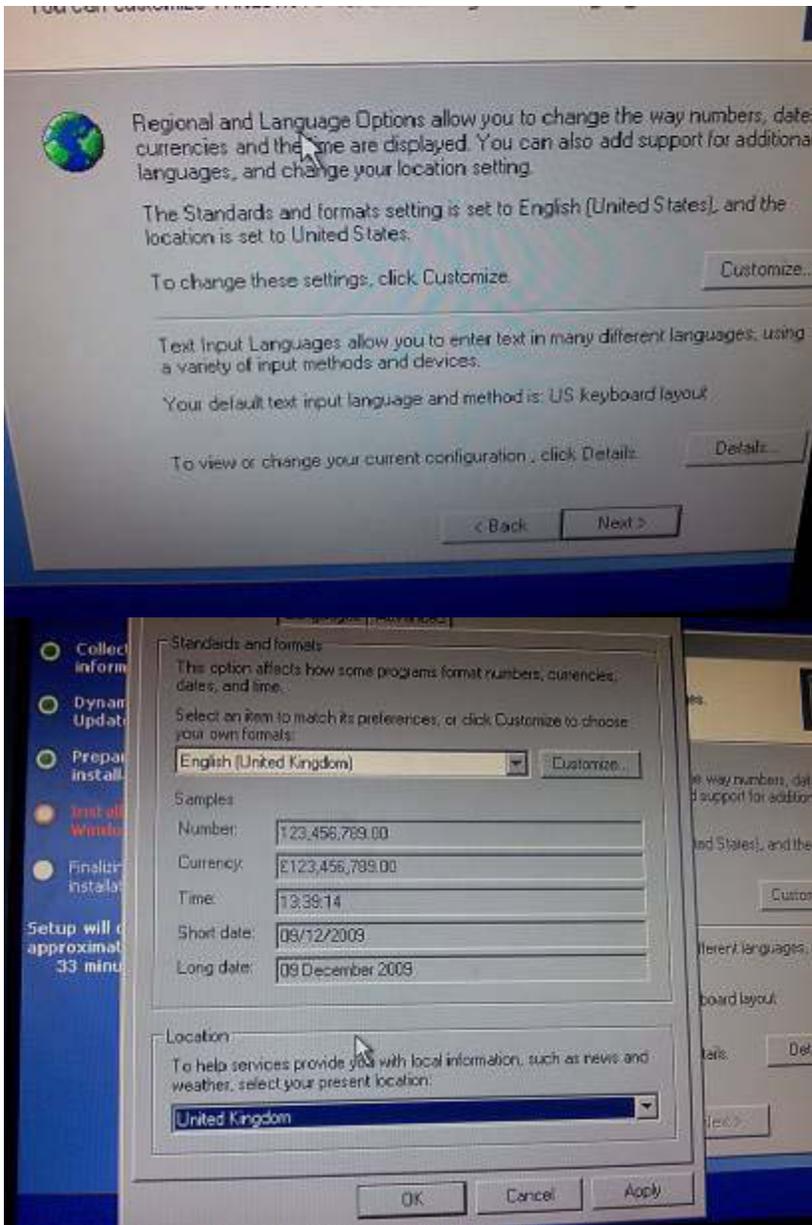
The top photo shows that the default localisation settings are set to United States. The bottom photo shows me changing these to United Kingdom.
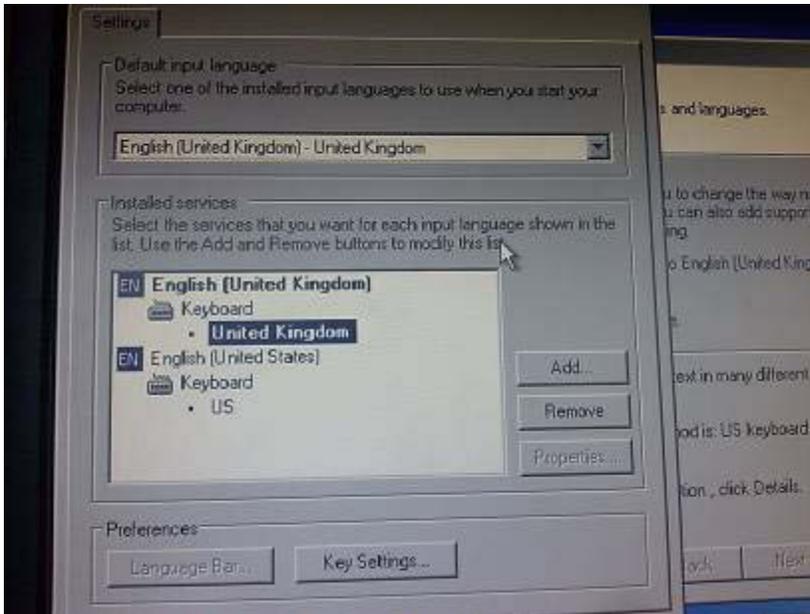
This shows me changing the Keyboard localisation to United Kingdom as default, rather than a US keyboard. This only equates to minor changes (speech marks being switched with the AT @ key), but as Wee Promote are an English, UK based company it is necessary to have the localisation all with UK.
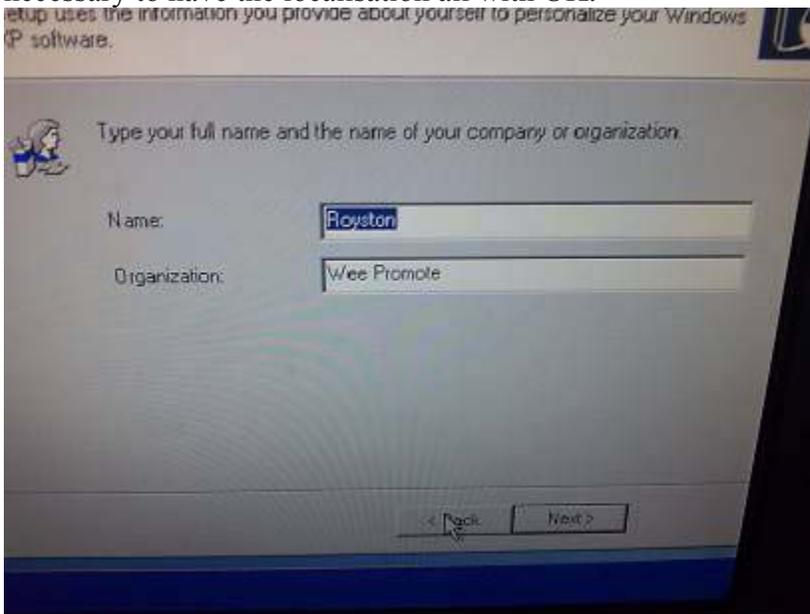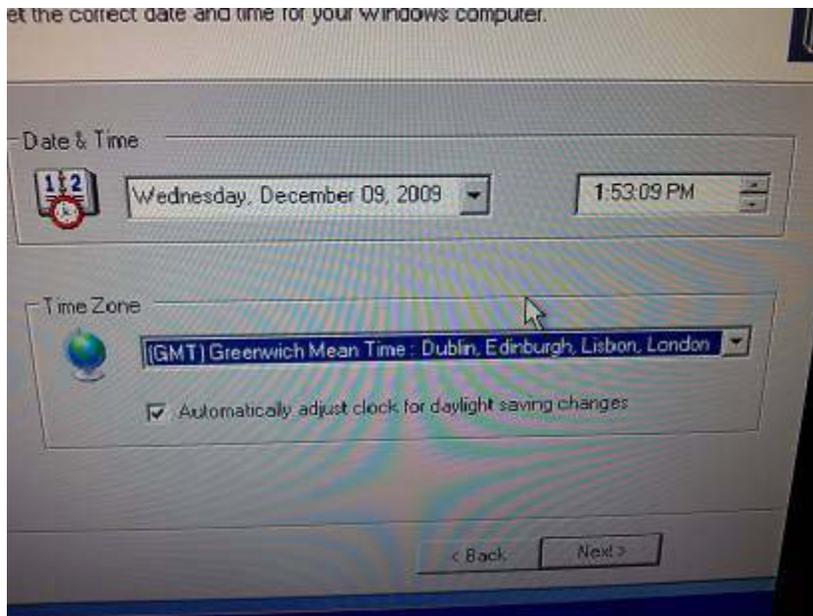

This shows me creating a mini profile for Windows XP, entering my name and company.
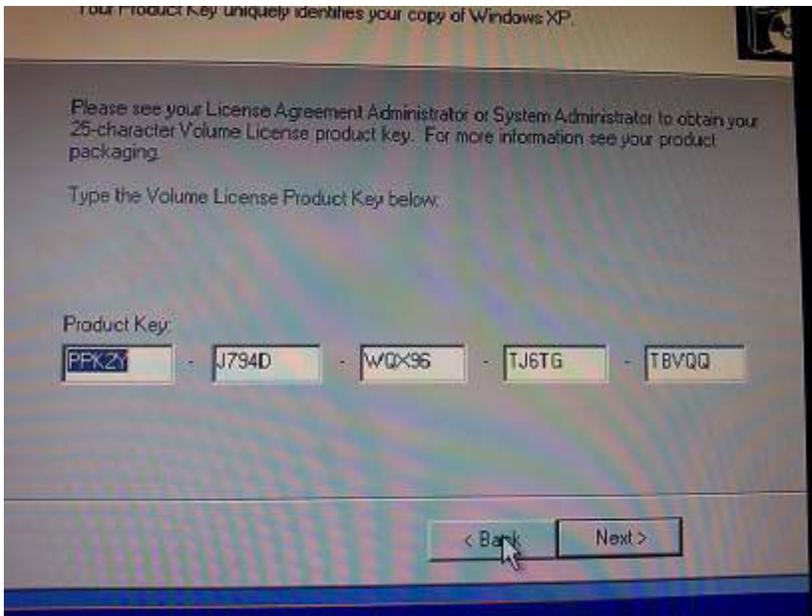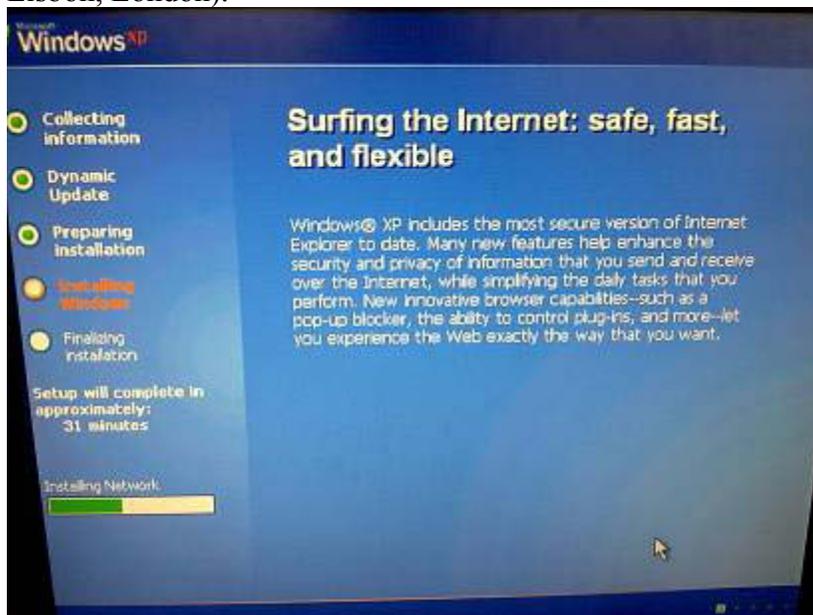
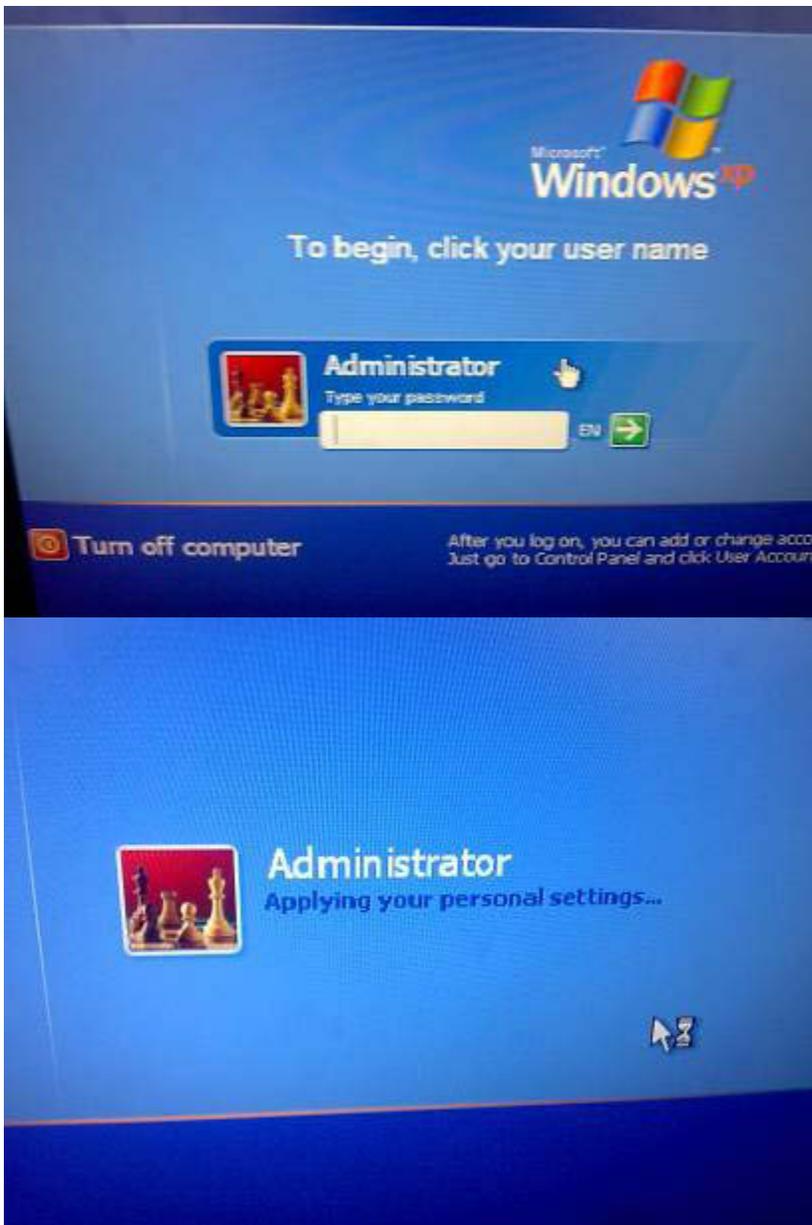This shows me entering the product key for Windows XP.
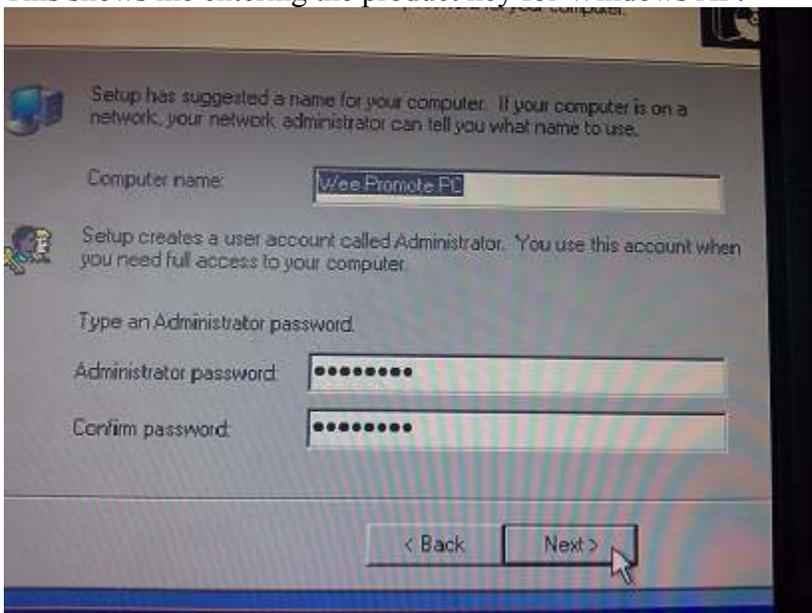
This photo shows me setting up an administrator account and changing the computer name.

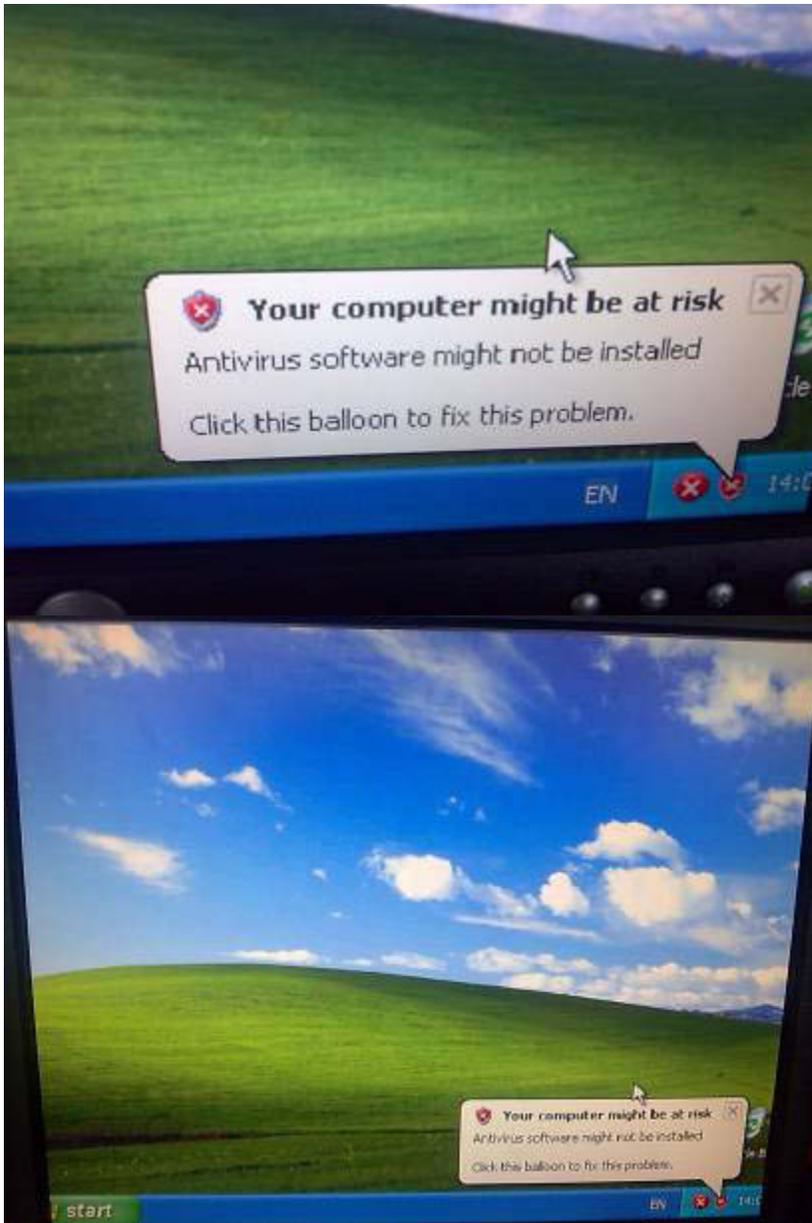This photo shows me changing the Time Zone to GMT 00:00 (Dublin, Edinburgh, Lisbon, London).

This photo shows the installation process continuing after I had changed the necessary settings.

The above photos show that I am signing into the created Administrator account.

These photos are of the initial screen once the administrator count was signed in. No antivirus software had been installed or configured at this point.
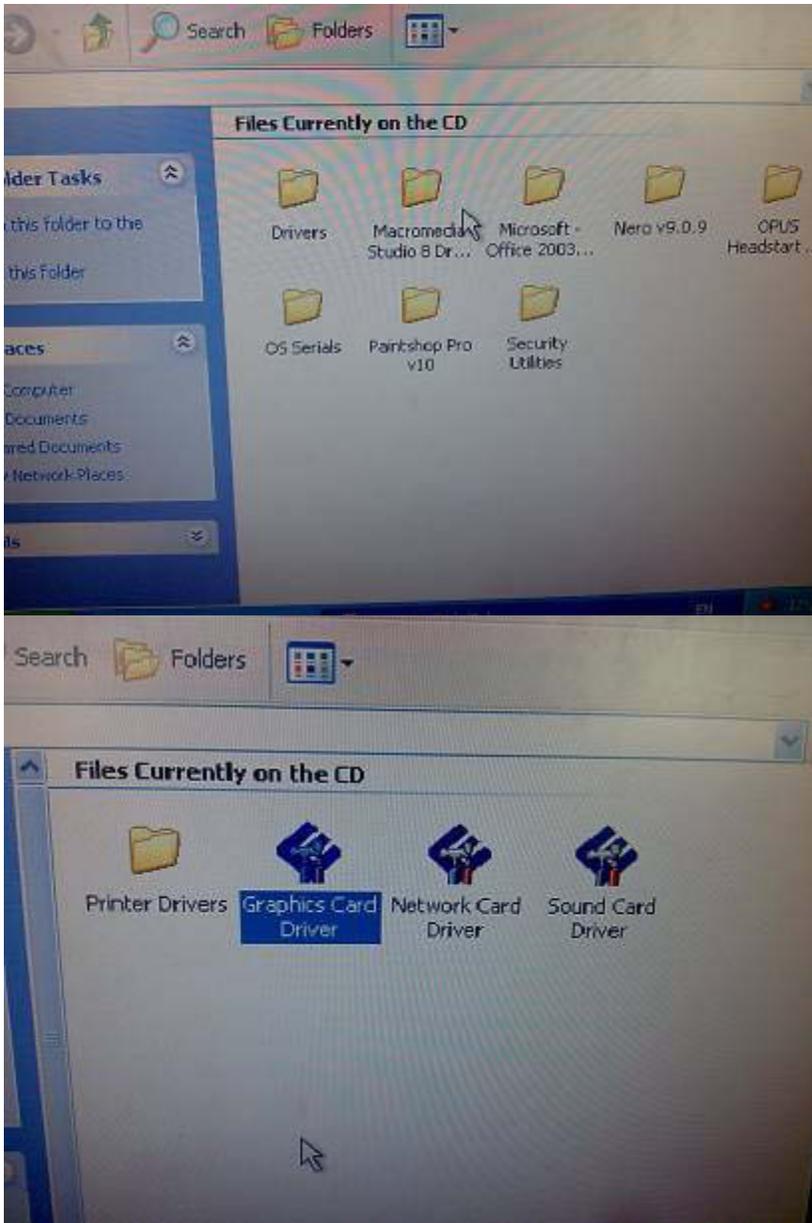
I decided to install the graphics card drivers, as the monitors resolution was too far out, and I could not change the resolution without the graphics card driver installed.

These photos show the installation of the graphics card driver and the license agreement.

The graphics card driver installed fine, and I restarted the computer so that the changes could take place.

The graphics card driver had installed fine, but the resolution chosen as default meant the icons were far too small, so I had to change it.
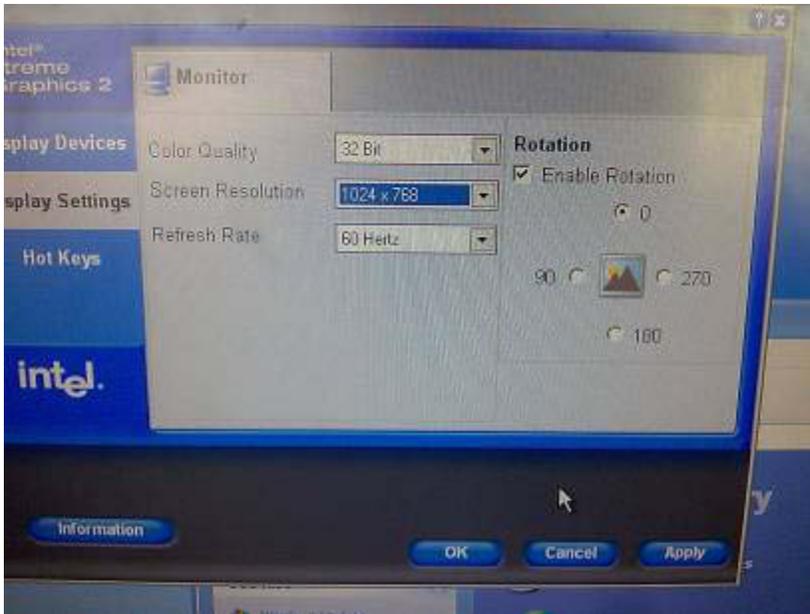
I changed the resolution to 1024x768, as this is the resolution of the monitor.

As I was setting up the Antivirus software, I had to connect to the internet. As no internet connection had been set, I had to create one.
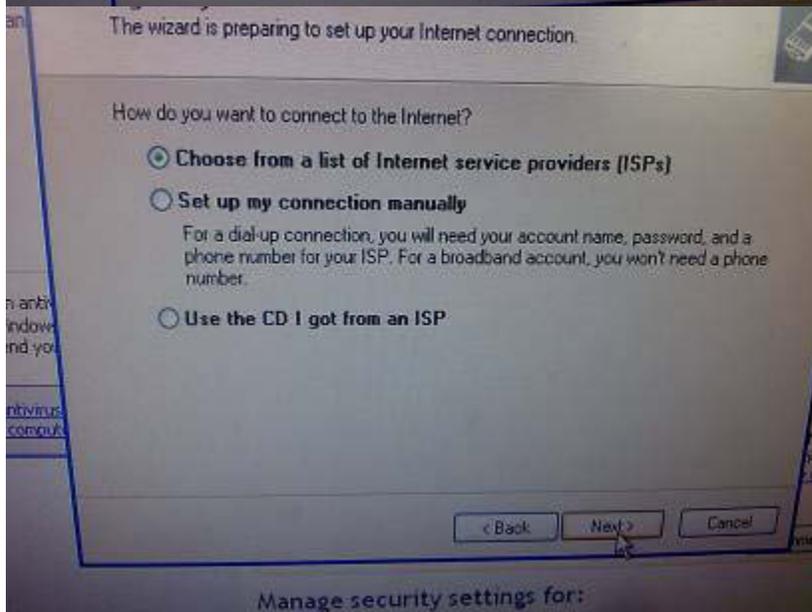
I chose these settings, as these were the default settings. I was not too sure about which settings to use, so I thought if it went wrong I could redo it.

Luckily, the chosen settings worked fine, so I didn't have to make any changes. However, for the internet to work I had to install the network driver.
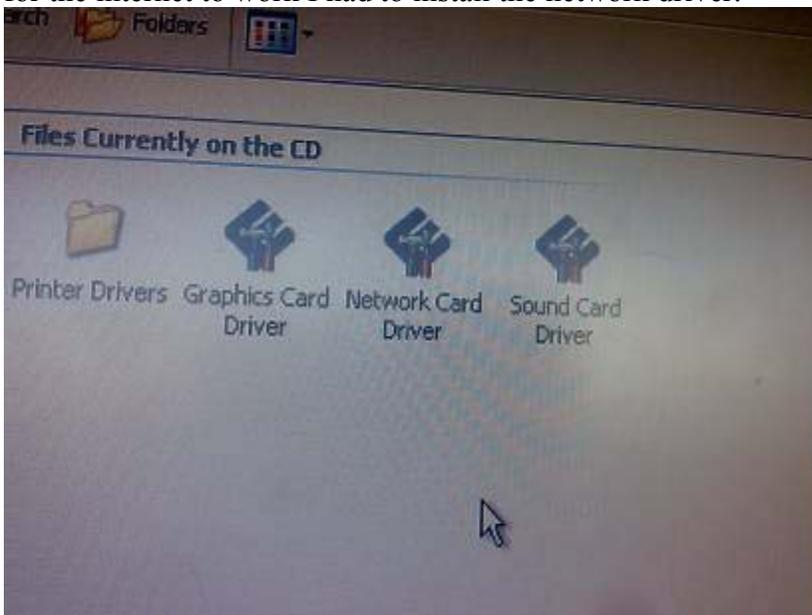
This photo shows the Network Card Driver, which I installed.
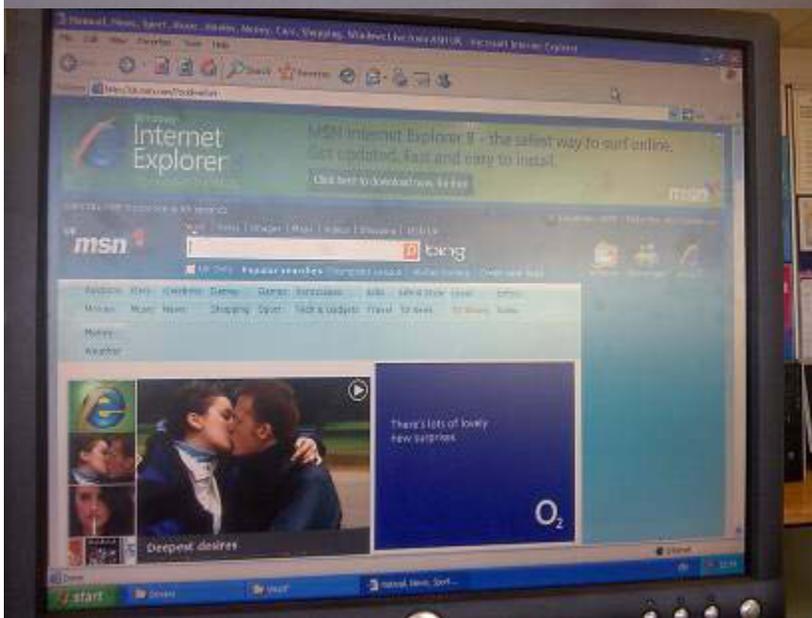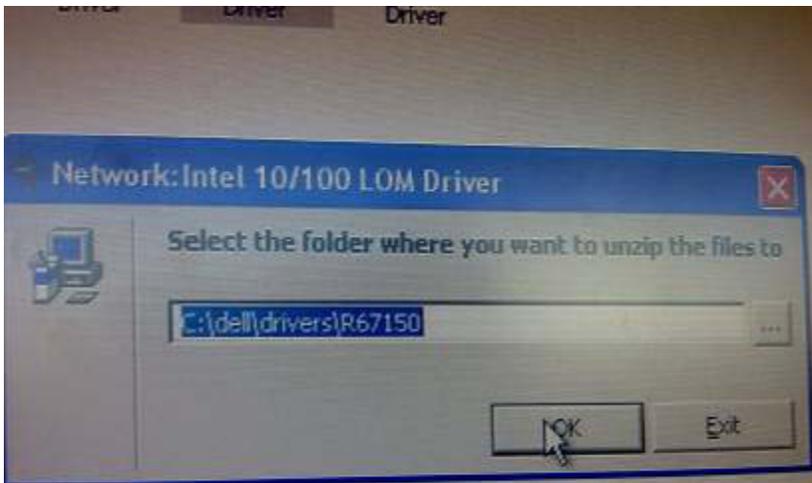
These two photos show where I chose to install the driver, and then I checked to see if the internet connection had worked by opening internet explorer.

README.HTM

Analog Devices 198x Integrated Audio Driver

:lick on the "Install Now" button below.

OTE:(**Win XP users**) When you select 'Install Now', you may be given the following
re info. You *MUST* select 'Open' for the installation to work.

OTE:(**Other OSes**) When you select 'Install Now', you may be given the choice of runn
on, or saving this program to disk. You *MUST* select 'run this program from its current
ork.

Install Now

dMAX Install

InstallShield Wizard Complete

The InstallShield Wizard has successfully installed SoundMAX.
Before you can use the program, you must restart your
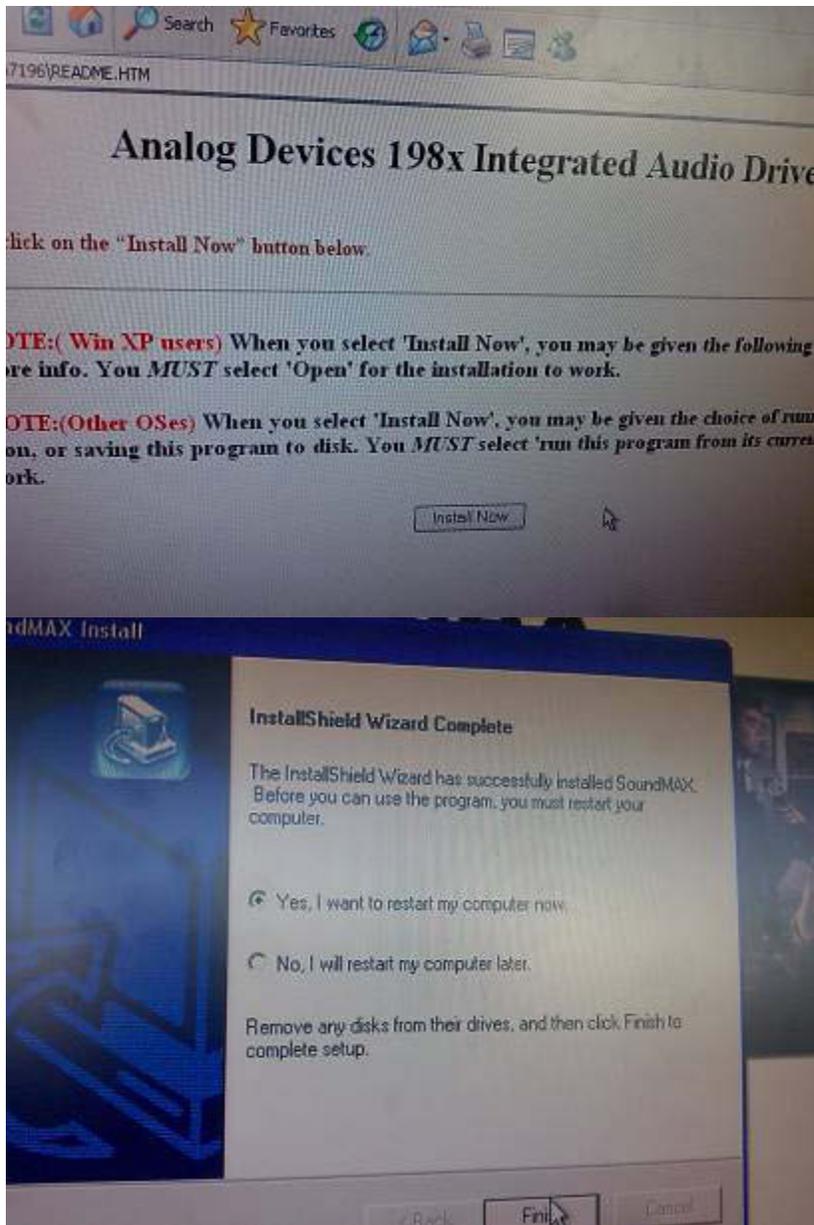computer.

○ Yes, I want to restart my computer now.

○ No, I will restart my computer later.

Remove any disks from their drives, and then click Finish to
complete setup.

Back   Finish   Cancel

As Wee Promote use audio in quite a lot of their work, I decided to install the audio drivers for the computer. These screenshots show the initial installation and the installation complete screen.
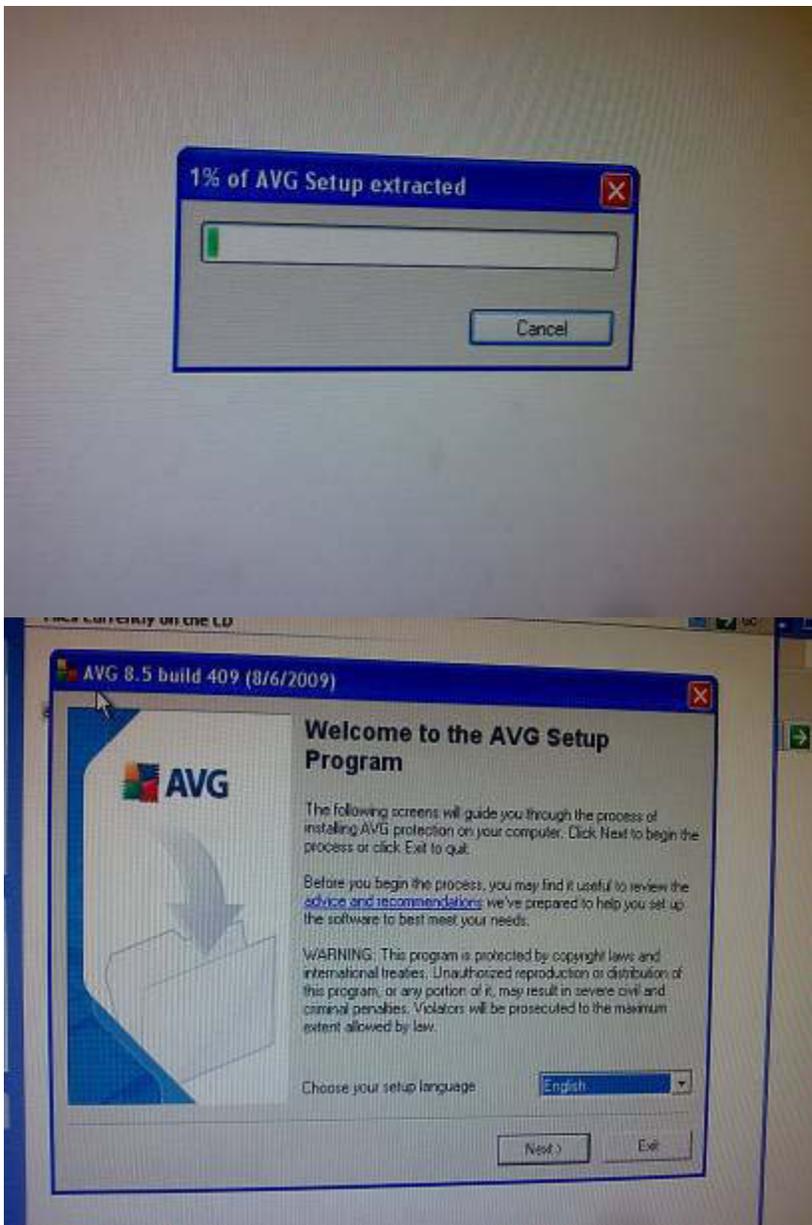
This shows me starting the installation of AVG, an Anti-Virus software.
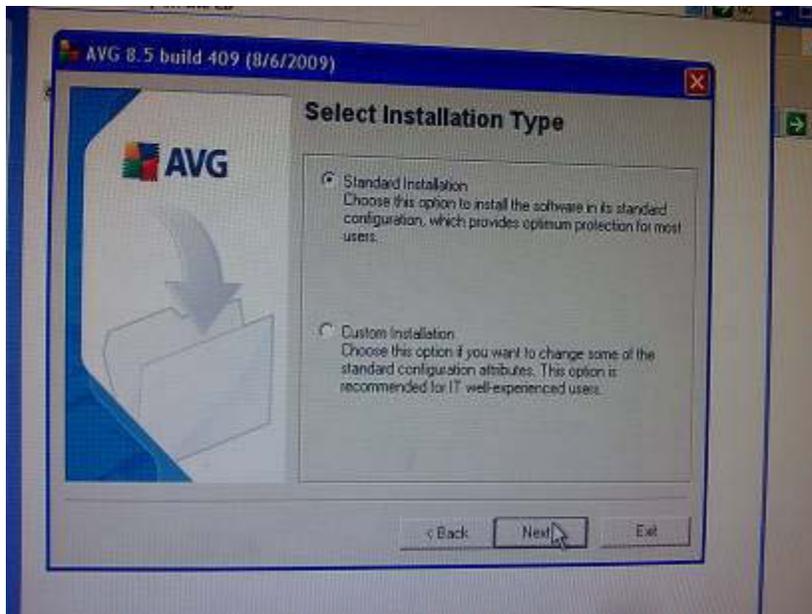
I chose the standard installation setup.
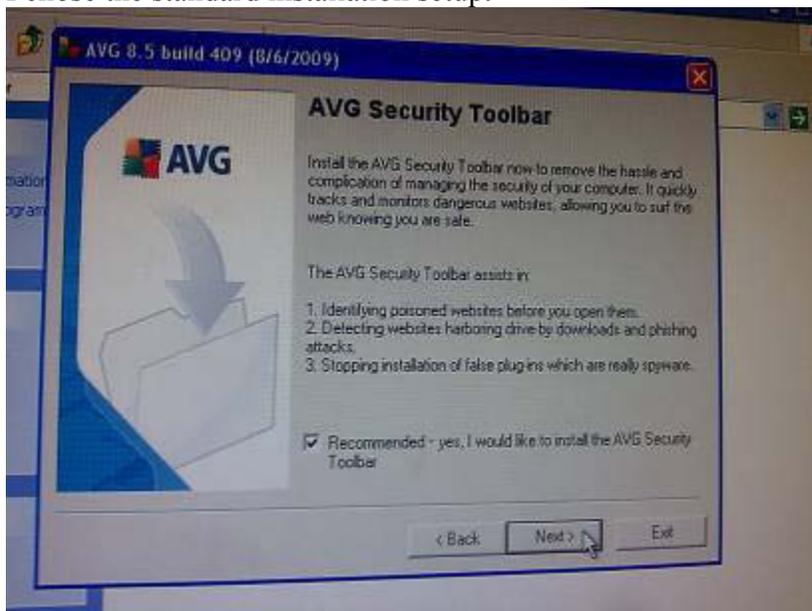
I chose to install the AVG Security Toolbar, as I think it would be better to have an extra toolbar installed for added security.

I chose to install the AVG Firewall rather than the Windows one, as it meant that I can have the majority of my security setup within one software package.
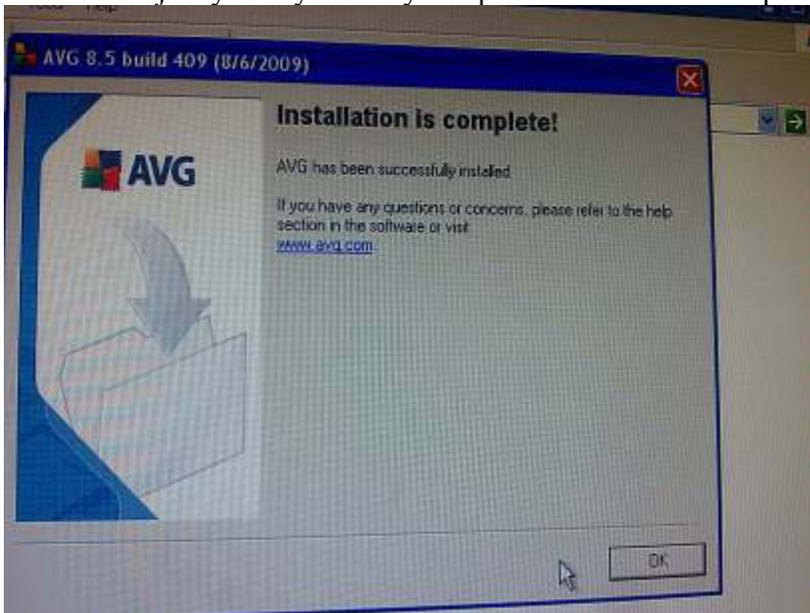
This photo shows that AVG was successfully installed on the computer.
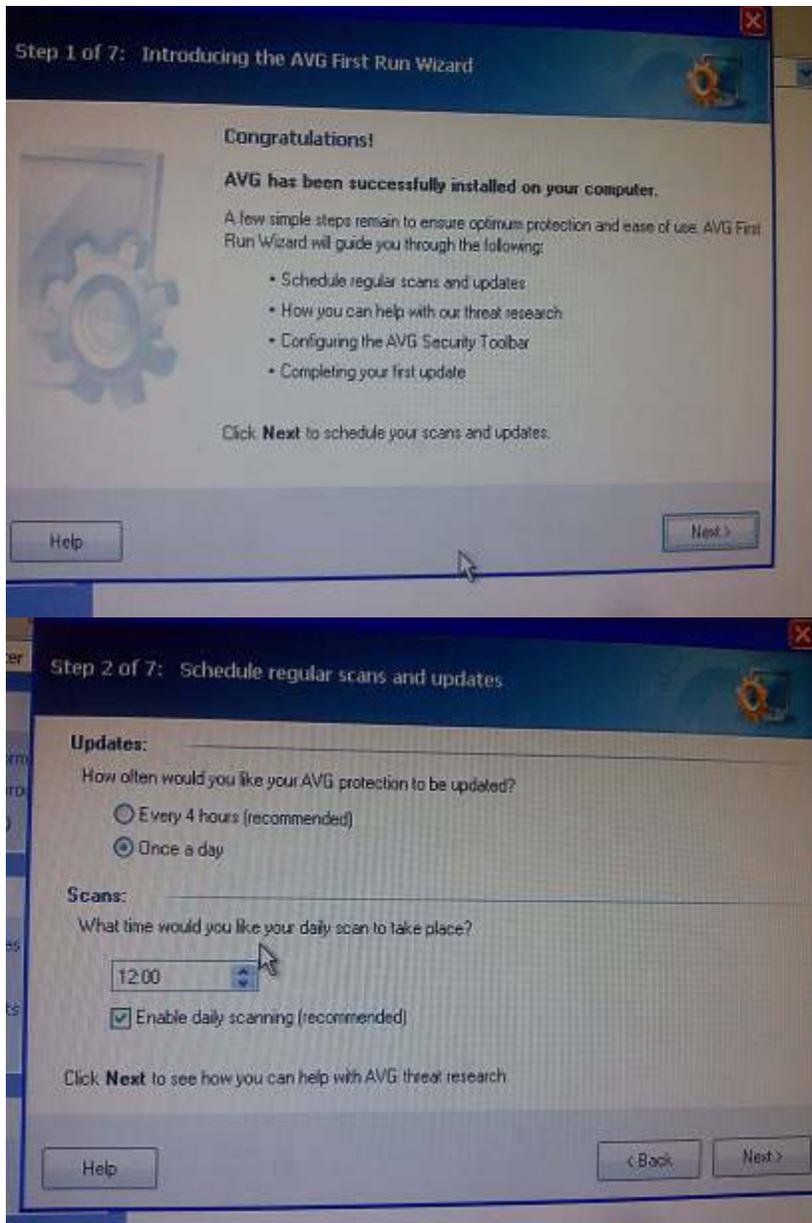
As it was the first time AVG was run on the computer, the first run wizard appeared. The second photo shows how often scans and updates should take place.
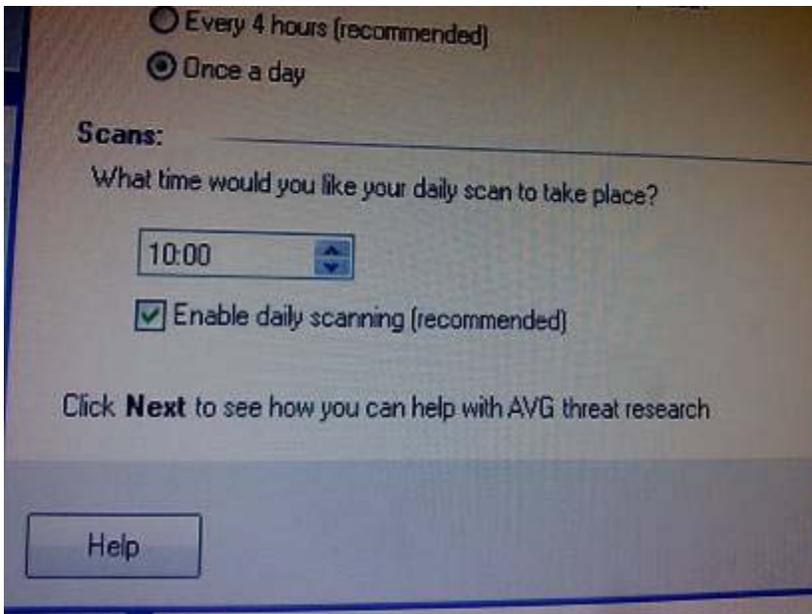
I chose to change the time of the daily scan to 10 AM, as it meant I could make sure that the scheduled scan works.
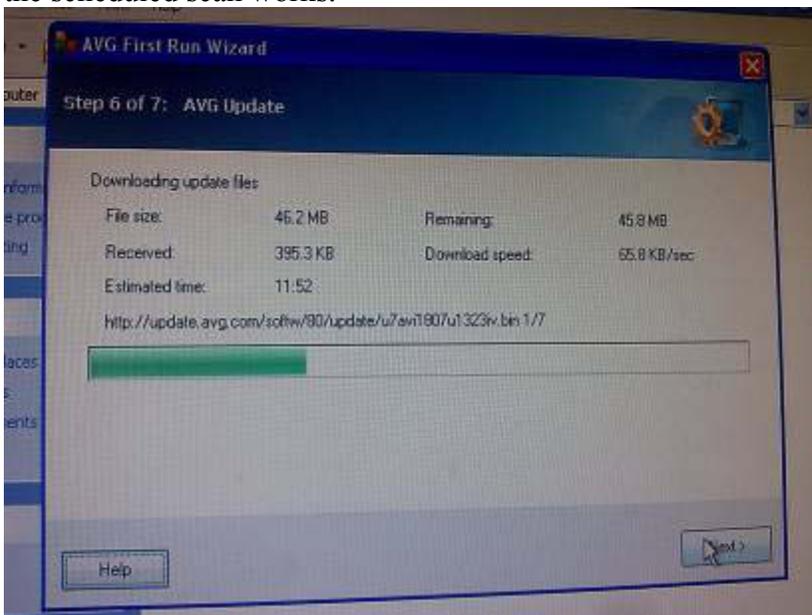
This photo shows AVG updating.
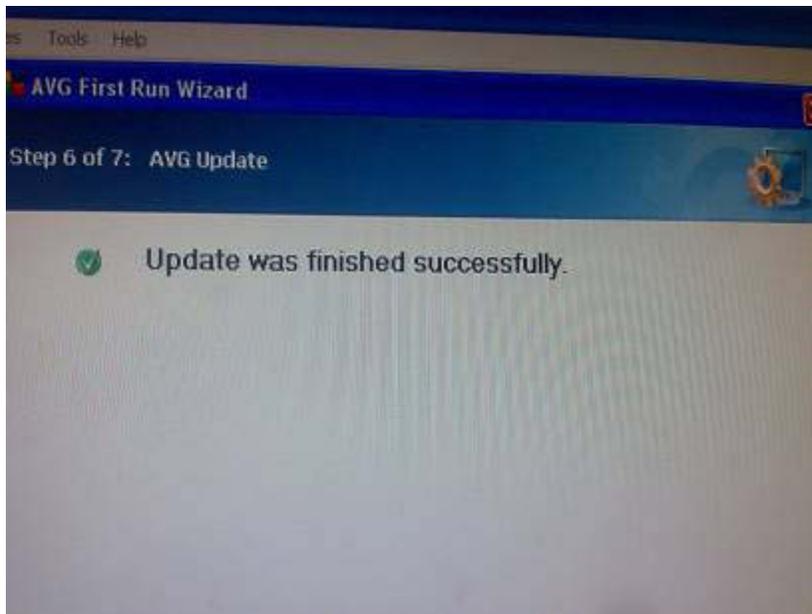
This photo shows that the AVG Update was successful
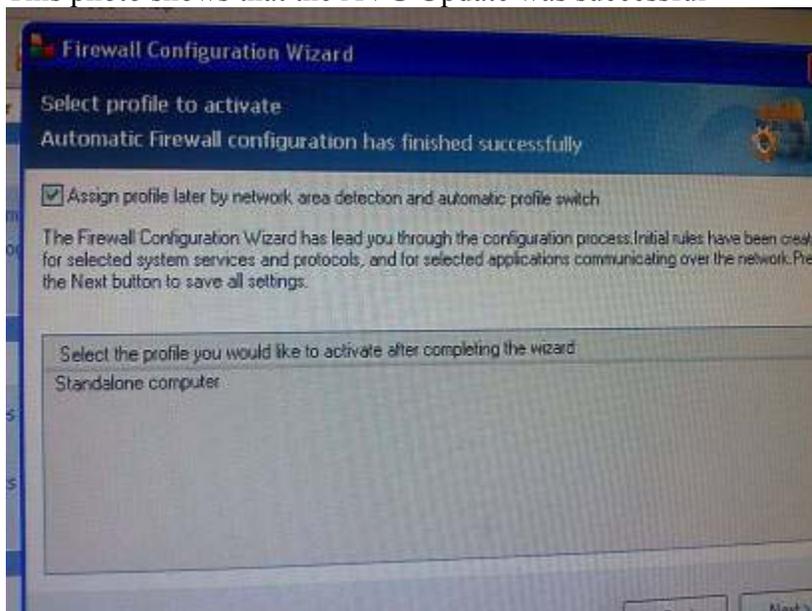
Once the update had finished, the firewall configuration finished, meaning I now had an anti virus software and a firewall installed successfully.

This photo shows that I have a firewall, automatic update and virus protection all installed on the computer.

This shows that AVG is installed correctly.
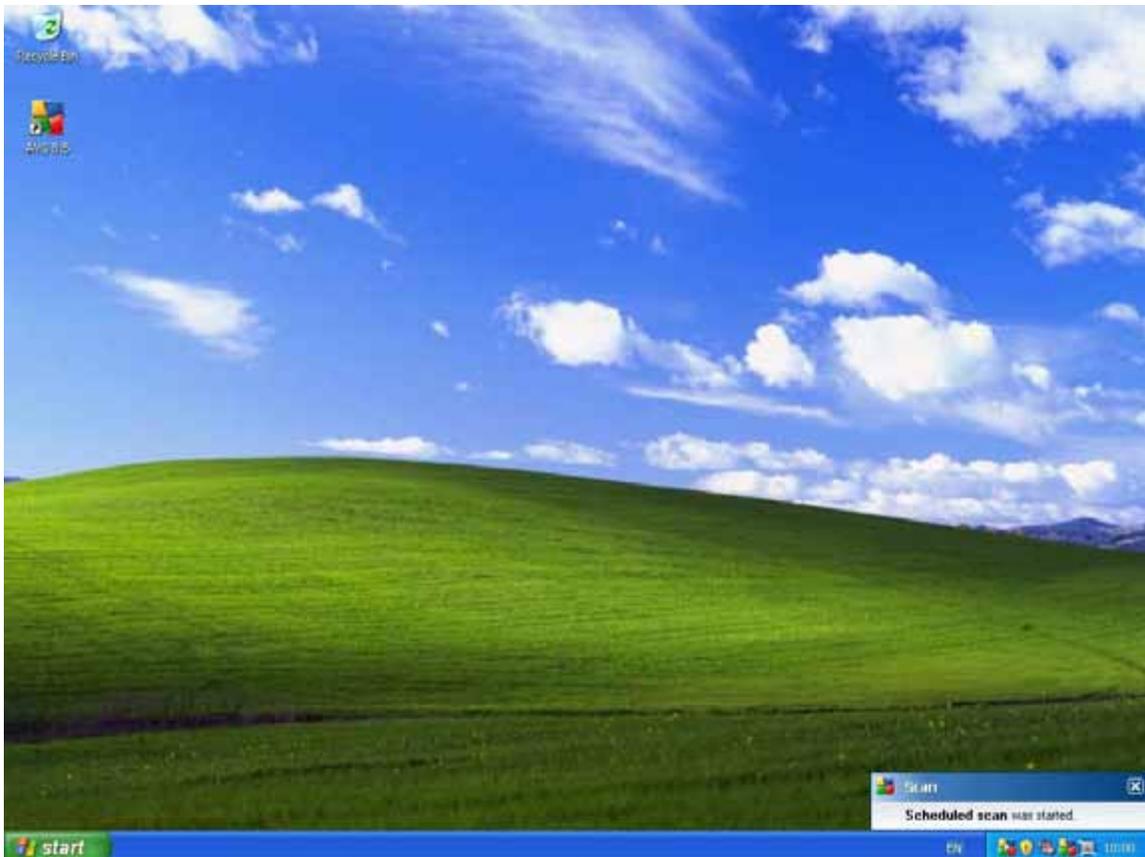
This screenshot shows that the scheduled scan I had set on page 33 had started at the correct time, meaning that I had correctly configured the scheduled scan.
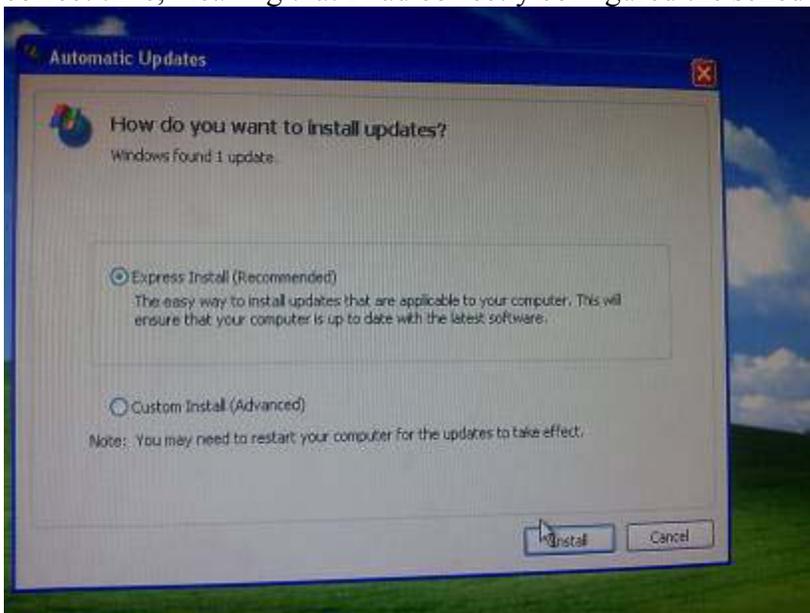
Updates for the computer were ready, so I decided to install these as they may improve the computers performance, or add features.
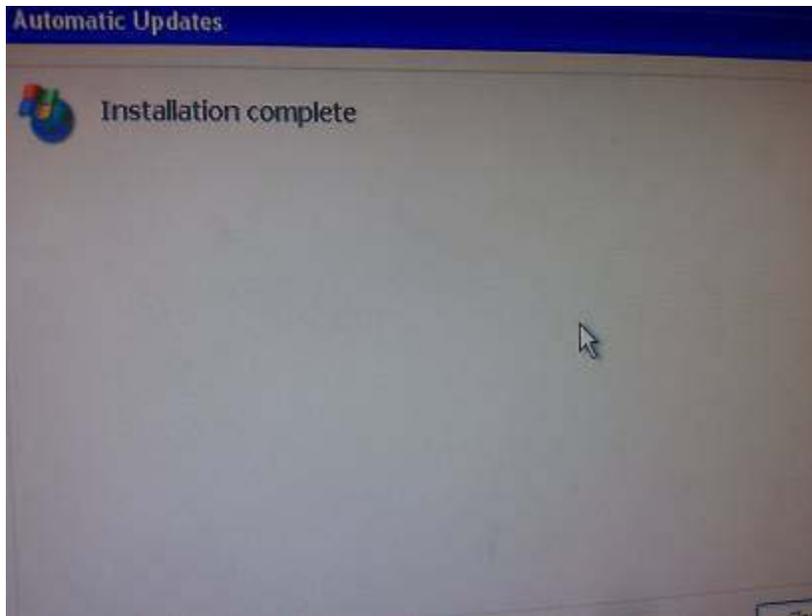
This shows that the update was completed.
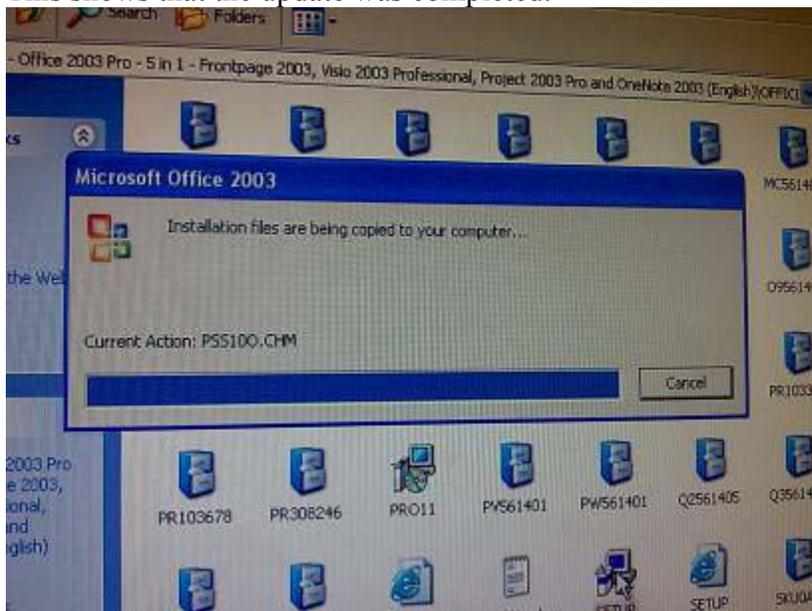
As Wee Promote needs a desktop publishing package, I decided to install Microsoft Office 2003. I chose this as it is very easy to use. I chose this over MS Office 2007 because with the 2007 package, all files have to be saved in Compatibility Mode (98 – 2003) for other versions of MS Office to recognise them, which sometimes can be forgotten if you just hit save.
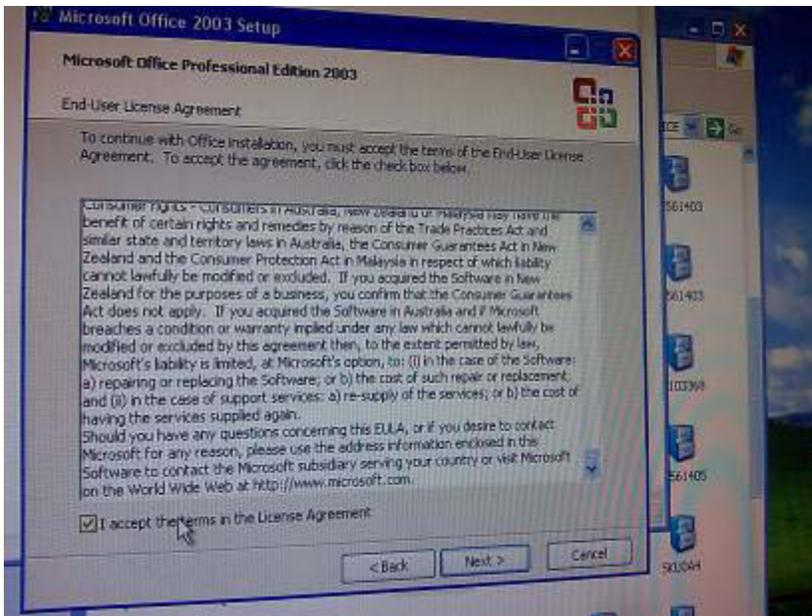
This is the license agreement, which I accepted.
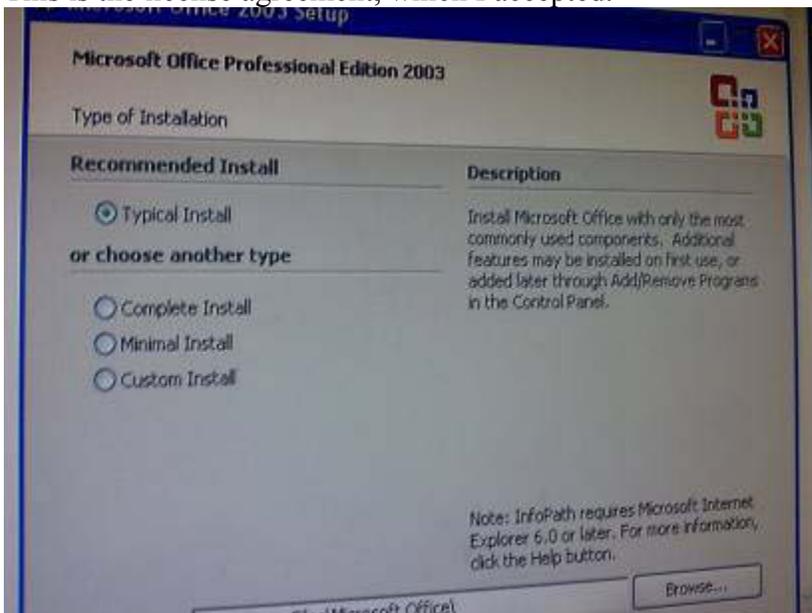
I chose a typical install, as Wee Promote only need to use the most common components (MS Word, Excel, Publisher)

Setup is ready to begin installing and will perform the following tasks:

- **Install the following Microsoft Office 2003 applications**
    - Word   (Run from My Computer)
    - Excel   (Run from My Computer)
    - PowerPoint   (Run from My Computer)
    - Outlook   (Run from My Computer)
    - Publisher   (Run from My Computer)
    - Access   (Run from My Computer)
    - InfoPath   (Run from My Computer)

Space Required on C: 673 MB

Space Available on C: 34 GB

These are the applications that were installed from the MS Office 2003 package.

Microsoft Office Professional Edition 2003

Setup Completed

Microsoft Office 2003 Setup has completed successfully.

There may be additional components or security updates available online. Check the box below to visit the Office site in your browser after Setup is finished.

☐ Check the Web for updates and additional downloads

During Setup, Office installation files were copied to drive C:. Deleting these files can save approximately 282 MB of disk space, but it is recommended that you keep them to assist with Office maintenance and updating

☐ Delete installation files

This shows that the setup had completed successfully.

This shows that each of the applications were now in the start menu, under programs and Microsoft Office.
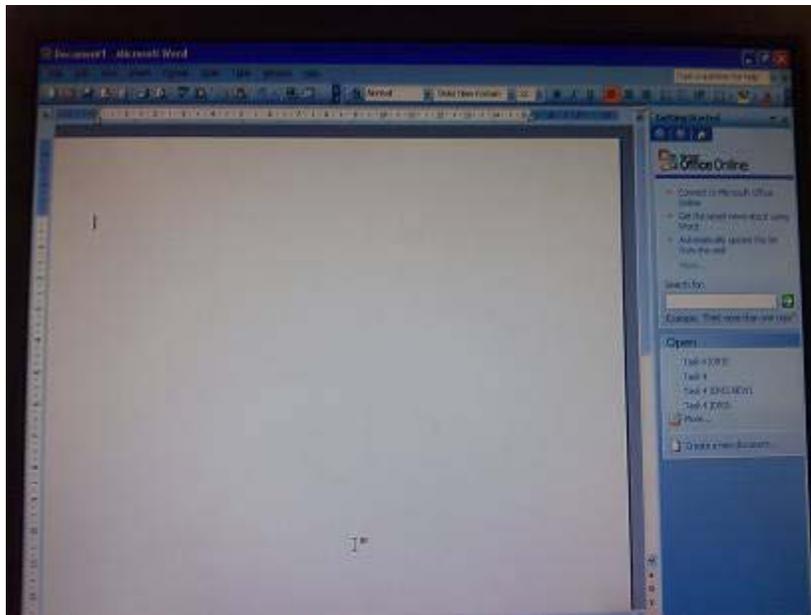
This shows that Microsoft Word loaded correctly, proving that the MS Office 2003 package had installed correctly.

Wee Promote needed burning software. I chose to use Burn4Free, as the install time is short in comparison to others, and has almost identical features.

I chose to not have the Burn4Free toolbar, as Wee Promote would not use the links.

This is the license agreement for Burn4Free.
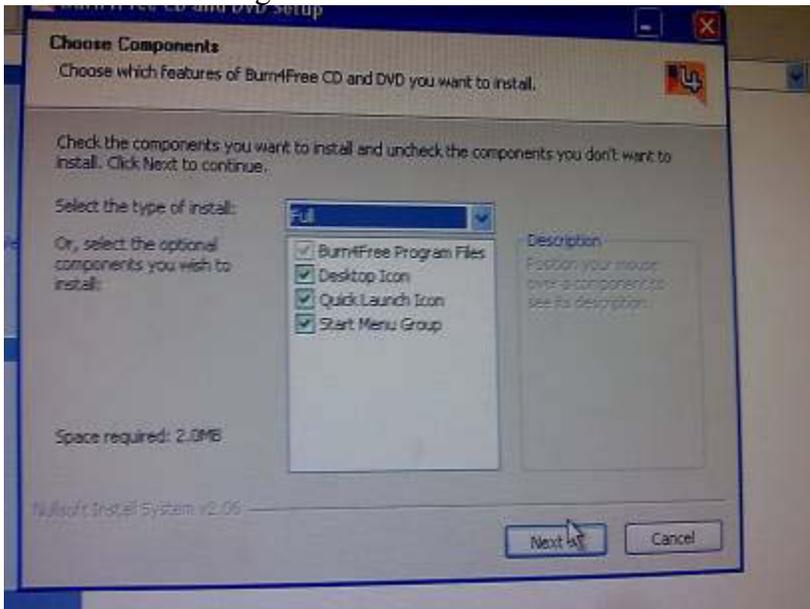
This shows the components of Burn4Free I decided to install. I wanted the desktop icon as it allowed quick access to the software. The start menu navigations is in case the desktop shortcut is accidently deleted, or removed to free up space.

This shows that Burn4Free had successfully installed on the computer.
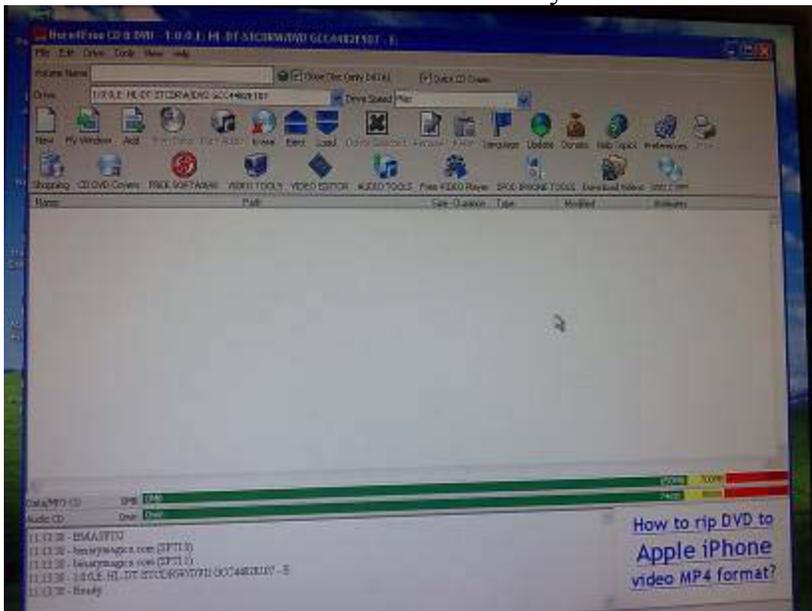
This shows that Burn4Free runs successfully, proving the install was a success.
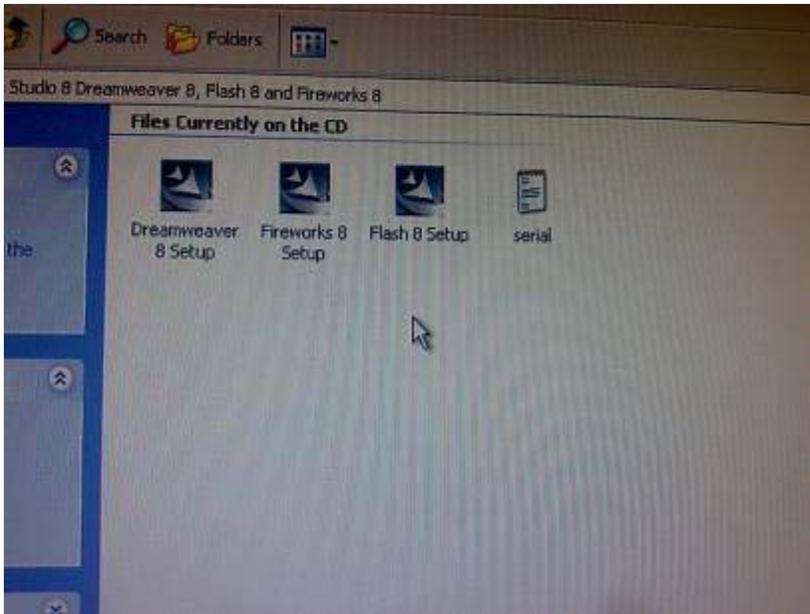
I have decided to install the Macromedia Studio 8 Suite, which includes Dreamweaver 8, a web authoring process. The installation of the software was identical to that for MS Office 2003 and Burn4Free.
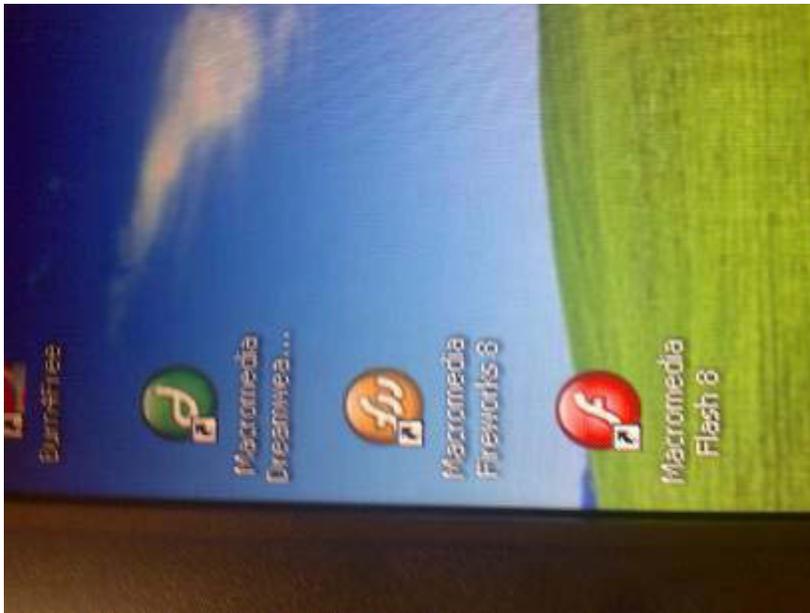
This image shows that Dreamweaver, Fireworks and Flash are installed and are on the desktop menu. (Though the image is rotated at the wrong angle.)
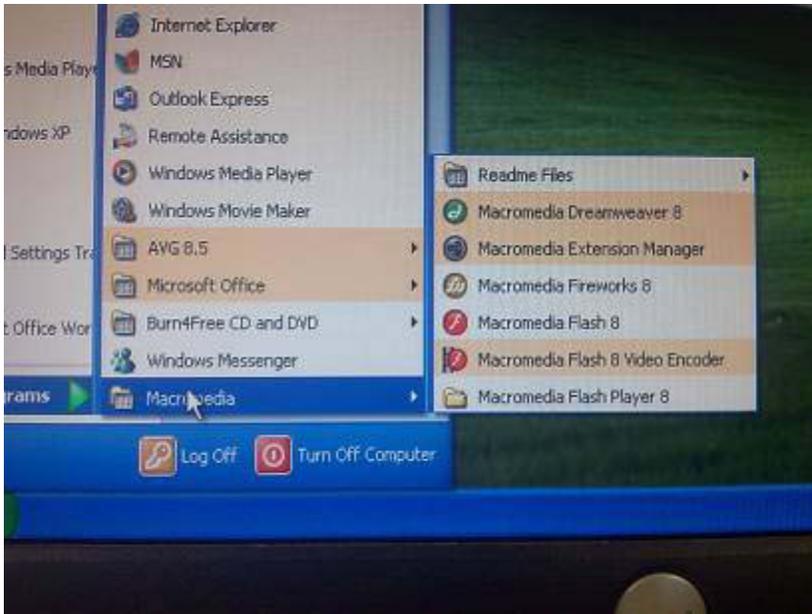
This image shows that the Macromedia Studio 8 software is in the programs section of the Start Menu.
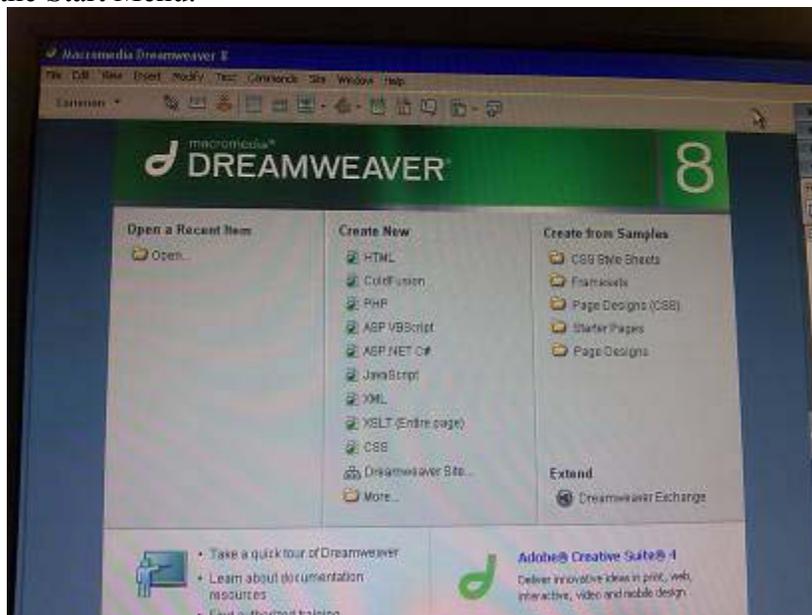
This image shows that Dreamweaver 8 runs successfully.

This image shows that Fireworks 8 loads properly.
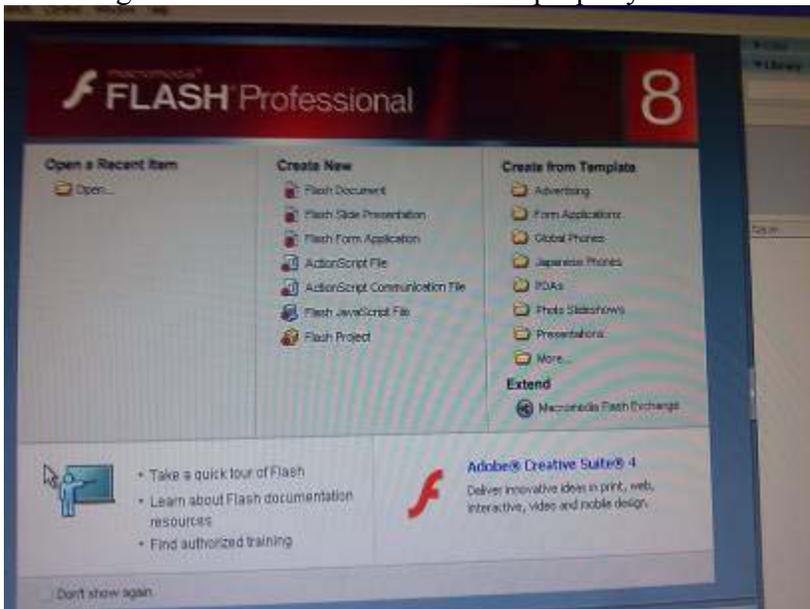
This shows that Flash 8 works and loads properly, proving that the Macromedia Studio 8 Suite had installed correctly.
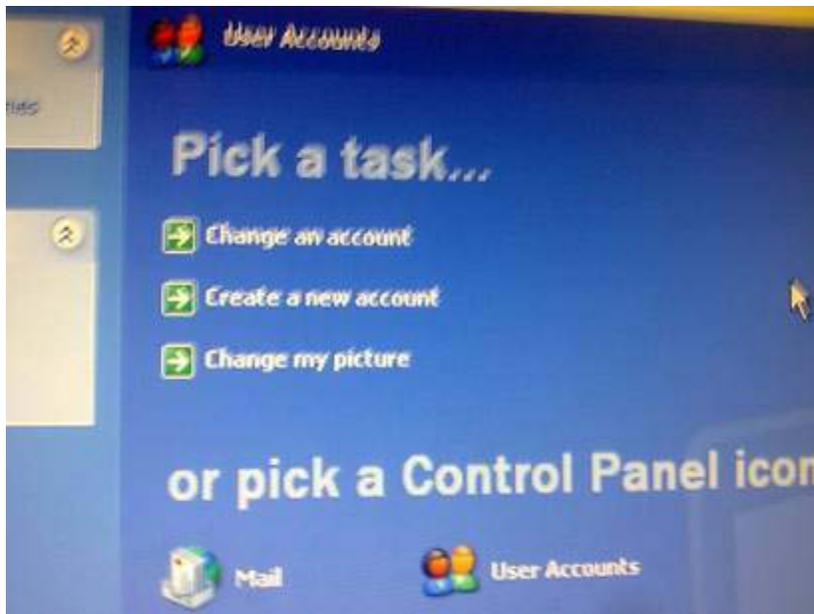
I need to create a new account for the staff of Wee Promote.

I am going to give the account a generic name, Staff Account, just for illustrational purposes.
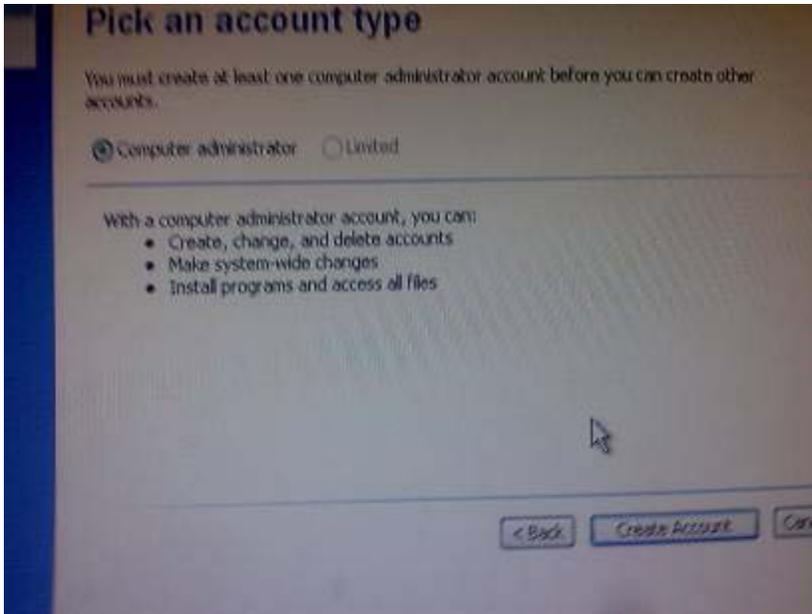
I am going to give the account administrator capabilities, as the staff may need to make changes in the system without logging out and then back in on the admin account.
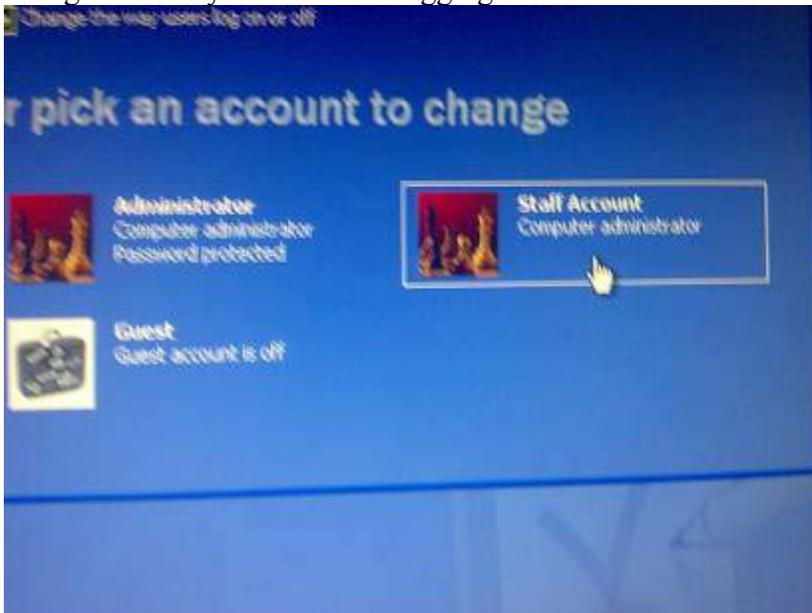
This shows that the staff account has been set up correctly.

These are the options under the Staff Account. I am going to add a password, as Wee Promote need to have security as they are handling customers personal details.

This is the password creation screen.
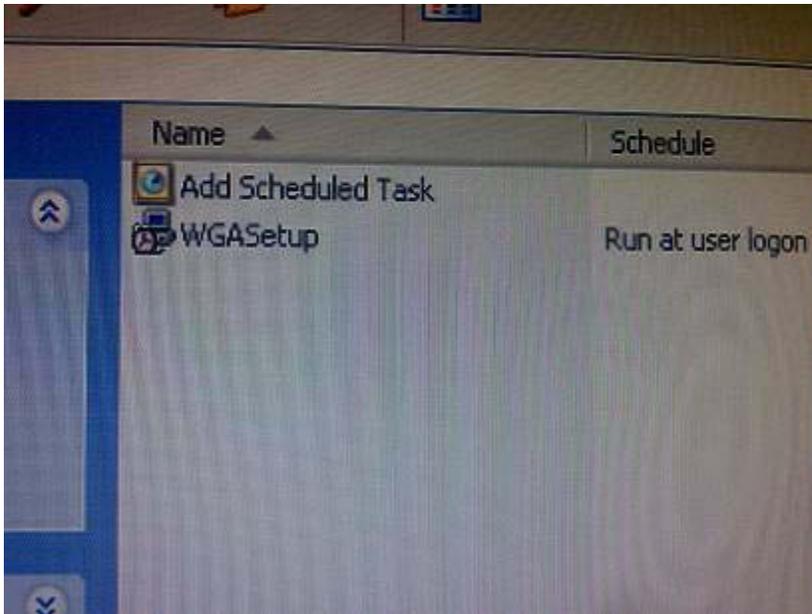
I am now going to set up a scheduled task, other than the AVG scan.

I have decided to do a Windows Update, as Wee Promote need a computer that is constantly up to date with the latest software.

Type a name for this task. The task name can be the same name as the program name.

Windows Update

Perform this task:

⦿ Daily
○ Weekly
○ Monthly
○ One time only
○ When my computer starts
○ When I log on
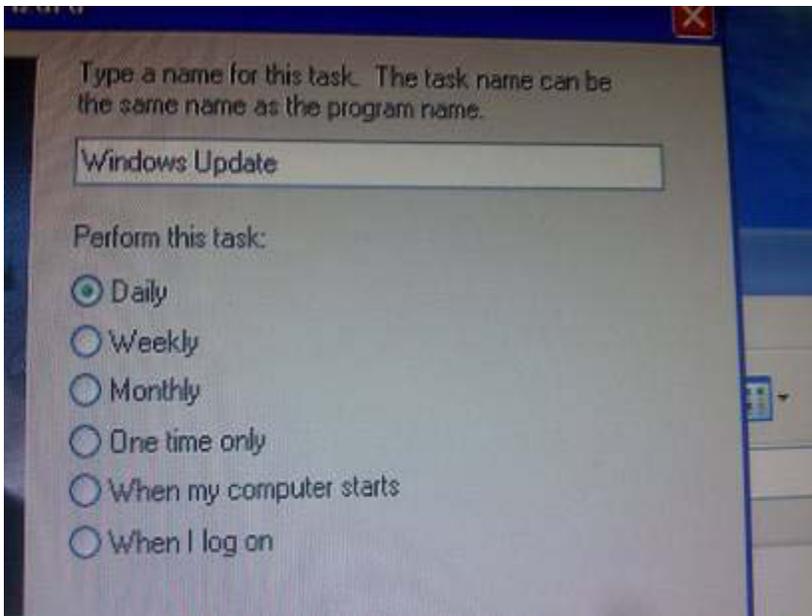
I am going to get the update to be performed on a daily basis.

Select the time and day you want this task to start.

Start time:

09:40

Perform this task:

⦿ Every Day
○ Weekdays
○ Every [1] days

Start date:
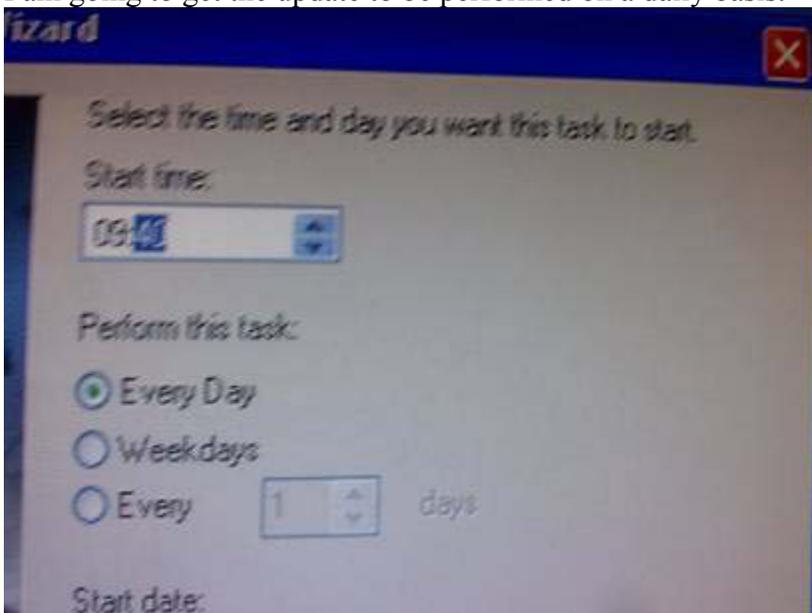
I have set the task for 9:40 in the morning.
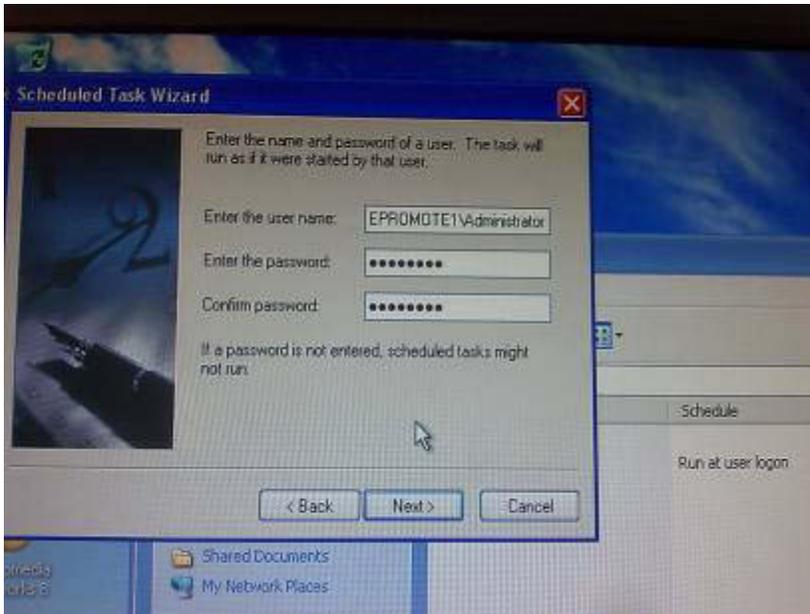
I had to enter the accounts password to proceed with adding the update as a scheduled task.
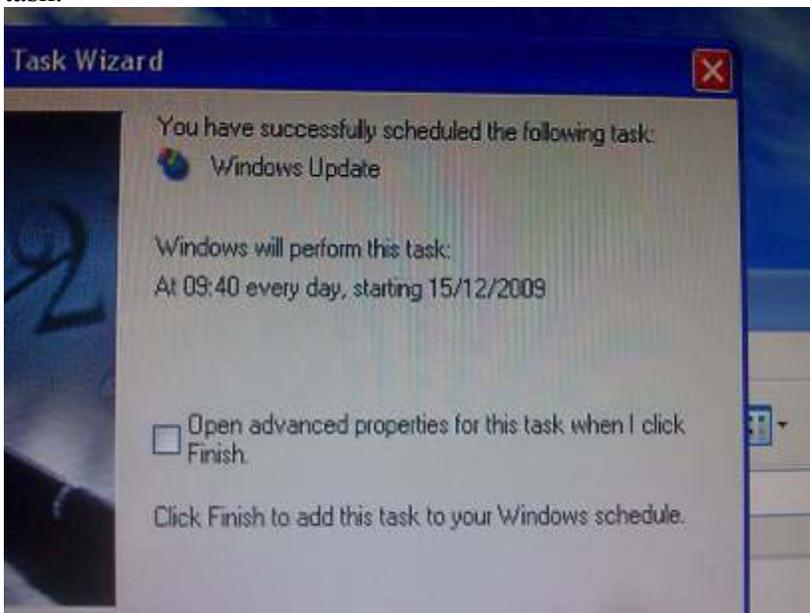
This shows that the scheduled update had been successfully scheduled.
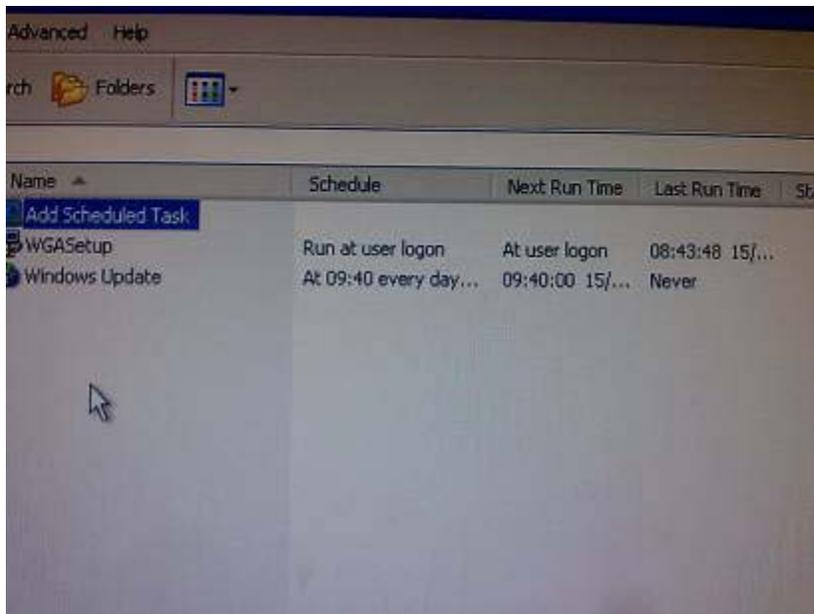
This is now the new list with the scheduled update in the scheduled tasks list.

At 9:40 (as scheduled), the windows update started, as scheduled, proving that I had set up the scheduled update correctly.

Wee Promote need use of a printer, so I am going to install a printer.
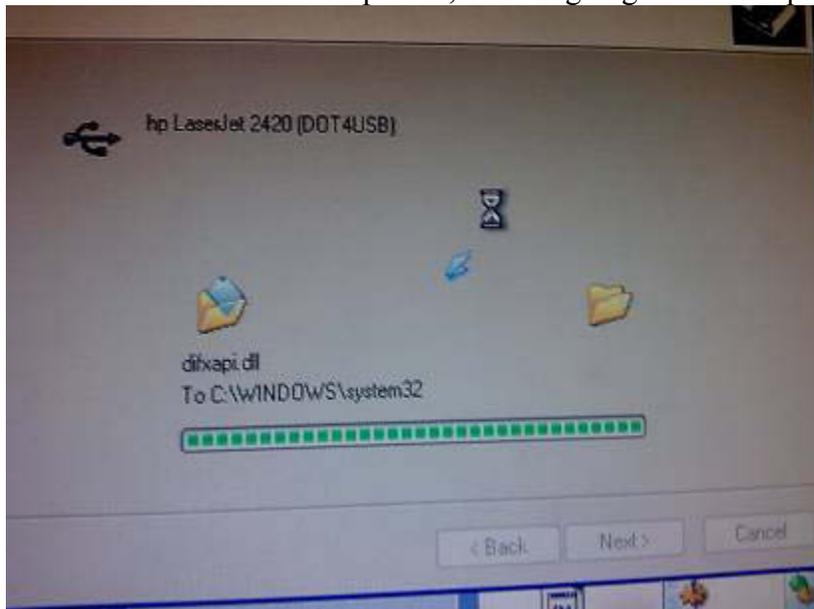
This shows that the drivers and set up for the printer has been found and is being installed onto the computer.

This shows that the printer has been successfully installed.
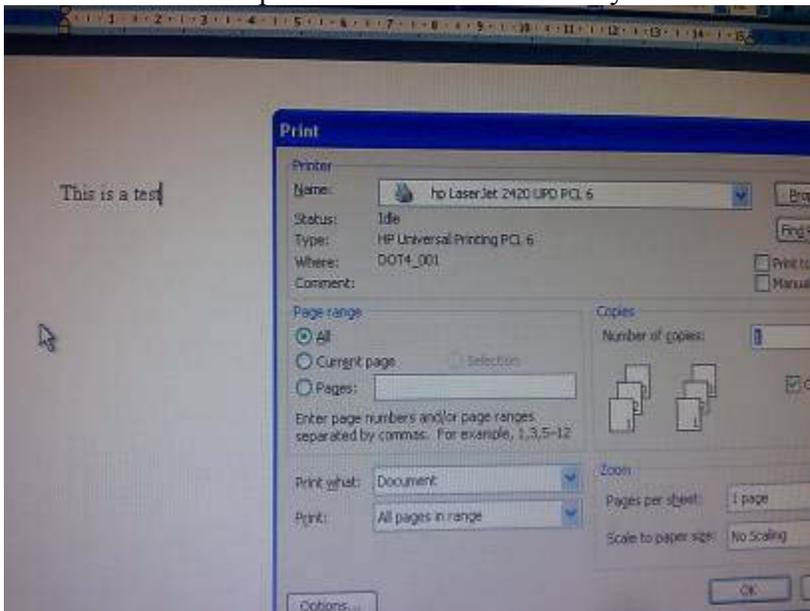
To prove it has worked, I opened up Microsoft Word and typed a simple message "This is a test", just to prove the printer works. I have the print menu up with the name of the printer in the printer name menu to prove it is the same printer.
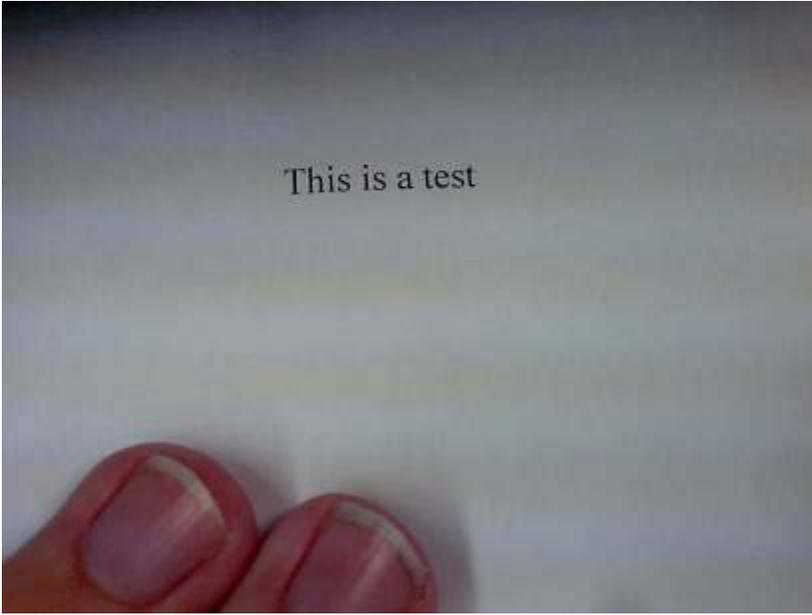
This is the document printed out. I have kept the document in its original form too as proof.

This is a test

G043 Practical Work Log

Activity Selected and Reason	Steps Taken To Complete Activity	Problems Encountered	Solutions Implemented	Evidence Location
Configuring the BIOS	Correct the date and time – Highlight the date and time and edit it using the space bar. Tell the PC there are drives in the computer (Hard disk drive and CD-Rom Drive) – Highlight, and choose by pressing enter. Tell the computer to boot from the CD drive, then the hard disk drive and then an external USB flash drive	PC wouldn't boot from HDD.	Switch off options for booting from CD / disette.	
Installing and configuring OS (Windows XP as this is the more user friendly and up to date OS)	Run the Windows XP disk, agree to the terms and conditions, set the hard drive partitions. Wait for the install to complete, set the region and language options, input languages, and name of main user/organisation. Enter the serial number for the product, set the administrator password, set the date and time zone, and wait for it to finish.	As above, PC. wouldn't boot OS from HDD.	I turned off the options to boot from CD, and it seemed to work.	
Installing and configuring security utilities (Possibly AVG as this has all the features	Insert the disk with the security utilities on into the CD drive, and install onto the computer, by clicking on the .EXE file.	–	–	

required in one package)	Configure the software so that it automatically updates on a regular basis (daily?) and scans on a regular basis, and to tell the software what to do with threats (eliminate, put into a vault)			
Installing and configuring application software	Insert the disk with the application software (burning software, Microsoft Office), and install it onto the computer. Then configure the software to tailor the needs of Wee Promote, such as the toolbars required down to the location they default save and where they burn.	Microsoft office – Product key didn't initially work.	Tried a second product key, and it worked.	
Scheduling Tasks	I am going to set up scheduled tasks, such as a regular backup or defragmentation.			
Connect and configure keyboard/mouse Configure Monitor.	I am going to configure the speed of the mouse, and put the keyboard into English (UK) by going into control panel.	Screen resolution way out, no driver installed.	Install driver.	
Create an Administration account and a staff account	I am going to setup an administration account so that any necessary changes can be, but create a staff account so that only 1 is accessed for staff use, whilst the other is for admin use.			

Test	Test Description	Expected Outcome	Pass / Fail	Actual Outcome	Corrective Action	Retest
Test to see if PC recognises different drives	Tell the computer to "Auto" find drives in primary and secondary master/slave positions. Reboot PC. If done correctly, a hard disk drive and a CD drive should be found.	The computer should recognise. A Hard Disk Drive and a CD Drive	Pass.	Computer found both drives		
Test date and time is set	Check if the date and time is set correctly under the BIOS parameters.	Date and time should be correct	Pass.	Date and Time is set correct.		
Run OS from CD	Insert CD into CD drive. If I have configured the BIOS correctly, the operating system will boot from the CD drive.	OS should run from CD.	Pass	OS ran and installed from the CD.		
Correct configuration of	Make sure time zone and layout	Time should be correct zone.	Pass	Time Zone is correct.		

OS	is correctly set. I will check time zone is 00:00 London.					
Correct installation of an anti-virus/security software	If I have done this correctly, the software will be installed and the security software will allow me to do a scan of the computer.	The software should be installed, and a scan should be able to be done.	Pass	The software loaded up and scanned at the scheduled time.		
Correct installation of burning software	If I have installed the burning software, I should be able to burn data as audio data, video data, and general data onto an optical disk for access via a computer.					
Correct installation of application software	If installed correctly, I should be able to create various documents, such as databases and	The software at should be installed and run correctly	Pass.	The software installed correctly and now I have all the options I needed		

	word processed documents (letters).				
Correct configuration of scheduled tasks	If I have done it correctly, I should be able to tell the computer to run a backup or a defragmentation at a certain time and it will run at the allotted time.				
Tell to boot from various locations	If I have done correctly, if I connect a USB flash drive, the computer will attempt to boot from that. If I insert an optical disk, the computer will attempt to boot from that. If there is nothing else connected, then the computer will boot up from the hard drive.	Should boot from USB (if connected) then CD, then HDD.	Fail	Booted from CD fine, didn't boot from HDD. Removed boot off CD option.	

Hardware Requirements

Component	Component Name	Exact Component Specification	Price	Justification	Alternatives	Why I'm not Using These	Image
Processor	Intel Core i7 Extreme Edition i7-975	(3.33GHz), 6.4GTs/8MB Cache	£723	Fastest processor available, able to handle multiple demanding tasks at once. Suitable for video conferencing.	Intel Core i7 Quad 860 2.80 8MB - £211 Intel Core i7 Quad 870 2.93 8MB - £407	These are not as fast as my chosen component, although they would make good replacements if I could not get the chosen component.	
RAM	6Gb Dominator GT	Tri-DDR3 2000MHz	Approx £160	RAM which has a lot of memory, which is ideal for video conferencing and the more demanding tasks. As the OS is 64bit, it can take 6gb of RAM	Corsair Memory DOMINATOR GT 4GB 1066MHz C5 DDR2 with Airflow Fan - £121	This is about half the speed of the chosen RAM, but would be suitable if I was to use a 32bit OS.	

Motherboard	ASUS Rampage II Extreme	DDR3, 3-Way SLI, CrossFireX on Demand	Approx £260	A motherboard that supports 3PCI, which is needed for a few of the components.	Asus S1366 Intel X58 ATX A L (£134)		
Hard Disk Drive		1 TB SATA 3GBs, 16MB Cache, 7200 rpm	Approx £100	A large HDD is needed for Wee Promote, and this has a fast write rotation rate (7200 rpm), meaning access to the data is very fast.	Hitachi 3.5" 1TB 32MB SATA HDD (£110) Iomega 1TB Prestige 3.5" HDD USB2.0 (£73)	I haven't picked these two because the Iomega HDD uses a USB 2.0 port, which isn't as fast as a SATA Input.	
Graphics Card	ATI Radeon	1Gb HD 5770 PCI Express – DirectX 11	Approx £132	Very good graphics card, capable of showing High Definition images, meaning the quality is going to be top notch.	Gigabyte ATI Radeon 4350 HD 650Mhz 512MB DDR2 PCI-Express DVI	Only supports DDR2, which isn't as fast as DDR3.	

Sound Card	Sound Blaster X-Fi Xtreme Audio	PCI, 7.1 Channel Surround, 24-bit	£36	Excellent surround sound, suitable for professional audio creating.	Best Value 5.1 Channel PCI Sound Card (£11)	I didn't choose any of these because they only offer 5.1 Surround Sound, which is good but 7.1 is better, and provides more clarity.	
Network Features	Onboard LAN Port	Onboard 10/100/1000 Gigabit LAN Port	N/A	It is better to have a built in onboard LAN Port as wired internet connection is better than wireless. The connection on wired is more consistent and less prone to disconnections			
Memory Card Reader	Internal 52-In-1	N/A	Approx £10	If Wee Promote need to use a memory stick for storage, then the files			

				can be easily accessed with an internal 52-in-1 reader, as there are many different types of memory stick, such as SD, MS Pro Duo, and XD			
Optical Disk Drive		22x Dual Layer DVD Writer +-R/+-RW/RAM	Approx £50	Wee Promote need an optical disk drive to burn off data and video onto disk for companies and for video presentations. The faster the write rate, the better.	Freecom 22x DVD-RW USB2 Lightscribe Silver (£40)	Uses USB rather than the designated sockets, meaning transfer rate of data to drive is slower, though Lightscribe is fast itself.	
Monitor	LG 22"	22" HD (720p), 1680x1050 pixels	Approx £110	Wee Promote need a good quality monitor as many of their designs require high quality	Samsung 22" LD220 5ms Lapfit Monitor with easy USB access (£140)	Not HD, so the quality isn't as good, though the addition of extra USB slots is	

				visuals. This means that the monitor needs to be of a high quality, and HD is just perfect.		useful.	
Keyboard and Mouse	Logitech Deluxe 660 Cordless Keyboard and Optical Mouse	UK standard Qwerty keyboard, with wireless optical mouse, range up to 15 feet.	Approx £20	Wee Promote need a keyboard and mouse to input commands. A wireless keyboard and mouse means that it is easier to set up, and less space is wasted with a tangle of wires.	Logitech Cordless Desktop MX5500 Revolution - Wireless Keyboard & Mouse (£110)	Far too expensive, near identical to the one I have chosen. Only addition is of media keys.	
Speakers	Logitech S220 2.1	2.1 channel surround sound, with integrated amplifier.	Approx £15	Wee Promote need a good quality audio system when they are creating their audio and interactive multimedia productions.	Logitech S150 Digital USB Black Multimedia Speakers 1.2 Watt - Business (£6)	I didn't choose the USB speakers, as it uses up a valuable USB slot, whilst my chosen speakers use	

				These speakers are good quality and cheap.		the PS/2 Port. Also, the surround sound is better on the S220's rather than the S150	
Webcam	Logitech QuickCam Sphere AF	Records HD video (ideal, as the chosen monitor is HD), 20 megapixel lens, automatic focus, built in microphone.	Approx £80	Video conferencing requires a good quality camera, and this camera is HD which is very good quality. The auto focus is useful as the image wont appear blury	Logitech QuickCam Pro 9000 Hi-Speed USB Web Camera (£50)	The Pro 9000 has a 20 megapixel lens like the Sphere, but it is not HD, meaning the Sphere offers the better quality image.	
Printer	Photosmart Plus All-In-One Printer – B209A	Scanner, Printer and Photocopier all in one.	Approx £130	Ideal for Wee Promote, as this printer has everything needed in one, meaning that less space is wasted.	HP Officejet Pro 8500 All-in-One - multifunction (fax / copier / printer / scanner) (colour) (£206)	The office jet 8500 is very expensive, and fax is not needed.	

External Hard Disk Drive.	FreeAgent Desk 1TB 7200 rpm, High-Speed USB	7200 rotations per minute, 1 terabyte storage, USB 2.0 for high transfer speed, with 32mb buffer.	Approx £80	Ideal for Wee Promote as they will be doing regular backups of the data on the system. This external hard disk drive is good as it has a high rpm, meaning the data can be accessed, read and wrote quicker, and with the USB 2.0 port, the data can be transferred to and from the pc very quickly.	Freecom 1TB XS 7200RPM USB2 TURBO 16MB (£75)	I didn't choose the Freecom XS external HDD as the buffer speed was only 16mb, half of the FreeAgent 1, and for only £5 less.	

Software Requirements

Software Type	Software Name and Version	Price Jus	tification	Alternatives	Why I'm not Using These	Image
Language Translator	LEC Translate 2005 Business (Arabic, Chinese, Dutch, French, German, Hebrew, Italian, Japanese, Korean, Polish, Portuguese, Russian, Spanish and Ukrainian)	£200	Translates English to and from a variety of different languages (as stated to the side). Costs a lot initially, but very useful if the company expands and deals with people from other countries, as the large number of different languages is very useful.	Google Translator	Google translator is not very accurate, and therefore is very likely to make mistakes in translation, as it does it in the literal sense (e.g. the French say "I have eyes blue", whilst the English say "I have blue eyes", but Google Translator translates it literally, so it is technically wrong in French).	(No Image Available)

Office / Word Processing	Microsoft Office 2007 Professional (1 Year license) Version 2	£230	Microsoft Office 2007 Professional is the complete package, with word processing, data handling, presentation software	Microsoft Office 2007 Standard (£281) (Lifetime License)	The Standard edition doesn't include everything the Professional edition does. The Professional edition may be for only 1 year license, but this can be renewed and not at the full price for the package.	
Burning Software	Roxio Creator 2010 Pro Win	£52 Ma	ny features, including Audio converting (mp3/audio book), video/audio/image/data burning. Also burns to Blu-Ray Disk and HD DVD, as well as CD and DVD's, so ideal for high definition software. Includes own video editing software, though Corel VideoStudio has a wider range of features that is more appealing than the additional software included with	Roxio Creator 2010 Win (£41)	The Pro Win edition includes many more features the Win edition, including file conversion (for the right format a DVD or CD player to read).	

			this.			
Image Editing Software / Web Authoring Software / Portable Software Converter (PDF Reader) / Flash Creator	Adobe Creative Suit 4 Design Premium (Version 4)	£600	This package includes a large variety of Adobe Software. The full list is: InDesign CS4 (Desktop Publishing) Photoshop CS4 Extended and Illustrator CS4 (Image Editing/Creating Software) Flash CS4 Professional (Flash Creator) Dreamweaver CS4 (Web Authoring Software) Fireworks CS4 Acrobat 9 Pro (PDF Reader/Converter) Adobe Bridge CS4 Adobe Device Central CS4	Corel Paint Shop Pro Photo X2 Ultimate (Version 1 £40) Xara Software Xtreme Pro Retail (Version 4 £137) Nuance PDF Converter Professional 6 (£75)	The Adobe package has everything needed and more. All of the software included are professional in terms of quality and have a large variety of features that a company like Wee Promote could use. The alternatives are all good for what they are, but the Adobe package is of a higher quality.	(No Image Available)

			Version Cue CS4			
Audio Editing Software	Roxio RecordNow Music Lab 10 Win	£16	Converts from and to almost all audio formats. Can use a microphone and will record voice, allowing user to edit voice accordingly. Can mix and edit audio, and can organise music too.	None Found	N/A	
Video Editing Software	Corel VideoStudio Pro X2 Ultimate (Version 1)	(£69)	Many features (Motion blur, editable lighting, etc.) set this apart from others. Ideal for creating professional quality media.	Corel VideoStudio Express 2010 (£34)	The ProX2 Ultimate edition has more features to the video editing than Express 2010. Both are very similar, but the ProX2 Ultimate is more suited to Wee Promote, as it is for professional quality media.	
Anti Virus Software Package	Microsoft Security Suite 2007	Free with Microsoft Windows 07 Professional 64Bit Edition	Includes all main features, including firewalls, anti-spam, anti-virus, anti-piracy and more in the 1 package	McAfee Total Protection for Small Businesses (£250)	MS Security Suite is free and has many of the features the McAfee Total Protection has. The McAfee Total	(No Image Available)

					Protection costs quite a lot, pushing the total price past the budge.	
Operating System	Windows 7 Professional 64Bit Edition	£103 (Included on PC)	Everything other Windows 7 packages have, but in 64Bit mode, so can have larger RAM installed for a faster running computer.	Windows 7 Ultimate Edition (£150)	The Ultimate Edition has few features more than the Professional edition, and costs nearly £50 more. For that reason, the Professional edition is chosen	
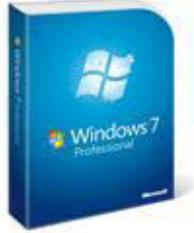
Software Requirements

A quick search didn't find any, need to do more research.

Software Type	Software Name and Version	Price	Justification	Alternatives	Why I'm not Using These	Image
Language Translator	Google Translator	Free	Translates quite well, though not always accurately.	(Couldn't find any)	N/A	(No Image Available)
Office / Word Processing	Microsoft Office 2007 Professional (1 Year license) Version 2	£230	Microsoft Office 2007 Professional is the complete package, with word processing, data handling, presentation software	Microsoft Office 2007 Standard (£281) (Lifetime License)	The Standard edition doesn't include everything the Professional edition does. The Professional edition may be for only 1 year license, but this can be renewed and not at the full price for the package.	
Burning Software	Roxio Creator 2010 Pro Win	£52	Many features, including Audio converting (mp3/audio book), video/audio/image/data burning. Also burns to Blu-Ray Disk and HD DVD, as well as CD and DVD's, so ideal	Roxio Creator 2010 Win (£41)	The Pro Win edition includes many more features the Win edition, including file conversion (for the right format a DVD or CD player to	

			for high definition software. Includes own video editing software, though Corel VideoStudio has a wider range of features that is more appealing than the additional software included with this.		read).	
Image Editing Software	Corel Paint Shop Pro Photo X2 Ultimate (Version 1)	£40	Professional image editing software ideal for editing images to a very high standard.	Corel Paint Shop Photo Express 2010 (£25)	Pro Ultimate contains more features (Media Recovery, more lighting effects, etc.) than the Express 2010 edition, and for an extra £15 the Pro Ultimate edition is more for the money	
Audio Editing Software	Roxio RecordNow Music Lab 10 Win	£16	Converts from and to almost all audio formats. Can use a microphone and will record voice, allowing user to edit voice accordingly. Can mix and edit audio, and can organise music too.	None Found	N/A	

Could find better software
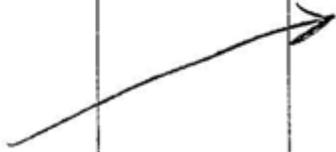
More research to find alternative.

Video Editing Software	Corel VideoStudio Pro X2 Ultimate (Version 1)	(£69)	Many features (Motion blur, editable lighting, etc.) set this apart from others. Ideal for creating professional quality media.	Corel VideoStudio Express 2010 (£34)	The ProX2 Ultimate edition has more features to the video editing than Express 2010. Both are very similar, but the ProX2 Ultimate is more suited to Wee Promote, as it is for professional quality media.	
Anti Virus Software Package	Microsoft Security Suite 2007	Free with Microsoft Windows 07 Professional 64Bit Edition	Includes all main features, including firewalls, anti-spam, anti-virus, anti-piracy and more in the 1 package	McAfee Total Protection for Small Businesses (£250)	MS Security Suite is free and has many of the features the McAfee Total Protection has. The McAfee Total Protection costs quite a lot, pushing the total price past the budge.	(No Image Available)
Website Authoring Software	Xara Software Xtreme Pro Retail (Version 4)	£137	Allows for easy creation of websites, includes tutorials for novices.	Adobe RoboHelp Office Win (Version 8) (£1031)	Adobe RoboHelp is much better than Xara in every respect, but the large price tag means that it would put Wee	(No Image Available)

Find a different Software

					Promote very much over budget.	
Portable File Converter	Nuance PDF Converter Professional 6	£75	Converts to and from PDF. Connect a scanner, and can scan in PDF for ease of editing.	None found ⅄	N/A	(No Image Available)
Operating System	Windows 7 Professional 64Bit Edition	£103	Everything other Windows 7 packages have, but in 64Bit mode, so can have larger RAM installed for a faster running computer.	Windows 7 Ultimate Edition (£150)	The Ultimate Edition has few features more than the Professional edition, and costs nearly £50 more. For that reason, the Professional edition is chosen	

 ⅄ = find an alternative for this software, get something to compare it do

Office / Word Processing	Microsoft Office 2007 Professional (1 Year license) Version 2	£230	Microsoft Office 2007 Professional is the complete package, with word processing, data handling, presentation software	Microsoft Office 2007 Standard (£281) (Lifetime License)	The Standard edition doesn't include everything the Professional edition does. The Professional edition may be for only 1 year license, but this can be renewed and not at the full price for the package.	
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Computer Specification

Processor – Intel Core i7 Extreme Edition i7-975 (3.33GHz), 6.4GTs/8MB Cache
RAM – 6Gb Dominator GT Tri-DDR3 2000MHz
Motherboard – ASUS Rampage II Extreme, DDR3, 3-Way SLI, CrossFireX on Demand
OS – Windows 7 Professional 64 Bit
Memory – Hard Disk Drive – 1 TB SATA 3GBs, 16MB Cache, 7200 rpm
Graphics Card – 1Gb ATI Radeon HD 5770 PCI Express – DirectX 11
Sound Card – Sound Blaster X-Fi Xtreme Audio
Network Facilities – Onboard 10/100/1000 Gigabit LAN Port

Memory Card Reader – Internal 52 in 1
Optical Disk Drive – 22x Dual Layer DVD Writer +-R/+-RW/RAM
Monitor – 22" TFT – 1680x1050 pixels
Keyboard/Mouse – Logitech Deluxe 660 Cordless Keyboard and Optical Mouse
Speakers – Logitech S220 2.1
Webcam – Logitech QuickCam Sphere AF
Printer – HP Photosmart Plus All-In-One Printer – B209A
External Hard Disk Drive – Seagate FreeAgent Desk 1TB 7200 rpm, High-Speed USB
Ports – 1 x PS/2 Keyboard Port
　　　　1 x PS/2 Mouse Port
　　　　8 x USB 2.0
　　　　1 x IEEE 1394a FireWire Port Onboard

Software –　　CD/DVD Authoring Software
　　　　　　　Power DVD
　　　　　　　Norton 360 Suite
　　　　　　　Microsoft Office 2007 Professional

Monthly Subscription:
Broadband – Virgin Media 10mb broadband, £13 a month.

Price - £2560 for the above computer components and SOME software (Stock software).
　　　　+ £200 for language translation software
　　　　+ £52 for burning software
　　　　+ £600 for the Adobe CS4 Suite
　　　　+ £16 for audio editing software
　　　　+ £69 for video editing software
　　　　+ £13 a month broadband subscription

Total Price = £3497
　　　　　　　+ £13 a month broadband subscription

Research Quotation Price

Processor (CPU)	Intel® Core™i7 Processor Extreme Edition i7-975 (3.33GHz) 6.4GTs/8MB Cache
Memory (RAM)	6GB DOMINATOR GT TRI-DDR3 2000MHz (8-8-8-24) - LIFETIME WARRANTY
Motherboard	ASUS® RAMPAGE II EXTREME: DDR3, 3-Way SLI & CrossFireX on Demand
Operating System	Genuine Windows 7 Professional 64 Bit - inc DVD & Licence (£105)
USB Options	8 x USB 2.0 PORTS (6 REAR + 2 FRONT) AS STANDARD
Memory - 1st Hard Disk	1TB SERIAL ATA 3-Gb/s HARD DRIVE WITH 16MB CACHE (7,200rpm)
2nd Hard Disk	NONE
RAID (HDD 1 & 2)	NONE
1st DVD/BLU-RAY Drive	22x DUAL LAYER DVD WRITER ±R/±RW/RAM
2nd DVD/BLU-RAY Drive	NONE
Graphics Card	1GB ATI RADEON™ HD 5770 PCI EXPRESS - DirectX® 11
2nd Graphics Card	NONE
Sound Card	Sound Blaster® X-Fi™ Xtreme Audio (£41)
Network Facilities	ONBOARD 10/100/1000 GIGABIT LAN PORT
Modem	NONE, I WILL BE USING BROADBAND
Floppy Disk Drive	NONE
Memory Card Reader	INTERNAL 52 IN 1 CARD READER (READS XD, MS, CF, SD, etc)
Case	COOLERMASTER HAF 922 MID TOWER BLACK GAMING PC CASE
Power Supply & Case Cooling	600W Quiet Quad Rail PSU + 120mm Case Fan (£59)
Processor Cooling	INTEL CORE i7 STANDARD CPU COOLER
Firewire & Video Editing	1 x IEEE 1394a FIREWIRE PORT ONBOARD
TV Card	NONE
Monitor	22 Inch Wide TFT Silver/Black 1680 x1050 5MS D-Sub, DVI (£125)
2nd Monitor	NONE
GeForce 3D Vision	NONE
DVI Cable	NONE
Keyboard & Mouse	Logitech® Deluxe 660 Cordless Keyboard & Optical Mouse (£18)
Mouse	NONE
Speakers	LOGITECH S220 2.1 SILVER/BLACK SPEAKER SYSTEM (£16)
Webcam	Logitech® QuickCam® Sphere AF The ultimate in video-calling freedom (£78)
Headsets (VOIP)	NONE
Surge Protection	Belkin 8 Socket 2M Surge Protector with £25,000 Protection! (£14)
Printer	HP PHOTOSMART PLUS ALL-IN-ONE PRINTER - B209A (£129)
Anti-Virus	NORTON 360 SUITE - 1 Year Licence for upto 3 PCs (£49)
Office Software	Microsoft® Office® 2007 Professional (1 Licence) (£203) ***SPECIAL***
External Hard Drive	Seagate FreeAgent Desk 1TB 7,200rpm High-Speed USB External Hard Drive (£89)
Home Installation	NONE
Warranty	1 Year Return-to-Base incl 1st Month Free Collect & Return
Delivery	STANDARD INSURED DELIVERY TO UK MAINLAND (MON-FRI)
Build Time	Standard Build - Approximately 12 to 15 working days
Quantity	1

Other Features Included As Standard...	
Software	CD/DVD authoring software and Power DVD software is included with all DVD Writers.
Ports	Each computer comes with 1 x PS/2 keyboard port and either 1 x PS/2 mouse port or 2 extra USB ports.
Fans	Where necessary your computer will come with extra case fans fitted.
Memory	Our memory comes with a 100% tested lifetime warranty!
Bezels	All our drives come in either silver, black or beige and are all of a high quality & matched brand.
Support	We offer lifetime **hardware** technical support during normal office hours.
Cables & Manuals	A power cable, all drivers, manuals, and a heatsink & fan are included with every order.
Service	Our computers come fully assembled & thoroughly tested. We are so confident in the quality of our computers that we offer a free collection and re-delivery service* should you ever have a problem with your computer.
Installation	If you order an operating system it will come fully installed with the CD and licence key.
Low Total Cost of Ownership	Taking into consideration our low cost telephone support, free collection warranty service* and our strive to use energy efficient components where possible, the total cost of owning a pcspecialist computer is reduced as much as possible.
And Finally	If you are lucky enough to have seen a cheaper quote, click here.

Research Quotation Price

Price for this PC System:
Price for this PC System:
£2251.30 ex VAT.
£2560 inc VAT and Delivery.

Task B – Configuration

As Wee Promote is a UK based company, the computer needs to be configured for a UK setup. This means:

The time and date settings must be set to GMT 00:00 (Lisbon, Edinburgh, London), as this is the UK local time zone

Language and keyboard settings should be set to English – United Kingdom, rather than English – United States. However, I will also have French and Spanish set up, so that the French and Spanish settings are recognised whilst translating.

The computer should have different usernames for different members of staff, and a password, so only that member of staff can access their log on.

The computer should have a regular scan to make sure no viruses are on the computer and regular backups of the data to an external hard disk drive so that the documents are safe.

The desktop should have shortcuts to only the most commonly used programs, such as Microsoft Word, or the Adobe CS4 Creative Suite, so that the desktop doesn't look cluttered and unprofessional.

The GUI settings will be set so that the resolution of the monitor matches the resolution I have set, so that the icons are not too small or too big. In this case 1680x1050

The mouse settings are going to be left default, as the default speed and sensitivity is ideal for general everyday use.

The audio settings are going to be set to an optimum level, not maximum volume (distorts the sound), but not too quiet either (so you cannot hear it), but at about 66%, which is usually sufficient.

Each application is going to be set so that a default font is used (something simple like Times New Roman), and default size (e.g. in Word, as it is used for word processing, size 12 would be sufficient). The burning software is going to be set so that it "Closes" the disk (cannot copy onto it again, a permanent burn) so that the content is saved.

The folder structure of Wee Promotes system should be something like:

My Computer > Wee Promote (Their version of "My Documents")> Staff
> Commissioned Companies > (Company Name Here) > Work

Toolbars:

Wee Promote						▽ X
Icon	Add Address	Icon	Add Date	Icon	Add Signature	

This toolbar is for use in Microsoft Word. It allows for easier ~~access to~~ input of address, date and a signature. Each of these Icons will run macro's recorded for the set tasks, making it easier to insert things (e.g. address) without having to type it out every time.

WeePromote				▽ X
Icon	Insert Date	Icon	Insert row	

This toolbar is for use in Microsoft Excel. It allows for easier input of the date and a new row in a table.

Menu's:

Wee Promote	
Icon	Open Invoice
Icon	Open Letter
Icon	Open Memo
Icon	View Toolbar
Icon	Insert Date

This Menu bar is for use in Microsoft Word. It allows the user to open each of the main document templates at a click of a button. It also allows ~~the~~ to view the WeePromote Toolbar (above). So the features are easier to acces.

Wee Promote	
Icon	Insert Row
Icon	Insert Date
Icon	~~In~~ View Toolbar

This menu bar is for use in Microsoft Excel. It allows the user to insert a new row, date and to view the WP Toolbar (above), making it easier and more productive for the user.

65.

Macro's:

Insert New Row (Excel - with Formulae).
    Record - Right Click Row number → Insert New Row. → Drag
    Formulae the by drag dragging and pressing CTRL + D. → Stop.

    This allows the user to insert a new row with formulae very
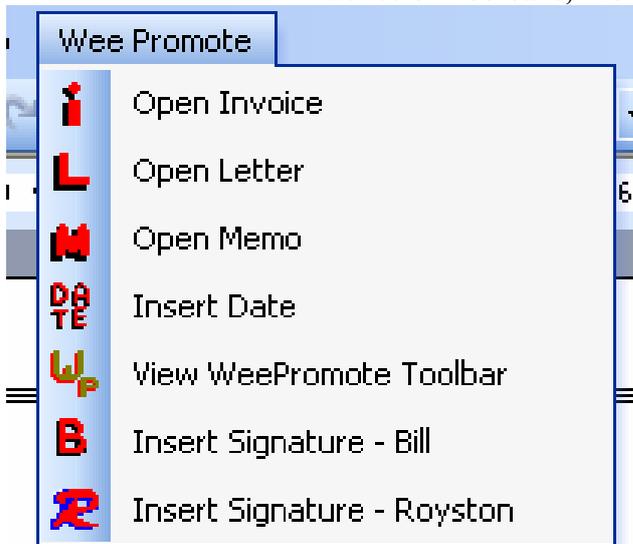   easily, saving time copying the formulae over and over.

Add Address (Word).
    Record - Align Right. Type address, enter (new row),
    continue address. → Miss a line, align left → Stop e.

    This allows the user to insert the company address without having
    to retype it. It ends with the cursor back left, so the user can
    continue typing.

Templates

| Letter		Logo	Memo.		Logo	Invoice		Logo
								Address
		Address.	Recipient details.					
Data Macro				Divide.		Invoice		
Empty macro fields for name and greeting line				↓		TO		
				Content ← Plain				
				Macro		Table with invoice details. (with formulae)		
↓ few lines. Space. for content								
			Insert sig (empty macro).					
Sign off line								
Empty macro		Border.	Border.			This invoice template has the table and formulae inserted		
		↓	↓					
This is a basic template for a letter, with empty macro fields for letter details.			This is a memo template, with space for recipient details. The border and logo are present from the letter.			making it easier to work out the invoice total.		

Evidence of Toolbars, Menu's and Macros'

This is my Menu found in Microsoft Word. I have the option to Open Invoice, Open Letter, and Open Memo.

I also have the option of inserting date, as well as the signatures. You can also view the WeePromote Toolbar so that it makes it easier to access the content (the add address field).

This is the WeePromote Toolbar. It only has add address, and insert signature, but it is still useful as it makes it easier to add the company address without having to continuously type it and the signatures are easy to insert too.
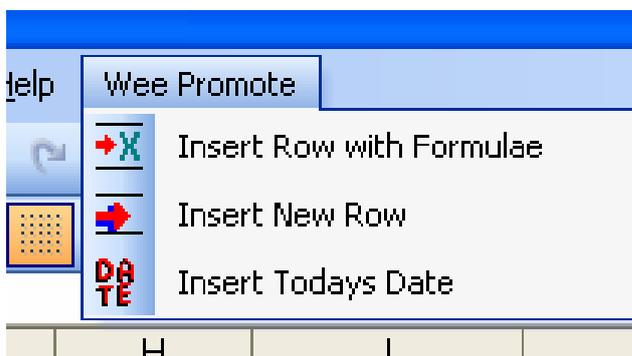
This is the WeePromote Menu bar in Microsoft Excel. It has insert new row (general) and with formulae, so that it makes it easier to copy the formulae for working out prices. There also is an insert date macro on the menu bar too.
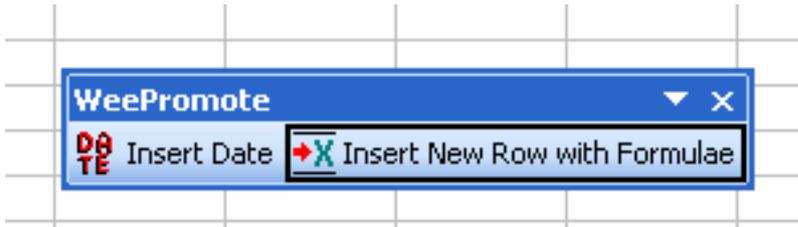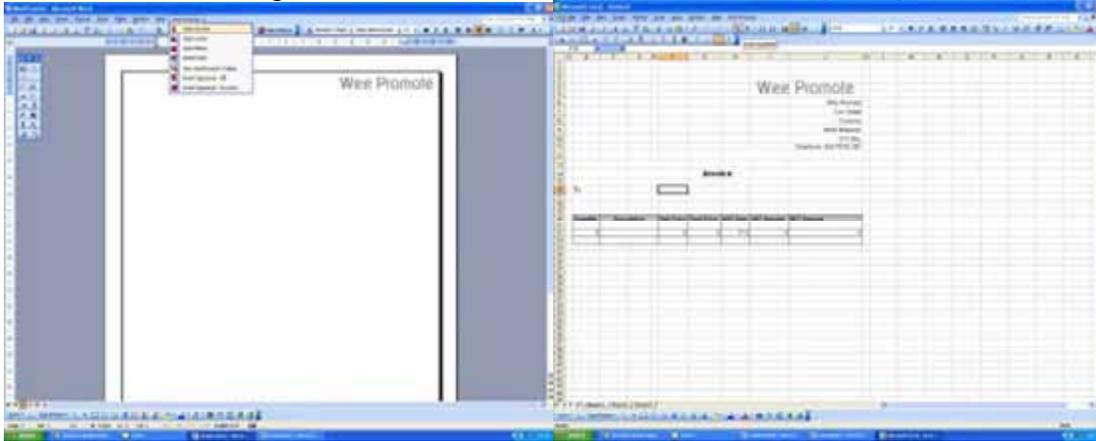
This is the WeePromote Toolbar in Microsoft Excel. It has the insert date and new row with formulae fields just like the toolbar, but this is more convenient as it can is quicker to access.

Test Plan

Open Invoice:
I will click on the "Open Invoice" icon on my Menu bar, and hopefully the invoice will open.
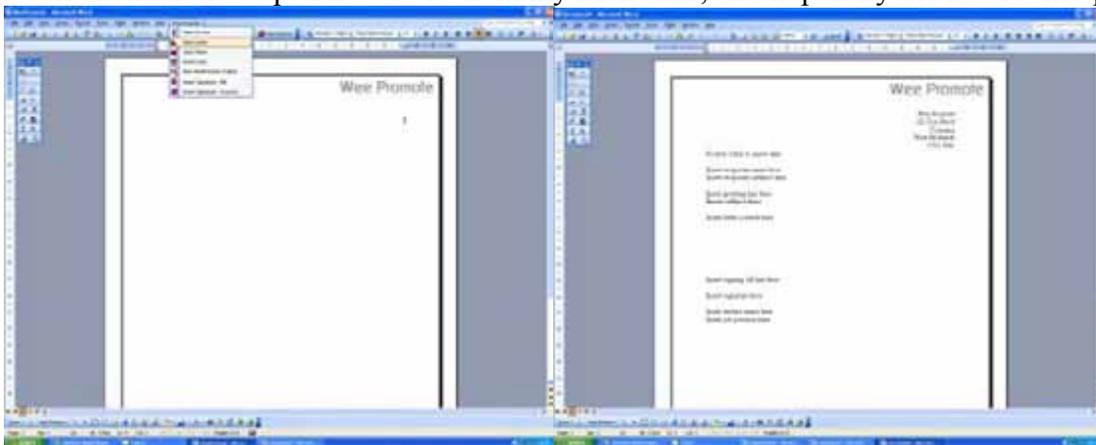
 After
clicking on the macro, proofing it works. (Images 1 and 2)

Open Letter:
I will click on the "Open Letter" icon on my Menu bar, and hopefully the letter will open.

After clicking on the macro, the letter has appeared, proofing my macro works.
(Images 3 and 4)

Open Memo:
I will click on the "Open Memo" icon on my Menu bar, and hopefully my memo will open.

After clicking on the macro my Memo appears, proofing my macro works. (Images 5 and 6)

Insert Date:
I will click on "Insert Date" and hopefully the date will appear
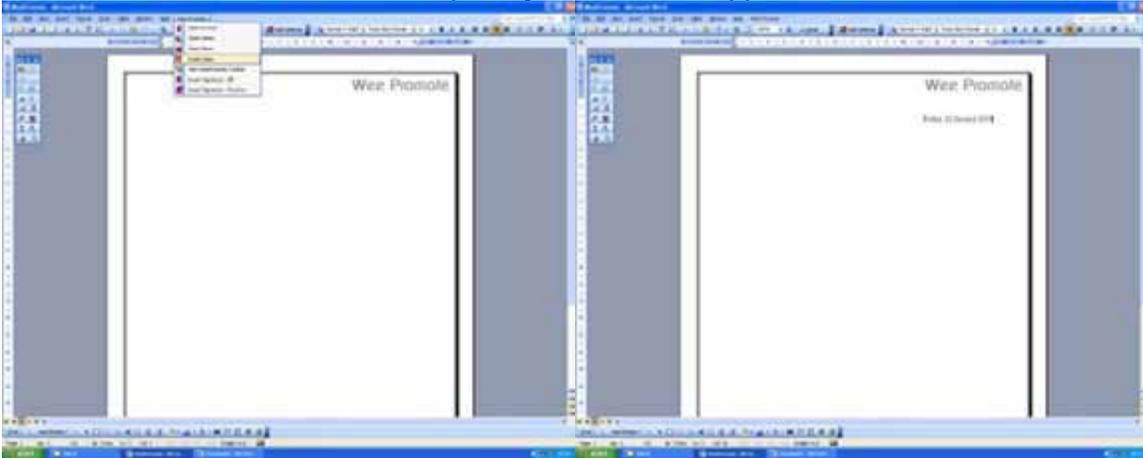
After the macro has been clicked, the date appears, proofing my macro works. (Images 7 and 8)

View WeePromote Toolbar
Clicking on this macro should make my WeePromote Toolbar appear.
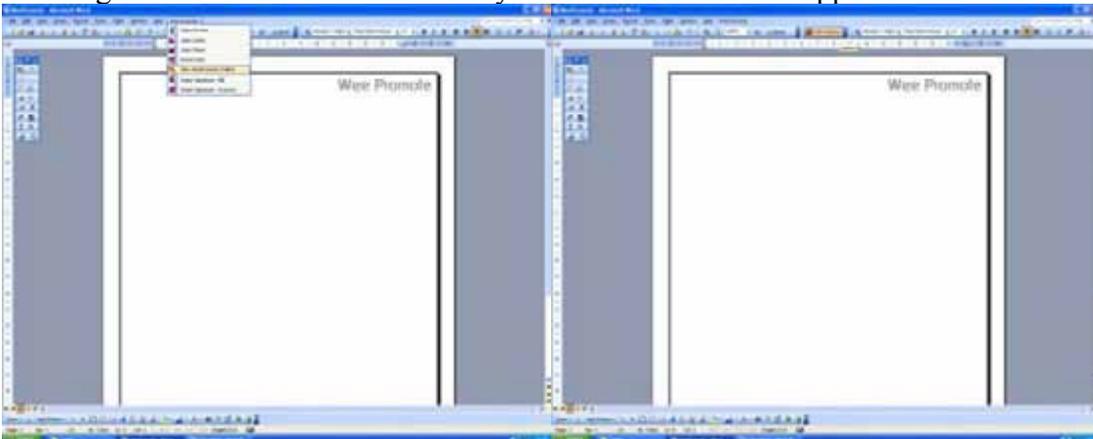
This is my WeePromote Toolbar after clicking on the macro, meaning that it works. (Images 9 and 10)

Insert Signature:

Once I have clicked on the icon, the signature for the relevant person (in this case, Bill) will appear.
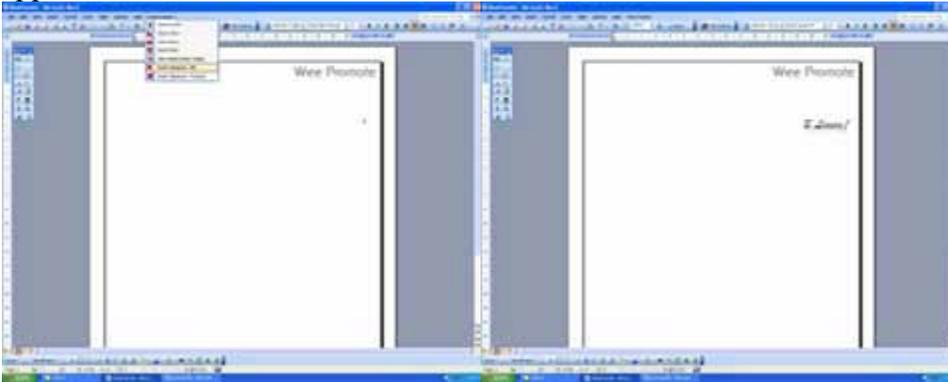
The signature has appeared, meaning the macro works. (Images 11 and 12)
Once I have clicked on the 2nd icon for Royston, the signature should appear
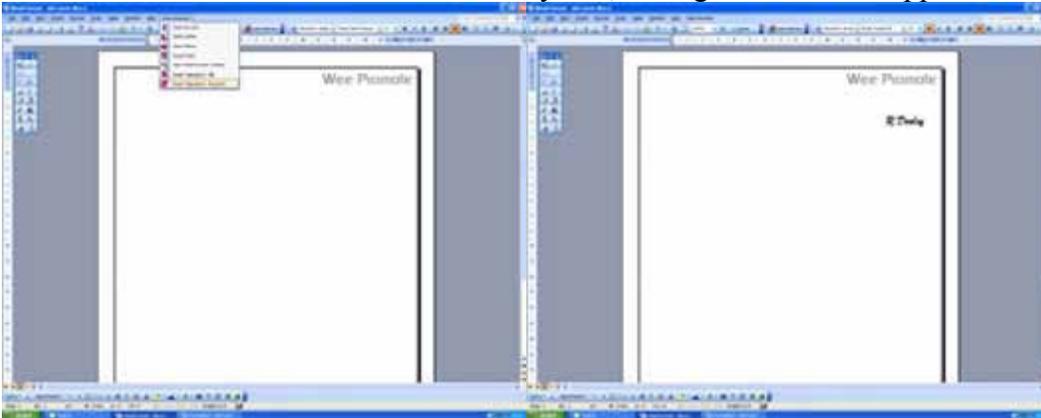
This shows that the signature for Royston has appeared, proofing the macro works. (Images 13 and 14)

Add Address
Once I click on the icon on my toolbar, the address for WeePromote should appear.
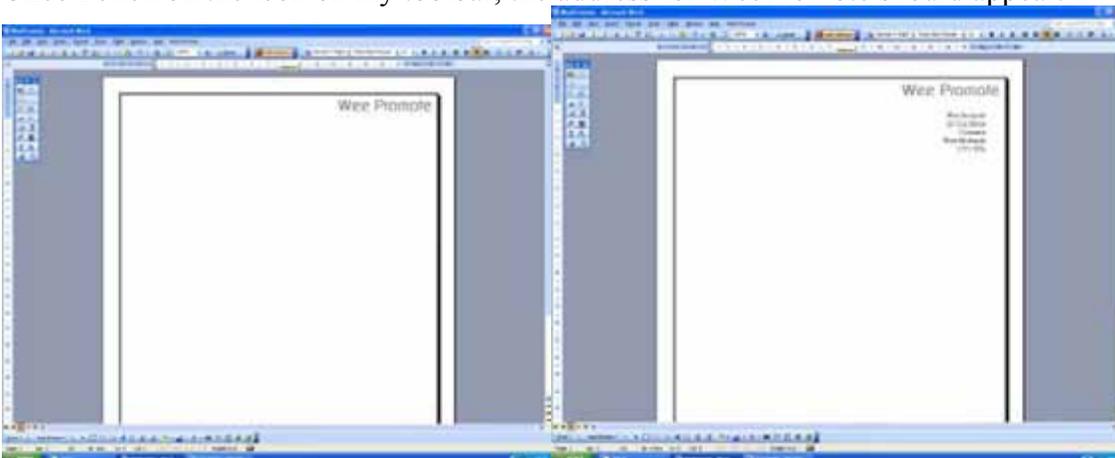
Wee Promotes address has appeared, meaning the macro works.
 (Images 15 and 16)

Insert Date field

This macro allows the user to insert the date just by double clicking.
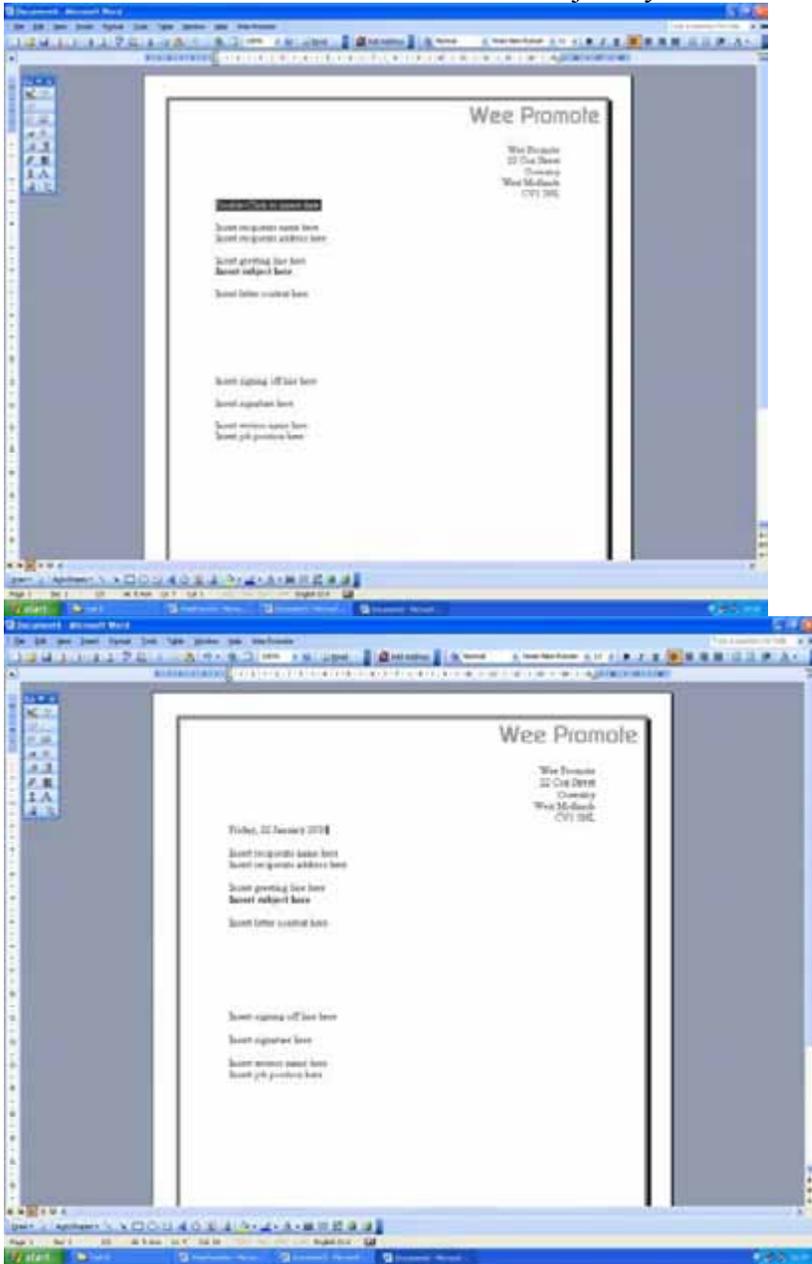
This shows that date has appeared. (Images 17 and 18)

Blank Macro Fields

These areas are part of the page reserved for text. In this case, the highlighted field is for a greeting line
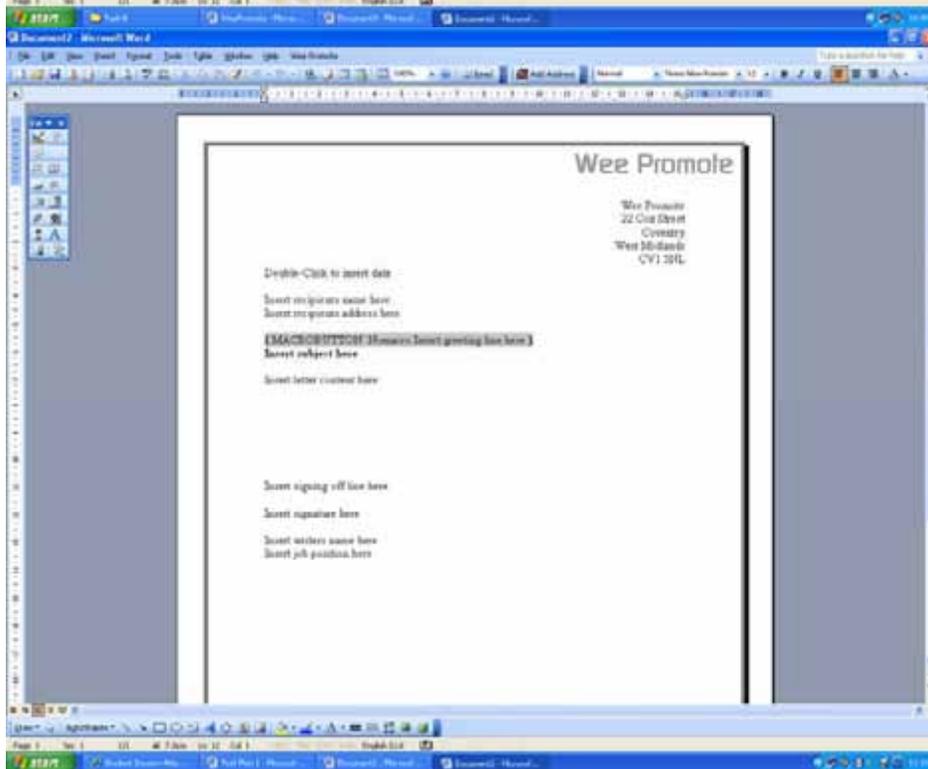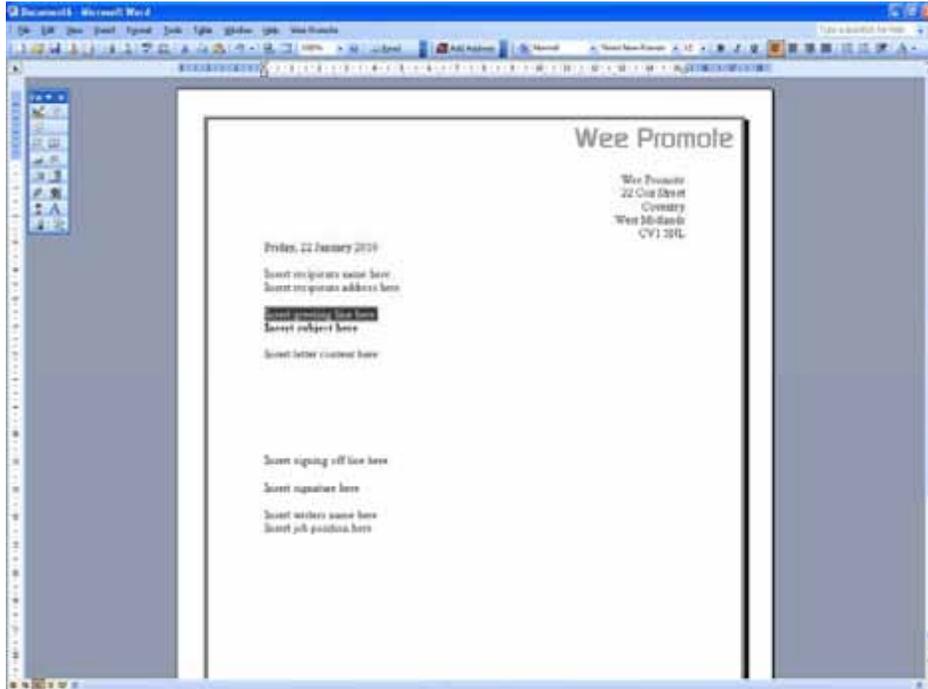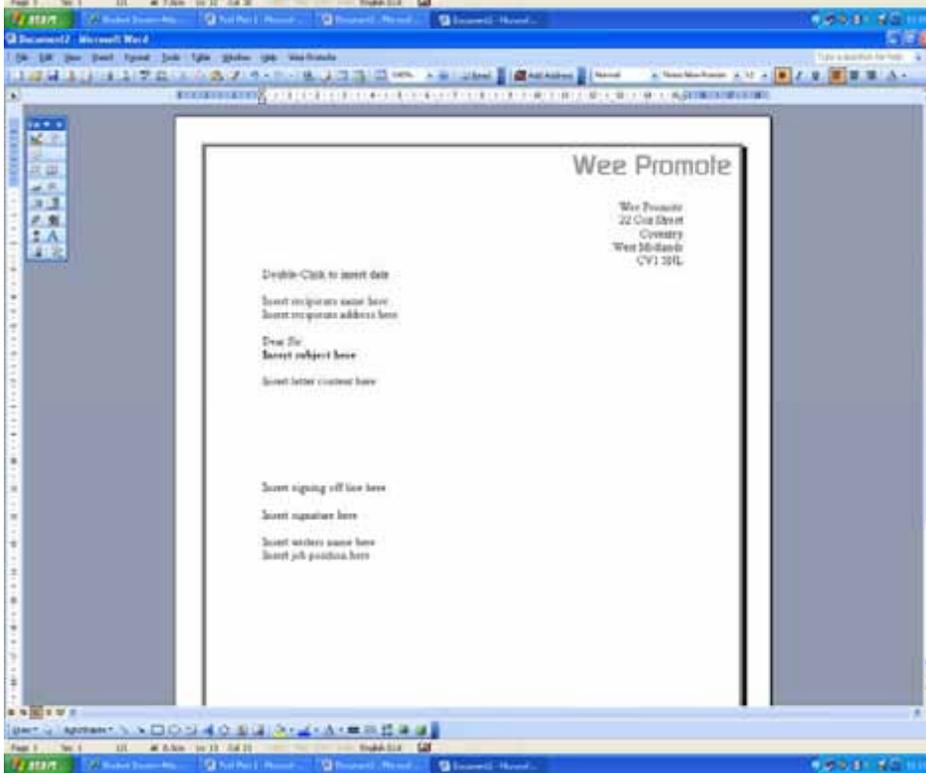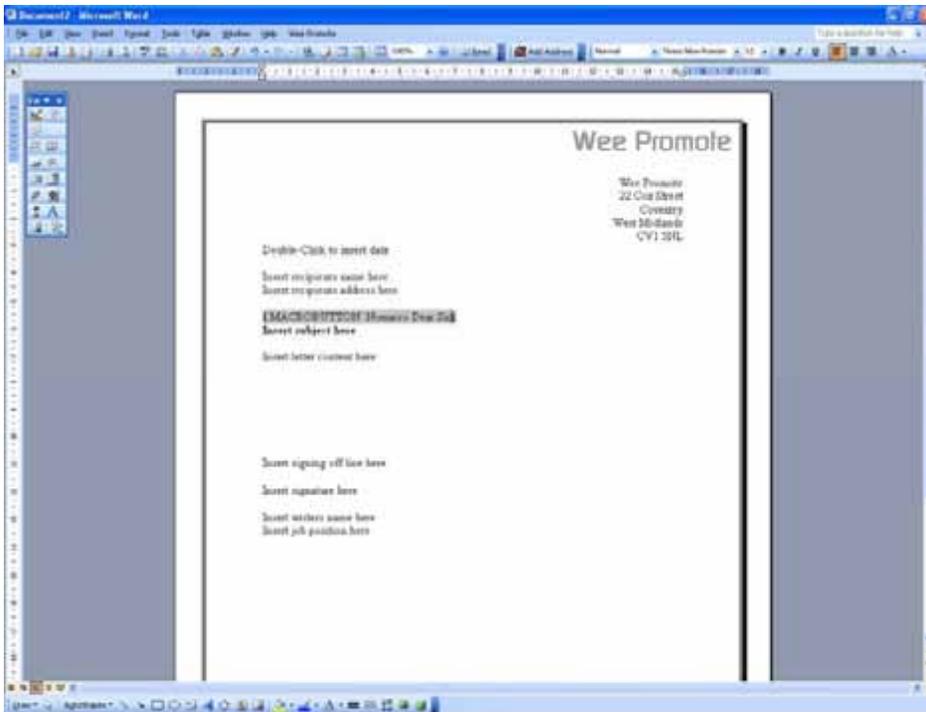
(Images 19, 20, 21 and 22)

Insert new row with formulae
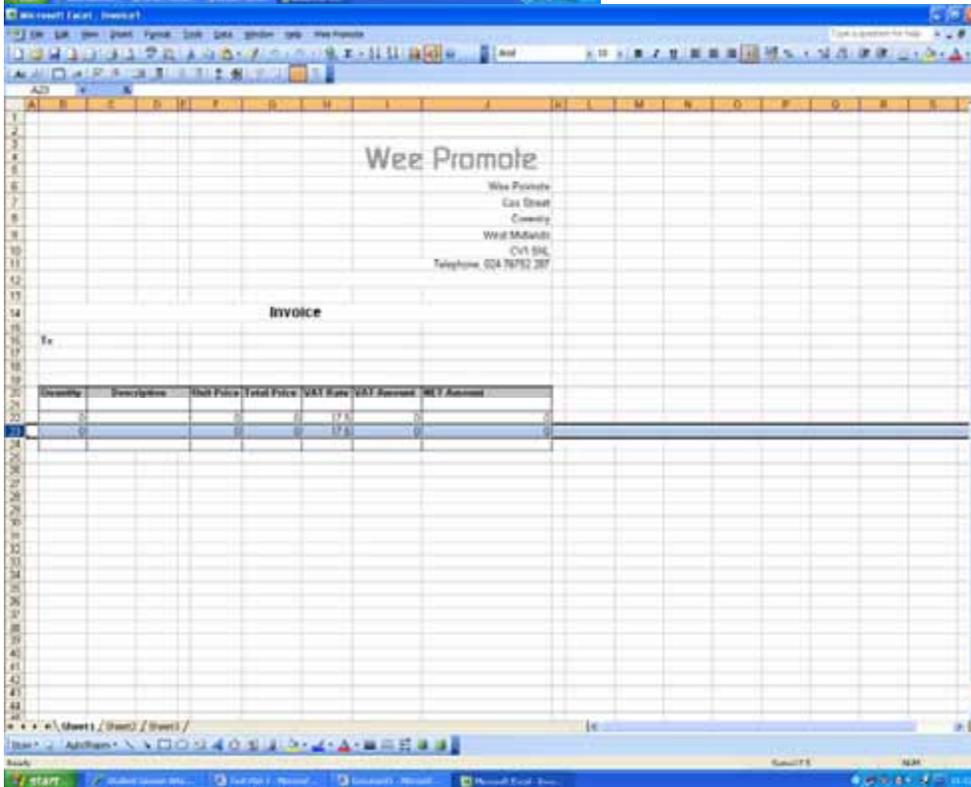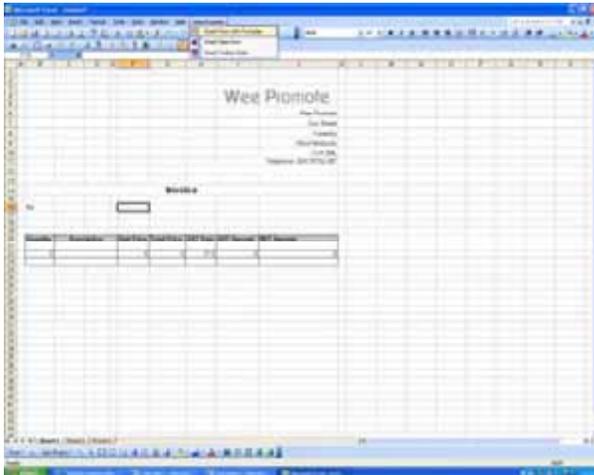
This shows that the row has been copied with the formulae copied, proofing the macro works. (Images 23 and 24)

Insert new row (generic)
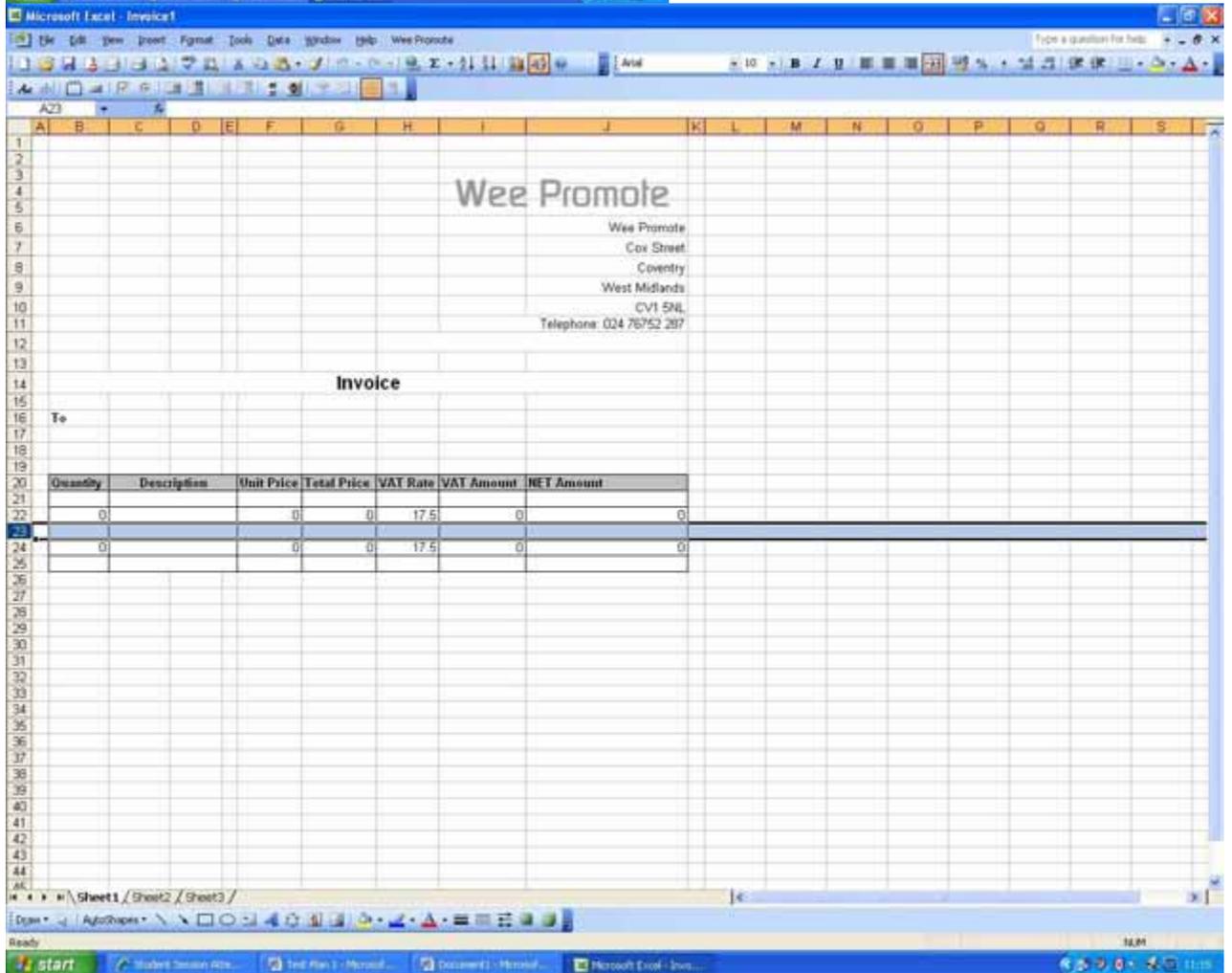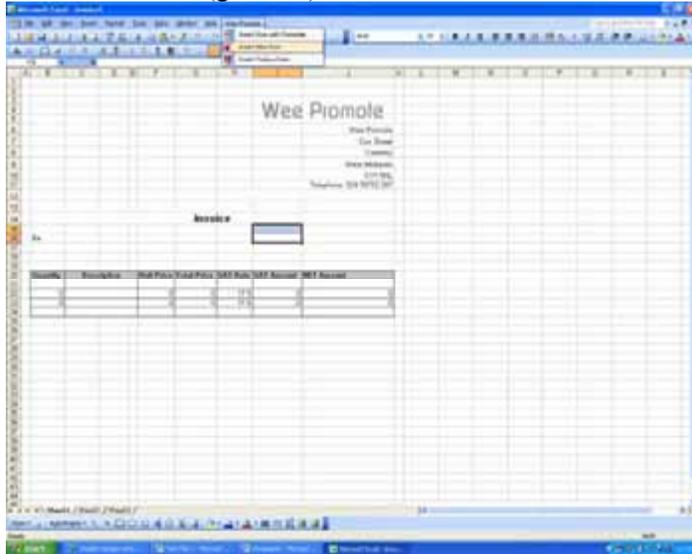
A new row has been inserted with the correct merging, showing that the macro works. (Images 25 and 26)

Insert Date:
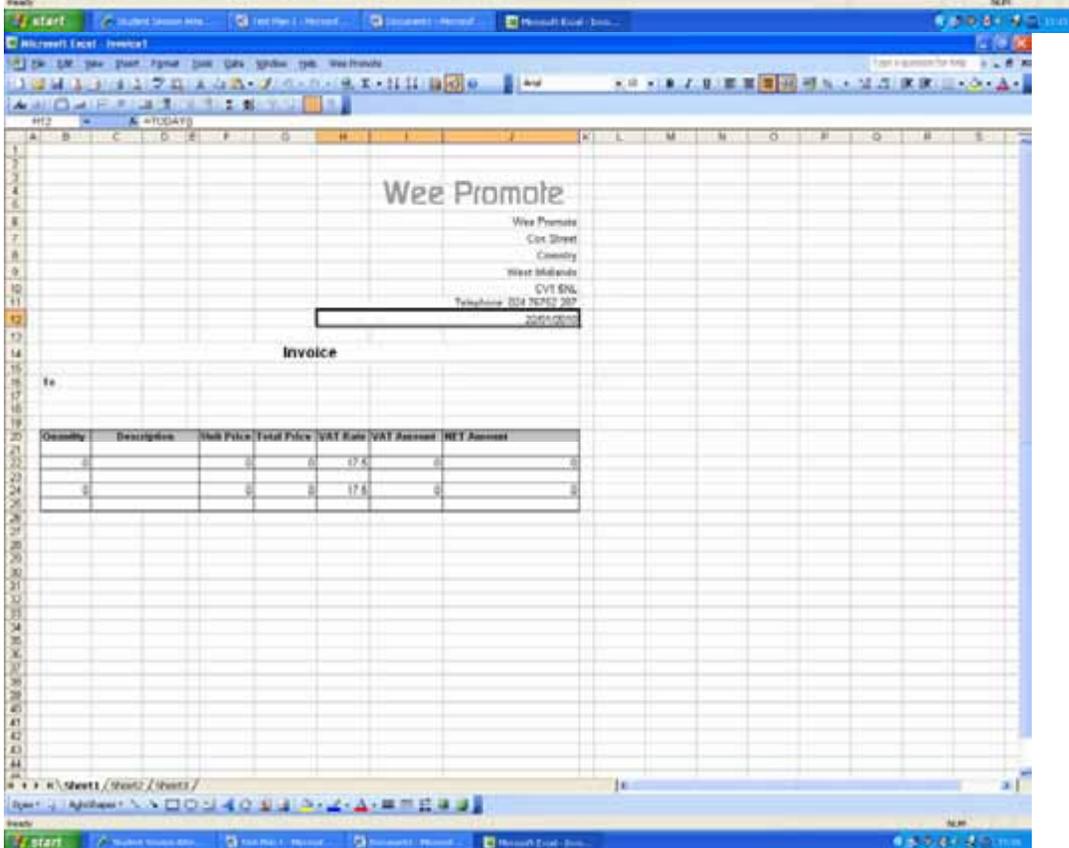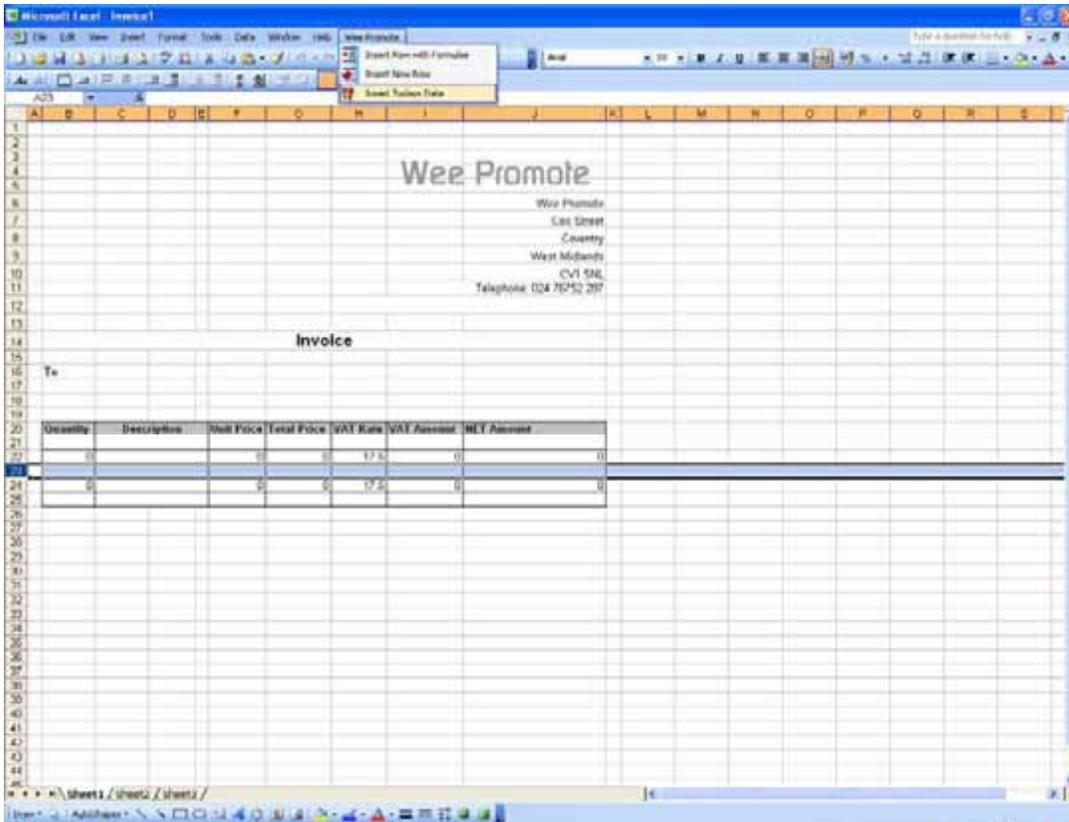
This shows that date has been inserted, proofing the macro works. (Images 27 and 28)

Macro Test	Test Description	Expected Outcome	Pass (Image) / Fail
Open Invoice	I will click on the "Open Invoice" icon on my Menu bar, and hopefully the invoice will open	Invoice will open	Pass (Images 1 and 2)
Open Letter	I will click on the "Open Letter" icon on my Menu bar, and hopefully the letter will open	Letter will open	Pass (Images 3 and 4)
Open Memo	I will click on the "Open Memo" icon on my Menu bar, and hopefully my memo will open.	Memo will open	Pass (Images 5 and 6)
Insert Date	I will click on "Insert Date" on my menu and hopefully the date will appear.	Date will appear	Pass (Images 7 and 8)
View WeePromote Toolbar	Clicking on the WeePromote icon in the menu should make the WP Toolbar to appear	Toolbar will appear	Pass (Images 9 and 10)

Insert Signature	Clicking on the signature icons in the menu, the macro should run.	The signatures should appear	Pass (Images 11 to 14)
Add Address	Clicking on the house icon on the toolbar, the macro will run making the address appear	The address should appear	Pass (Images 15 and 16)
Insert Date Field	Double clicking on the macro should make the date appear in its place	The date should appear	Pass (Images 17 and 18)
Blank Macro fields	These are spaces that are reserved as placeholders.	Blank space with text saying "Insert XXXXX here" will turn grey, and allow me to type in the box	Pass (Images 19 to 22)
Insert New Row with Formulae	This macro will create a new row in the table with the formulae needed (VAT, subtotal, etc.)	A row shall appear, with a few fields filled in with formulae	Pass (Images 23 and 24)

Insert a Generic New Row	This macro inserts a new row into the table which is blank. This is ideal if it is to be used to space things out, or to type in a new calculation	A black row shall appear	Pass (Images 25 and 26)
Insert Date (Excel)	This macro will make the date appear below the contact details in order to show the date the invoice was created.	The date shall appear	Pass (Images 27 and 28)

Wee Promote

Invoice

To

Quantity	Description	Unit Price	Total Price	VAT Rate	VAT Amount	NET Amount
0		0	0	17.5	0	0

Wee Promote

Wee Promote
22 Cox Street
Coventry
West Midlands
CV1 5NL

Double-Click to insert date

Insert recipients name here
Insert recipients address here

Insert greeting line here
Insert subject here

Insert letter content here

Insert signing off line here

Insert signature here

Insert writers name here
Insert job position here

✆ 024 76752 287   ✎ weepromote@businesslive.co.uk

Memo

Recipient: Insert recipients name here
From: Insert senders name here
Date: Double-click for date
Reference: Insert reference number here

Subject: Insert subject here

Insert content of memo here

Insert initials here

```
ThisDocument - 1

Private Declare Function ShellExecute Lib "shell32.dll" Alias "ShellExecuteA" (ByVal hWnd As Long, ByVal lpOperation As String, ByVal l
pFile As String, ByVal lpParameters As String, ByVal lpDirectory As String, ByVal nShowCmd As Long) As Long

Sub URLOpenLetter()

    'Location and  name document
    URL = "E:\School Work\16+\ICT\G043 -            \Assignment\Task D\Letter.dot"
    Call ShellExecute(0&, vbNullString, URL, vbNullString, vbNullString, vbNormalFocus)

End Sub

Sub URLOpenMemo()

    'Location and  name document
    URL = "E:\School Work\16+\ICT\G043 -            \Assignment\Task D\Memo.dot"
    Call ShellExecute(0&, vbNullString, URL, vbNullString, vbNullString, vbNormalFocus)

End Sub

Sub URLOpenInvoice()

    'Location and  name document
    URL = "E:\School Work\16+\ICT\G043 -            \Assignment\Task D\Invoice.xlt"
    Call ShellExecute(0&, vbNullString, URL, vbNullString, vbNullString, vbNormalFocus)

End Sub
```

This code opens the Letter.

Opens memo.

Opens invoice

82 A

```vba
Sub InsertNewRow()          ← Inserts new row.

' InsertNewRow Macro
' Macro recorded 22/01/2010 by
'

'
    Rows("23:23").Select
    Selection.Insert Shift:=xlDown
    Range("C23:E23").Select
    With Selection
        .HorizontalAlignment = xlCenter
        .VerticalAlignment = xlBottom
        .WrapText = False
        .Orientation = 0
        .AddIndent = False
        .IndentLevel = 0
        .ShrinkToFit = False
        .ReadingOrder = xlContext
        .MergeCells = False
    End With
    Selection.Merge
End Sub
Sub InsertFormulae()
'
'   ..sertFormulae Macro    ← Inserts macro with formulae.
' Macro recorded 22/01/2010 by s
'

'
    Range("G22:G23").Select
    Selection.FillDown
    Range("H22:H23").Select
    Selection.FillDown
    Range("I22:I23").Select
    Selection.FillDown
    Range("J22:J23").Select
    Selection.FillDown
End Sub
Sub InsertRowFormulae()
'
' InsertRowFormulae Macro
' Macro recorded 22/01/2010 by
'

'
    Range("B23").Select
    Application.CutCopyMode = False
    Selection.ClearContents
    Rows("23:23").Select
    Selection.Insert Shift:=xlDown
    Range("C23:E23").Select
    With Selection
        .HorizontalAlignment = xlCenter
        .VerticalAlignment = xlBottom
        .WrapText = False
        .Orientation = 0
        .AddIndent = False
        .IndentLevel = 0
        .ShrinkToFit = False
        .ReadingOrder = xlContext
        .MergeCells = False
    End With
    Selection.Merge
    Rows("22:22").Select
    Selection.Copy
    Rows("23:23").Select
    Selection.PasteSpecial Paste:=xlPasteFormulas, Operation:=xlNone, _
        SkipBlanks:=False, Transpose:=False
End Sub
```

82 B.

```
Sub InsertTodaysDate()          ← Inserts todays date
'
' InsertTodaysDate Macro
' Macro recorded 15/01/2010 by
'
'

    Range("I12").Select
    ActiveCell.FormulaR1C1 = "=TODAY()"
    Range("A13:I13").Select
End Sub
```

82 <

```vba
Sub InsertNewDate()

' InsertNewDate Macro
' Macro recorded 1/8/2010 by
'
    Selection.InsertDateTime DateTimeFormat:="dddd, dd MMMM yyyy", _
        InsertAsField:=False, DateLanguage:=wdEnglishUK, CalendarType:= _
        wdCalendarWestern, InsertAsFullWidth:=False
End Sub
Sub RoystonSignature()            ← Inserts signature for Royston

' RoystonSignature Macro
' Macro recorded 1/8/2010 by
'
    Selection.Font.Name = "Brush Script MT"
    Selection.Font.Size = 22
    Selection.Font.Bold = wdToggle
    Selection.TypeText Text:="R.Dooley"
End Sub
Sub BillSignature()       ← Inserts signature for Bill

' BillSignature Macro
' Macro recorded 1/8/2010 by
'
    Selection.Font.Size = 24
    Selection.Font.Name = "Brush Script MT"
    Selection.TypeText Text:="B.Lennon"
End Sub
Sub ViewToolbar()      ← Makes toolbar appear

' ViewToolbar Macro
' Macro recorded 1/15/2010 by
'
    CommandBars("WeePromote").Visible = True
End Sub
Sub InsertLogo()

' InsertLogo Macro    ← Inserts the logo
' Macro recorded 1/15/2010 by
'
    Selection.InlineShapes.AddPicture FileName:= _
        "E:\School Work\16+\ICT\G043 -            \Assignment\Wee Promote Logo.bmp" _
        , LinkToFile:=False, SaveWithDocument:=True
    CommandBars("Picture").Visible = True
    CommandBars("Picture").Visible = False
End Sub
Sub InsertAddress()     ← Inserts company address

' InsertAddress Macro
' Macro recorded 1/15/2010 by
'
    Selection.ParagraphFormat.Alignment = wdAlignParagraphRight
    Selection.Font.Size = 12
    Selection.TypeText Text:="Wee Promote"
    Selection.TypeParagraph
    Selection.TypeText Text:="22 Cox Street"
    Selection.TypeParagraph
    Selection.TypeText Text:="Coventry"
    Selection.TypeParagraph
    Selection.TypeText Text:="West Midlands"
    Selection.TypeParagraph
    Selection.TypeText Text:="CV1 5NL"
End Sub
```

82 D

Task E – Ergonomics and Security Management

Ergonomics is the science of designing equipment and workspace to suit both health and productivity of the user. This means that everything is to be designed so that it is safe to use and doesn't affect the users' productivity whilst doing a job. Everything can be designed for ergonomics, from hardware (keyboard and mice) and software (layout, etc.), to the actual workstation layout (seat a good distance from computer monitor) and even the furniture (chair designed to fit natural human contours). However, it is not just about keeping the users and staff safe. Security in general needs to be maintained, for both the computer systems and the staff.

Ergonomics and Hardware:
Everything a person physically uses is classed as hardware, be it a keyboard or even a stereo system. In computing, many components are classed as hardware. However, the three main components of hardware that should be considered so that it is good for the health of the user and the productivity of the user are the keyboard, mouse and monitor.

Keyboards are designed ergonomically so that it reduces the strain on the wrist of the user. The keyboard can be angled using the legs on the bottom of the keyboard, and the keys have a concave so that the finger doesn't slip and press random buttons unintentionally. However, these don't reduce wrist strain that much, which is one of the main problems with constant and frequent use of keyboards. Ergonomic keyboards are specially designed keyboards to combat this problem. These keyboards look like they are curvy keyboards which have been snapped in half, but actually this design is very clever. The keys are angled away from the "crack" to suit the natural contours of the human hand, with half of the letter keys on one side, and the other half of the keys on the other side (see image 1). This means that the users hand can quickly navigate the board, as normal, without the risk (or at least a reduced risk) of wrist problems. This fits in with the meaning of ergonomics; Suit both the health (in this case, wrist strain) and productivity (layout identical to a normal keyboard, so productivity doesn't change) of the user.

Computer mice are another hardware that can be ergonomically designed. Now-a-days, computer mice are optical, meaning they user light to navigate the cursor on screen rather than a ball, which means they are much more responsive than normal mice and more accurate in replicating the users' movements. As mice are often used in computing, it is important to make these ergonomic. Normal mice require the user to bend their arm in order to grip, and then the hand doesn't make a fully natural curve, meaning the strain is in the arm and wrist. Ergonomic mice are designed so that the arm can be in a natural position whilst having the mouse buttons on the right hand side of the mouse so the hand is positioned more naturally (see image 2). Again, this is ergonomic as it is good for the users health and maintains productivity.

Monitors are the other main hardware that can be ergonomically designed. Many monitors are now classed as ergonomic as they can be altered to suit the user. Monitors need to be ergonomic as the user will be using one all the time whilst using a computer. Monitors are ergonomic as the height can be altered, with many having adjustable "necks", and the angle can be changed, as well as the direction of the screen, thanks to the swivel neck (see image 3). This means the user can have a perfect viewing angle, reducing neck strain (if the monitor is too high, then the person is straining

the neck to see it, but if it is too low then the user is bending their neck to see the screen fully). In addition, this also complies with the EU Health and Safety Display Screen Equipment Act, which mentions how prolonged use of computer screens can affect eyes and necks. The monitor shown is ergonomic, as the users health is taken in to consideration with adjustable viewing heights and angles, as well as the productivity as the worker can see more of the screen, reducing time to keep moving to look at another section of a screen (even though this is a matter of seconds, this all can add up).

Image 1

The above image shows an ergonomic keyboard. It shows that letter keys are split between the two halves of the keyboard, and the keys are angled away from the centre. This fits the natural curve of the human hand, and maximises typing capability whilst minimising wrist strain
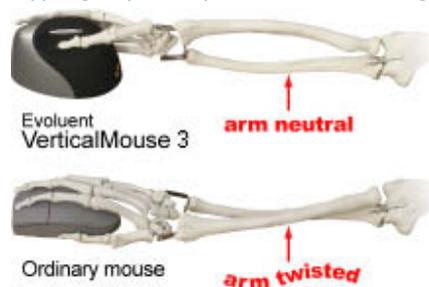
Image 2

The above image shows how the human arm is positioned whilst using an ergonomic mouse (top) and an ordinary mouse (bottom). As the image shows, the arm is neutral whilst using the ergonomic mouse and the whole hand fits comfortably around the mouse, reducing arm strain. The ordinary mouse shows that the arm is twisted in order to position the hand comfortably, meaning that arm strain can be a problem from frequent use.

Image 3

The above image shows an ergonomic monitor. As it shows, the neck is fully adjustable, with height, distance from user and angle all being able to be altered, meaning that it can be at the right height and distance for the user, reducing eye and neck strain.

Ergonomics and Furniture:
If the furniture is not ergonomically made and designed for the user, then all of the hardware ergonomics mentioned above are useless. The furniture includes the desks computers are on and the chairs staff use whilst working.

Desks can be ergonomically designed, so that the height of the keyboard holder and the distance from the user can be altered, meaning the user isn't stretching their arms out to type, but having their arms in a natural position. This means that productivity is kept at a good rate, as the keyboard is at the right height meaning a user's typing speed may increase, and their health is taken into consideration so that they don't injure their wrists or arms.

However, the main piece of furniture that is ergonomically designed is a chair. Many computer chairs have tilting backs, adjustable heights and swivel seats so that the user can have their back in a comfortable position, their feet flat on the ground, and are able to turn around quickly without hurting their neck or back. However, a fully ergonomic chair has a crevice for the users bottom, so that it sinks down naturally, and the back rest is curved to match the natural contours of the human spine (see image 4).
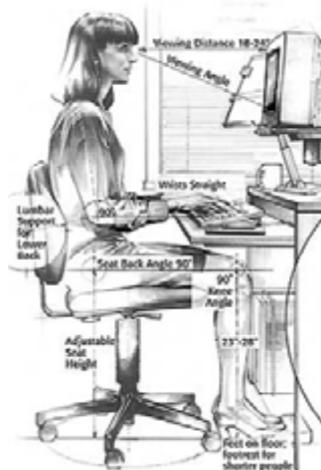
Image 4

The above image shows the optimum ergonomic workstation. The chair dips backwards at the back for the bottom, the backrest is curved to fit the spine, the edge of the seat is curved to match the curve of the knee when it is at 90*, with the feet flat on the floor (possibly with a footrest). The keyboard is at the same height as the arm and wrist to reduce wrist strain, and the monitor is at a good distance and angle so the whole screen can be seen without constantly moving the neck and head.

Ergonomics and the Workplace Layout:
It is not just the furniture and computers that need to be ergonomic, but the layout of the workplace. This includes the position of the furniture and computer peripherals, but also the lighting of the room. If the room isn't lit well enough, then the eyes are straining to see the screen properly, as the screen is often very bright and the eyes cannot take in the detail. Conversely, if the room is too brightly, then the eyes strain to see the screen clearly. Therefore, lighting is an important factor to be taken into account when a workplace is being designed. It is ergonomic, as it is tailoring a factor to suit the user, in this case tailoring the lighting for a worker who frequently uses a computer monitor.

Ergonomics and Software:
Software ergonomics is based on the software used, and if it meets certain requirements, such as meeting the users needs (e.g. does it allow to create a certain kind of document), ease of use and support.

If software is "ergonomic", it meets the users' needs. For example, Microsoft Word allows users to create letters, memos and other text-based materials. This meets the needs of a user, if the were to make a letter. For the software to be determined ergonomic, the software is to be tested by a group of testers to determine what the software is to be used for and if the user is able to do what they want to. If the software is to be ergonomic, it must be easy to use. If it is not easy to use, then it is not ergonomic as it means the user is wasting time (thus productivity drops) to do a simple task. Therefore, the software must be easy to use, because if it is easy to use, then productivity increases because tasks take less time to do. However, even the simplest programs need some form of support service. If the user gets stuck, or a reoccurring problem persists, then the user needs support in order to clear up the problem. Ergonomics covers this, as support is something vital needed in the case of software glitches. If the support is in laymen's terms, simple language, then that helps as it means anyone should be able to understand the solution.

Security and Management:
It's not just the staff that must be kept safe, but the computers also. Some areas of the computers, such as Control Panel, may be blocked in order to prevent people changing settings which in turn can cause the computer to be less protected than normal, for example the security settings may be reduced, meaning the systems firewall stops working properly. Staff members may also be blocked from using the "right click" feature of the mouse, as the "right click" feature can allow staff to access areas of the system which shouldn't be accessed, or do certain things which the company may not want staff to do, for security reasons or otherwise.

Control Panel should also be blocked, as this area allows the user to access many of the computers features, meaning that it can be open to an attack if a setting is changed, or if a piece of software is uninstalled, it can cause the computer to not function properly.

Task Manager is another feature which may be blocked, as this can be used to access the processes menu of the computer, and may allow staff to run applications that are not meant to be run, or to stop important applications from running properly. .EXE files can also be blocked from running, as these may have been downloaded off the internet from unreliable website and may contain a malicious virus which can hack into the computer and steal important information, such as company contracts or personnel files on staff. The software itself may be malicious, e.g. it may be software to hack or something similar. To keep Wee Promotes computers secure, from physical and virtual attacks, security is necessary. This means having firewalls and security access, as well as locks on the computers
 (e.g. computer is locked so only the person who locked it can access it by entering the password), but also security staff in the building to prevent potential criminals walking in and stealing the information stored on the computers.

 Members of staff should agree to a desktop policy when signing in, which states that they will not use the computer for activities other than work based. Staff should also sign an agreement to state that they will only use the computer for work and not knowingly attempt to steal any information on the system.

However, to ensure that things are kept up to date and protected, backups are recommended. These are copies of data onto an external space (e.g. flash drive, external hard disk drive, even a server) so if the original on the computer system is deleted or altered accidentally, then the copy of the original can be used. A backup can be set to automatically run at night, as it is a reasonably long process, so that it will be finished ready for the next day.

Confidential information should be password protected, or have rights restrictment on them, so that only high-level staff members can access the data. Usernames and passwords should be used to ensure this happens successfully.

To keep the computers secure, there should be a web restriction on what websites can be access. A service like Redstone can be used, as this blocks blacklisted websites (YouTube) or blacklisted words (anything sexual, violent, drug related, etc.), as many of these sites can have malicious viruses on them, or deter staff from work. A good security package is needed, like AVG Business Suite, which includes many security features including firewalls, anti-virus packages as well as password protection to prevent unauthorised access.

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Task F – Basic of Software Development

In this task, I am going to look at the basics of computer programming. I am going to look at the types of language and data that can be used, the types of coding, and the various inputs and outputs that are found in the coding.

All programs are written in programming software, called "Programming Languages". There are 3 different types if programming language: Low, intermediate and high level. Low level is the most complex to understand of the 3 to code with and is often just binary based and used for programming the interface for peripherals (e.g. graphics card drivers). Intermediate is used for Operating Systems as it has the capabilities of both the low and high level languages. High level programming is normally the easier software to code with, and can often use language that is almost identical to English, meaning that it can be understood from just reading the code.

Position Jan 2010	Programming Language	Ratings Jan 2010	Type
1	Java	17.482%	High
2	C	16.215%	Intermediate
3	PHP	10.071%	High
4	C++	9.709%	High
5	(Visual) Basic	7.354%	High

Source (January 2010), "Tiobe Index", http://www.tiobe.com/index.php/content/paperinfo/tpci/index.html
Accessed Friday 29th January 2010

The above table from TIOBE Software states the top five programming languages used as of January 2010. Java, which tops the table, is a piece software often used on the internet. It is frequently used for online applications, such as games, and are format independent, meaning that whatever the machine is, as long as it has the Java package installed, it will run, be it MAC OS, Windows, Linux or even mobile phones. The second most common programming language used is "C", which is used for some operating systems, such as UNIX (the system Linux is based upon). PHP, the third most commonly used programming language, is used for online databases, forms and logins.

There are a number of common instructions found across all programming languages, such as declaring variables (storage area for data). Variables can be manipulated though, so that they are the correct type or format. There is also set data types, which are numerical (for doing calculations), text (for entering characters from a keyboard, including numbers, as long as it isn't calculation based) and Boolean (which is like binary, Ones' or Zeros'). Data structures can be strings of data (a number of characters and normally length defined), an array (holds a set of variables of one type, a list), a record (3-D string, can have multiple values and multiple types of data, as well as multiple columns) and files (a saved copy of a record). IF statements are statements for set criteria, such as "IF this value is greater than 0, then this happens". Loops are iterations, so they keep on going until a certain condition is met (for example, if a password is

correct). Code can also be split up so that it is easier to handle. It can be split into Functions, Sub Routines and Procedures.

For coding, we have to consider the data that will be inputted. We have to consider the data that is being entered and its type, such as numerical, text or Boolean. We also have to consider where the data is coming from. The data can come from external files or folders and databases (for example, if the data is for a password or username). The data can also be entered from a keyboard or mouse, or other specialist hardware such as a barcode scanner. However, for the barcode scanner's data to be an input, the system has to be able to convert and use the data to something the system can understand. The user has to consider the volume of data being inputted and whether the system can cope with the volume that will be inputted.

The outputs of the code have to be considered too. For example, if a logon system is being used and the correct password and username have been used, the output of the system is going to be an on-screen message saying "correct sign-in, logging on" or something similar, and it may also include an image. Another output is also sound. For example, if a password is typed correctly, a little jingle may sound to show that the password was correct. However, as with inputs, the volume of outputs has to be considered. If multiple people are trying to log onto a specific system, can the system cope with the number of people trying to access it at once and can it cope with trying to display multiple messages.

Data needs to be stored, but the code needs to know where and how it is going to be stored. The primary storage for any data is in the variable (storage area). This comes in two different forms, local and global. Local is code specific and therefore will only be stored for that particular code. Global is for the entire program, so for example a username on Windows is used on all the Windows programs. The second storage location is in an external location. This saves the file permanently. These come in two different forms, text and formal. Text files are for, as their name suggests, text. Formal code is saved either as a spreadsheet or database. This can be accessed for things like passwords and usernames, and can store multiple records.

How the processing of data is controlled needs to be considered too. This comes in two forms, real time and batch process. Real time is necessary for things like online booking forms, so that the system doesn't over sell. Batch processing is used for things like payroll, or multiple file conversions, so that it can be done over a spread time scale of a few hours. String manipulation is needed so that data can be converted into relevant file formats

Efficiency of programming instructions is necessary too. It cuts down on the amount of code needed, which cuts down on errors made within the code. Multiple codes can be linked together so that they share a common system (e.g. a company logging on system may be same on the work computers but also on the online extranets/portal versions of the company system). Loops are a way to make code more efficient.

```
PROCEDURE StringCopy( orig:ARRAY OF CHAR;
                      VAR copy:ARRAY OF CHAR;
                      VAR success:BOOLEAN);
CONST
    NULL=0C;
VAR
    index:CARDINAL;
BEGIN
    index:=0;
    IF HIGH(copy)<HIGH(orig) THEN
        success:= FALSE
    ELSE
        WHILE (index<StringLen(orig)) DO
            copy[index]:=orig[index];
            INC(index);
        END;   (*WHILE*)
        copy[index]:=NULL;
        success:=TRUE
    END (*IF*)
END StringCopy;


PROCEDURE StringCompare(s1,s2:ARRAY OF CHAR):Result;
CONST
    NULL=0C;
VAR
    ch1,ch2:CHAR;
    index:CARDINAL;
BEGIN
    index:=0;
    LOOP
        IF index>HIGH(s1) THEN
            ch1:=NULL
        ELSE
            ch1:=s1[index]
        END;
        IF index>HIGH(s2) THEN
            ch2:=NULL
        ELSE
            ch2:=s2[index]
        END;
        IF ch1<ch2 THEN
            RETURN less
        ELSIF ch1>ch2 THEN
            RETURN greater
        ELSIF (ch1=ch2) AND (ch1=NULL) THEN
            RETURN same
        END;
        INC(index)
    END (*LOOP*)
END StringCompare;

END StringStuff.
```

Routine BeginsInputs entering multiple variables.

Variable declared for use in the function.

Nested IF statement.

Routine Starts Inputs with variables

Variable declared for use in the function.

Selection and Iteration

Data Output

Routine Ends

<center>**Task G – Evaluation of Specification**</center>

I am going to evaluate if I have met the user requirements for Wee Promote, and analyse each task Wee Promote needed to be done, and describe the good and bad points of each.

- **Wee Promote need a computer that is capable of designing and creating "high quality promotional literature".**

    Wee Promote needed a computer that had software that allowed them to create promotional literature, such as leaflets and brochures. To meet with the criteria as mentioned on Task A, I decided to spec a computer with an Intel Core i7 Extreme Edition i7-975 processor, the fastest processor available at the time of writing. This would be able to run multiple programs at the same time, ideal for creating very high quality leaflets and brochures. I also bought an ATI Radeon 1Gb HD graphics card, as it was the best within the price budget, and has more than enough memory. Also, with it being HD, it means it can support extremely high quality monitors, which I got (LG 22 inch 720p HD monitor). I said in Task A that Wee Promote needed a computer with a large amount of RAM, so I have decided to get 6gb worth of it, which supports Tri-DDR3, meaning it is ultra fast and can store (temporarily) a lot of data. As the files created will be large in file size, I have decided to get a 1 terabyte HDD, plus a 1 terabyte external HDD for backups. This is going to be plenty for Wee Promote, and offers almost unlimited storage. Wee Promote needed a good quality printer, so I got a HP Photosmart Plus All-In-One Printer, which is reasonably high quality. So Wee Promote could create promotional documents that looked professional, I have decided to get Microsoft Office 2007, as this is the most up-to-date version of Microsoft Office available, and has many different file interfaces, such as text based as well as graphical based and even databases'.
    The good points of the hardware and software I have chosen for this task is that they are all top-of-the-range and offer more than what is required, so if the business expands they have the computer that can cope. Also, it is unlikely the computer is going to be outdated as quickly as other machines, as it has a HD monitor, a very large HDD, and Microsoft Office 2007 with Windows 7, therefore it is all the newest of each program meaning the features on them are relevant.
    The bad points for this particular task was that other software may offer just a good package or even better than MO 2007, but I have stuck with Office as it is something that is very user friendly and most machines use, so there is the cross-compatibility between the newer machines and older ones.

- **Wee Promote need a computer that is capable of designing and creating "promotional websites"**

    Wee Promote needed a computer that had software that was capable of designing and creating professional looking websites. For this task, I

decided to go for Adobe Creative Suite 4 Design Premium. This has web-authoring software bundled with it, Adobe Dreamweaver CS4, which is more than capable of creating professional websites. I have also made sure, as above, that there is plenty of RAM and HDD space so that the files can be saved in their entirety without the need of any compression. The good point is that Design Premium has many different software in the one package, so even though it costs a lot, if Wee Promote were to buy similar programmes on their own, it would easily cost as much.
The bad point is the cost. It takes up a large chunk of the budget, and some of the software bundled in is not needed.

- **Wee Promote need a computer that is capable of designing and creating "interactive multimedia products and presentations"**

  Wee Promote needed a computer that was capable of designing interactive multimedia products. This meant the computer needed a very good quality graphics and sound card. Therefore I got an ATI Radeon 1gb HD graphics card capable of outputting extremely good quality images, and I also got an Sound Blaster X-Fi Xtreme Audio sound card, which is capable of outputting 7.1 channel audio, meaning that too is very good quality. Wee Promote also needed video and audio editing software, so I got Roxio RecordNow Music Lab 10 for the audio, which is gives professional quality sound editing, and I got Corel VideoStudio Pro X2 Ultimate which has many features and layers that can be added to videos to make them seem professional. The large HDD I got is essential for this task as Wee Promote will require a lot of space for creating and saving video and audio files of any significant quality. I got Wee Promote Roxio Creator 2010 Pro as it can burn many different file formats, convert formats, and even (if Wee Promote decide to get 1) burn through a Blu-Ray Disk drive onto BD (Blu-Ray Disk) for HD quality multimedia. I decided only to go for a DVD RW and not a Blu-Ray drive because Blu-Ray is very expensive still, and if the presentation is for an advertisement stand, it is very unlikely the company will use a Blu-Ray player, and therefore the extra expensive would be worthless.
  The good point is the fact that the software picked gives near-professional quality finish, and it was all reasonably cheap. The bad point is it may not be as user friendly as some software, and the burning software I picked supports an optical disk format (Blu-Ray), which I have not included in the computer specification, as I felt it, was not necessary.

- **Wee Promote need a computer capable of burning off data CD/DVD's**.

  For this task, I decided to get a 22x DVD RW +/- as DVD rewriters can also burn data onto CD. I also got Roxio Creator 2010 Pro for the burning software because it can burn to many different disk formats (CD/DVD/HD-DVD and BD), and can convert files so that they are readable by the necessary machine (e.g. a video in .avi format into something that can be read by a general day-to-day DVD player).

The good point is the optical disk drive I have picked has a fast read and write rate, meaning it is ideal for Wee Promote.
The bad point is that I have not included a Blu-Ray Disk drive, which would have made sense due to everything going HD, and Blu-Ray is the best HD format, not to mention on a single layer it can hold 25gb to 33gb worth of data.

- **Wee Promote need a computer capable of creating audio / visual products**.
    This meant the computer needed a very good quality graphics and sound card. Therefore I got an ATI Radeon 1gb HD graphics card capable of outputting extremely good quality images, and I also got an Sound Blaster X-Fi Xtreme Audio sound card, which is capable of outputting 7.1 channel audio, meaning that too is very good quality. Wee Promote also needed video and audio editing software, so I got Roxio RecordNow Music Lab 10 for the audio, which gives professional quality sound editing, and I got Corel VideoStudio Pro X2 Ultimate, which has many features and layers that can be added to videos to make them seem professional. The large HDD I got is essential for this task, as Wee Promote will require a lot of space for creating and saving video and audio files of any significant quality.
    The good point is that the computer has top-end graphic and sound cards meaning it will not get outdated as quickly as other machines. The computer has a large HDD that is essential for storage, and the equal sized external HDD (both of 1 terabyte) is also essential for backups.

- **Wee Promote need a computer with a printer capable of printing off "high quality, colour printed paper literature", however not in bulk**.
    For this task, Wee Promote primarily needed a good quality printer. Therefore, I decided to get a HP Photosmart All-In-One Printer. This way, they can scan images in, print documents off in colour and high quality.
    The good point for this is that the ink is reasonably cheap for the HP printer.
    The bad point is that although the printer itself is pretty good, the scanning quality is not known, so therefore one of the features, which Wee Promote would use, may be made redundant by a poor scanner.

- **Wee Promote need a computer that can output documents in an electronic portable format**.
    As part of the Adobe Creative Suite, a document converter is included in the form of Adobe Acrobat 9 Pro, which converts files to PDF, which is readable by printers and other electronic portable readers (E-Book readers for instance).
    The good point of this is that it is bundled in with a package I had already picked for Wee Promote due to the other software included, so having Acrobat 9 Pro included is a bonus.

The bad point is that it only converts and reads TO .PDF, not from the electronic reading format to an editable format.

- **Wee Promote need a computer that can connect to the Internet**.

  For this task, I got a computer with an Onboard 10/100/1000 Gigabit LAN Port, and a monthly subscription to Virgin Media 10mb broadband for £13 a month. This is ideal for Wee Promote as 10mb broadband, which has unlimited downloads, is enough for the various Internet requirements of Wee Promote, such as video conferencing and emailing.

  The good point is that I have picked an "Onboard LAN Port". This means it is a wired connection to a modem, which is more secure than wireless (would have to hack into the modem rather than the wireless signal) and much more faster and consistent that wireless (faster because it doesn't have to go through a router, and more consistent because wireless can pick up interference or lose signal through multiple objects, especially metal).

  The bad point is convenience. Wireless is more convenient, because if Wee Promote gets a laptop, or a client uses a laptop for business, then they will not be able to connect to the Internet without Wee Promote buying a router first.

- **Wee Promote need a computer that is capable of supporting and translating multiple languages (English, French, Spanish)**.

  For this particular task, I have chosen LEC Translate 2005 as the language translation software. It has more languages than required, but that is ideal if Wee Promote were to expand, and would provide more reliable translation that Google Translator which (from experience) can give the wrong translation completely. I also had to find an OS that supported multiple languages as well as desktop publishing software that supports multiple languages; Luckily, Microsoft's Windows 7 and Office 2007 both support multiple languages, which is exactly what Wee Promote needed. Both the OS and desktop publishing software are user friendly, so that makes things easier for the staff of Wee Promote.

  The good point is that the language translation software supports many languages, so if Wee Promote were to expand, then they are able to translate into many languages,

  The bad point is the price. For the language translation software, because it is business software and supports many languages, the £200 price tag may be a little steep and took up a bit of the budget they may have gone onto something else.

- **Wee Promote need a computer that has a large storage capacity**.

  For this task, the computer needed a fast processor so that it can handle the process for accessing and writing data to and from the HDD, therefore I decided to go for the Intel Core i7 Extreme Edition i7-975 processor, the fastest one available. Wee Promote needed a large storage capacity, so I decided to get a 1 terabyte HDD with 16mb cache and 7200rpm, meaning it is very large but also fairly quick at accessing and writing the data. I also

got a 1 terabyte external HDD for creating backups, which has a 32mb cache and 7200rpm, but uses USB 2.0 rather than an SATA slot, which means whilst on paper and in numbers it is better (32mb cache means it can prepare more data than 16mb), the transfer to the external HDD will be slower through USB 2.0 than it would be through SATA.

The good point of having a large HDD means that Wee Promote wont need to be constantly getting a new HDD once it is full, because 1 terabyte is plenty of space.

The bad point will be the access rate. Because it is larger than your average HDD (normally about 250gb), it will take longer to access and find the data in comparison to an average HDD.

- **Wee Promote need a computer that can handle client administration and searching for client records**.

  For this task, Wee Promote needed software that was capable of storing and accessing client records. I decided to go for Microsoft Excel and Access, which is part of the Microsoft Office 2007 package, as it is quite user friendly and can interact with Microsoft Word for things like mail merge. I also stated that Wee Promote would need a headset for voice recognition (e.g. search through records verbally). I decided not to buy a headset as the webcam I decided to buy had a built in microphone.

  The good point of my chosen software is that the software and files saved can interact with other pieces of software in the Microsoft Office bundle. For example, a list of clients from Access can be inserted into Word using mail merge so that a generic letter can be sent. This cannot be done with other pieces of software.

  The bad point is that I didn't get a headset. If Wee Promote has more than one person working for them, it means that they will have to use the built in microphone on the webcam, which can lead to confusion on the system. It would have been more practical to have one or two headsets to make things easier.

- **Wee Promote need a computer that is capable of video conference functions.**

  For this task, Wee Promote needed a good Internet connection (as mentioned and fully described on the previous page). They also needed a webcam that was capable of taking good quality video, preferably one with a built in microphone. The chosen webcam is a Logitech QuickCam Sphere AF. It records in HD and at 20 megapixels, meaning it is ideal for Wee Promote. The image will be crystal clear (internet connection and lag dependant), especially given the fact that Wee Promote has a HD graphics card and a HD monitor. Also, the speakers I decided to buy are reasonable. They don't take full advantage of the 7.1 channels available through, but 2.1 channels are sufficient for editing audio and for video conferencing. I have not listed a dedicated video conferencing software, but MSN Messenger has built in video calls, as does SKYPE, so these two will be ideal for a small business such as Wee Promote. However, if the business

expands then Wee Promote will have to look into dedicated software, because both MSN and SKYPE have recipient limits on video calls.

The good point is that the camera is HD, so the image shown will be in 720p (720 horizontal lines, p stands for progressive scan meaning it shows the frame in its entirety), meaning the image is crystal clear, and the internet connection chosen is reasonably good, sufficient enough at least for video conferencing effectively. The best part though is that it is unlimited downloads, so no extra charge will be applied for going over a certain amount of bandwidth, and seeing as video conferencing (in HD too) would take up a lot of bandwidth, its ideal.

The bad point is the chosen speakers, lack of dedicated video conferencing software and no headsets. The speakers are sufficient enough for audio editing and listening to people over the video conferencing, but will not offer the same clarity or quality of 7.1 channel surround sound. No headset means that if multiple users on one end are speaking, they don't have their own microphone. The lack of dedicated video conferencing software is also a disadvantage, because MSN only allows 2 participants, and SKYPE offers a similar number, meaning if the business grows then MSN and SKYPE will be made redundant as they don't allow for multiple participants.

- **Wee Promote need a computer that has a strong security set up.**

  For this task, I have chosen to go with Windows 7 as the Operating System. I have done this because Windows offers multiple users, their own logons and passwords, meaning that it can be limited to staff only. I have also gone for Microsoft Security Suite 7, which includes adding passwords to files as well as the usual anti-phishing, anti-spamming and anti-virus protection.

  The good point is that none of the above will conflict. It is known that certain software will conflict with each other, such as Ad-Aware and Windows Vista. However, with all the above products being Microsoft owned, none of them will conflict ensuring the computer runs smoothly and is protected.

  The bad point is that I have not listed a dedicated backup software. However, Windows 7 has its own built in backup facility, but this may not be as good as dedicated backup software.

First Draft:

Strengths: I have found multiple hardware and software that would be relevant to Wee Promote, and I have specified a computer that is top of the range with features relevant to Wee Promote. I have met all the requirements that Wee Promote needed.

Weakness: I could pick some better software in some categories, or buy bundles that offer the same content but in a cheaper package.

Final Draft:

Improvements Made:
Chosen more relevant software in some cases and chosen bundles that offer multiple software that Wee Promote would use.

Strengths:
More relevant software chosen.
Kept within a budget of £3500
Adobe Creative Suite 4 includes many different programmes which I would have chosen anyway for Wee Promote, so therefore it reduces the overall cost as a bundle rather than individual prices

Weaknesses:
Didn't choose any headsets
Didn't get any High Definition Optical Disk Drives (such as HD-DVD or Blu-Ray)

Improvements to make:
Include other factors in my search for hardware and software, such as whether it will work with Windows 7.
Make sure to get every piece of equipment and software needed.

Practical Work Evaluation

In this report, I am going to evaluate my performance during the practical work of Task C and Task D, the making a computer work (configure RAM BIOS, install Windows, etc.) and the making macros respectively.

During Task C, I had to install multiple software, including Windows XP, Microsoft Office, as well as burning software and other software. The methods of installation varied from program to program. For example, I told the computer to boot from disk before the installation of Windows XP so that I could use the disk to install it. I then told it to run, and chose the recommended settings for each category.

For the Windows XP installation process, I just followed the instructions as they came on screen and let the install process carry out. I made sure that the configuration was set to UK standard, such as the date and time was set to 00:00 London, and that the keyboard was set to English UK. The good thing about this was that it almost installed itself, with little prompts from the user, and I was able to configure the computer to a certain specification. The bad point is that the user has little say in what is installed, and it did take quite a while for it to install fully. To improve for next time, I would make sure the boot sequence is correct first time round, because when I had to boot from computer, it immediately tried to boot from the disk which was still in the computer at the time.

For programs, such as Burn4Free or Microsoft Office, I followed the installation wizard. This meant I had the options to customise the install, and to install different components (Burn4Free for example had the option to install the Burn4Free toolbar, which I declined). The good point is that the configuration is dealt with and set so that the program can run immediately, and that any default components are automatically installed, rather than doing a custom install and missing vital components. However, the bad point is that some unnecessary features may have been installed, and therefore it may have been better if I had done a custom install (the toolbar mention was at the end of the installation process). To improve, I should, if possible, use custom installation, and choose the features I think are necessary, rather than the entire package being installed taking up memory.

I never really had a installation plan, so I may have installed unnecessary software, or may have missed software that Wee Promote may have needed. For example, when I was installing anti-virus software, I needed to connect to the internet to download the latest version of the software. However I had not installed the Network Card Driver, so I had to go through the process of installing the driver and making sure the network worked before carrying on. This is a bad point as it meant I wasted time installing various things as I went along rather than installing things in a reasonable order.

For testing, I did quite a bit of testing. However, a lot of it was instinctive testing (once a program had installed, to immediately run it as the shortcut appeared on the desktop), and therefore was not documented. I made sure that programs ran, I made sure the time and date was set correct, along with making sure the internet connection was set correct and

that the printer had been set and configured properly (by printing "This is a test".) The good point is that testing was done, as I made sure that everything worked. However, the bad point is that it was mainly instinctive testing and therefore I did not document it as I felt that it wasn't "testing", but just double-checking I had done everything. To improve, I would write out everything I tested, be it instinctive or otherwise, to ensure that my testing is as thorough as it could be.

For Task D, I created macros within Word and Excel. This meant creating a macro, then adding it to a menu or toolbar for easy access. I made macros for a variety of things, from simply typing a name to creating a new row and then copying the formulae from the row above in Excel. I tested each macro as I went along to make sure I had recorded the macro correctly and to make sure it worked as I wanted it to. The good point is that I was instinctively testing the macros as I went along, and making corrections where needed. The bad point, just like my testing for my practical Task C, is that documenting the testing was a second though and therefore not done thoroughly, and not all corrections will have been mentioned.

To improve, I would make sure that I test everything as I go along (as I do now), but also to make sure I document it, even if it seems trivial such as running a program once it has installed. If I am to improve Task C further, I would also customise the installation process to ensure only the necessary features and programmes are installed.

G043 Assessor Observation Record

Centre Number:	0 0 0 0 0				

Candidate Name	xxxxxxxxxxxxx	**Candidate Number**	0 0 0 0		

Software Installation and Configuration

Criteria	Observation Notes	Achieved	Date
BIOS settings configured	*BIOS has been configured to recognise HDD / CD-ROM, boot order been set and date/time has been set. Considered password for system.*	✔ J	*00/00/09*
Suitable operating system selected and installed	*Windows XP has been selected to be installed from the 4 different options available candidate gave a verbal response of decision which may be recorded in work… Decision is because it's the newest out of the selection and still supported my Microsoft.*	✔ J	*00/00/09*
Operating system configured to suit user needs	*XP has been configured to meet the needs of the user. Drivers have been installed, screen saver configured and other display options.*	✔ J	*00/00/09*
Security procedures implemented	*Has setup a user account with password, install anti virus software and turned on windows automatic updates and scheduled these to run.*	✔ J	*00/00/09*
Suitable utility software selected and installed	*Installed CD/DVD burning software so Wee Promote can publish their products to optical media as required..*	✔ J	*00/00/09*
Utility software configured to suit user needs	*Tested it worked but didn't really require any specific configuration.*	✔ J	*00/00/09*
Suitable application software selected and installed	*Various applications selected and installed - all choices are suitable for Wee Promote*	✔ J	*00/00/09*
Application software configured to suit user needs	*Some configurations to applications made but could be better evidence. Most of evidence for this is in task d however.*	✔ J	*00/00/09*
Tasks scheduled to suit user needs	*Has scheduled AVG updates and scan to run daily through the AVG interface - auto updates scheduled – NOT used schedule task utility though to manually schedule a task*	✔ J	*00/00/09*

Tool Bars, Menus, Templates and Macros

Criteria	Observation Notes	Achieved	Date
Toolbar layouts designed and implemented	*Made toolbars following design and worked with diligence and skill. Created own icons for buttons which did waste some time.*	✔ J	*00/00/09*
Menu layouts designed and implemented	*Made toolbars following design and worked with diligence and skill. Created own icons for buttons which did waste some time.*	✔ J	*00/00/09*
Macros designed and implemented	*Recorded most of the macros using recording within word/excel but did write some of code on own.*	✔ J	*00/00/09*
Template designed and implemented	*3 templates made following the plans drawn – used empty macro buttons as placeholders*	✔ J	*00/00/09*
How do the above meet the user requirements and provide a more efficient working environment	*All work properly and as expected – student has talked to me about why each was made and aurally gave good explanations of their purpose.*	✔ J	*00/00/09*

Other Notes

Solved problems as went along and reflected on own performance. Testing was carried out but documentation could have been better.

Assessor Signature: ___J_____

Date: _____00/00/09_____