IT Workshop Lab Manual

I YEAR B.Tech,
(Common to All Branches)

Prepared By
Department of
Computer Science & Engineering

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INTRODUCTION

The objective of IT Workshop is to impart basic computer usage and maintenance skills and to introduce you to a suite of productivity tools that will aid in your day to day activities.

IT workshop works in a learning-by-doing mode. It concentrates more on hands-on experience for the participants rather theoretical classes. It enables the participant to make the best use of Microsoft Office Suite in their day-to-day requirements and make use of it to improve the standards in the educational environment. The IT Workshop prepares the participant to have a hands-on experience in maintaining and troubleshooting a PC by themselves.

Computer Hardware, Windows & Linux

Hardware comprises all of the physical parts of a computer, as distinguished from the data it contains or operates on. Software provides instructions for the hardware to accomplish tasks.

Windows is a range of closed source proprietary commercial operating environments for personal computers and also servers. This range was first introduced by Microsoft in 1985 and eventually has come to dominate the world of personal computer market. All recent versions of Windows are full-fledged operating systems.

Linux is a computer operating system. It is among the most famous examples of free software and of open-source development. Initially, Linux was largely developed and used by individual enthusiasts.

Productivity Tools

Microsoft Office is a suite of productivity programs created by Microsoft and developed for Microsoft Windows and Apple Macintosh operating systems. In addition to the office applications, it includes associated servers and Web-based services.

Office is considered to be the *de facto* standard for productivity programs, and has many features not present in other suites. However, the reverse is also true, with other programs having capabilities that Office doesn't.

Microsoft Office suite includes **Word, Power Point, Excel, Publisher, Outlook** in most of its versions.

Internet and World Wide Web

Internet & World Wide Web module introduces the different ways of hooking on to the internet from home and workplace and effectively usage of the internet. Usage of web browsers, email, newsgroups and discussion forums would be covered.

PC Hardware

TASK1:

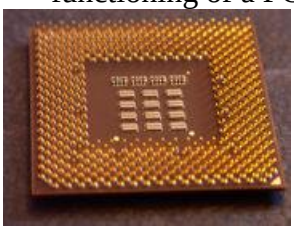
Identification of the peripherals of a computer, components in a CPU and its functions. Draw the block diagram of the CPU along with the configuration of each peripheral.

COMPUTER HARDWARE

Introduction to Computer Hardware:

Hardware is the physical appearance of the devices or tools. It is what which we can touch and feel.
Computer Hardware consists of the Monitor, CPU, Keyboard, Mouse and all other devices connected to the computer either externally or internally.
A typical computer (personal computer, PC) consists of a desktop or tower case (chassis) and the following parts:

1. **CPU** The central processing unit contains the heart of any computer, the processor. The processor is fitted on to a Mother Board. The Mother Board contains various components, which support the functioning of a PC.



2. **System board/Motherboard** which holds the Processor, Random Access Memory and other parts, and has slots for expansion cards

3. **RAM (Random Access Memory)-** for program execution and short term data-storage, so the computer doesn't have to take the time to access the hard drive to find something. More RAM can contibute to a faster PC.

4. **Buses :** PCI bus, PCI-E bus, ISA bus (outdated), USB, AGP

5. **Power Supply** - a case that holds a transformer, voltage control and fan

6. **Storage controllers**, of IDE, SCSI or other type, that control hard disk, floppy disk, CD-ROM and other drives; the controllers sit directly on the motherboard (on-board) or on expansion cards

7. **Video display controller** that produces the output for the computer display

8. **Computer bus controllers** (parallel, serial, USB, Fire wire) to connect the computer to external peripheral devices such as printers or scanners

9. Some type of a removable media writer:

10. **CD** - the most common type of removable media, cheap but fragile.

    CD-ROM, , CD-RW, CD-R, DVD, DVD-ROM., DVD-RW, DVD-R,

11. **Floppy disk**

12. **Tape Drive** - mainly for backup and long-term storage

13. **Internal storage** - keeps data inside the computer for later use.

14. **Hard disk** - for medium-term storage of data.

15. **Disk array controller**

16. **Sound card** - translates signals from the system board into analog voltage levels, and has terminals to plug in speakers.

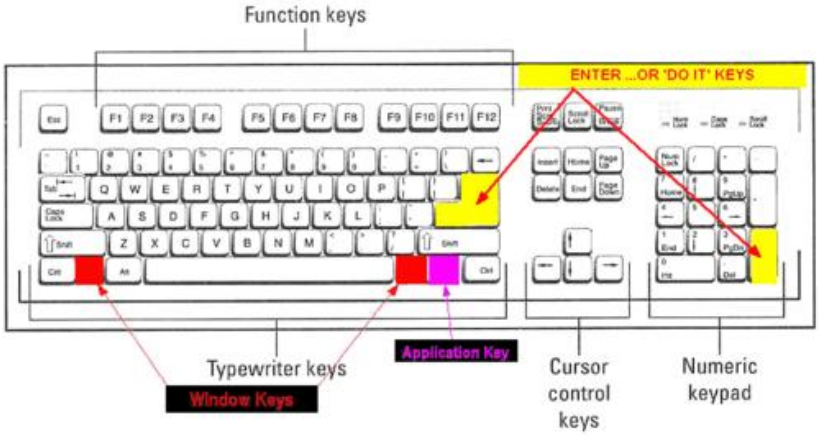
17. **Networking** - to connect the computer to the Internet and/or other computers

18. **Modem** - for dial-up connections

19. **Network card** - for DSL/Cable internet, and/or connecting to other computers.

20**.Other peripherals:** In addition, hardware can include external components of a computer system. The following are either standard or very common.

Input , Keyboard, Pointing devices, Mouse, Trackball, Joystick, Game pad



21.**Output :** The ouput devices are:

Printer, Speakers, Monitor, Networking, Modem, Network card

TASK2

COMPUTER ASSEMBLING AND TROUBLE SHOOTING

How to Build Your Own PC

For many, building a computer is scarier than working on a car. Saving money isn't the only benefit to building your own computer. In addition, you will acquire knowledge otherwise required for an upgrade further down the road. You'll also get exactly what you want. Before you can sit down at your new computer desk though, you'll need to actually build the system. Piecing a computer together may sound like a tough task, but if you take a couple of precautions, there is nothing to worry about. Most components include warranties and a toll-free number. If you suspect a particular piece of hardware is causing dissention in the ranks, don't hesitate to ask for help.

Before We Begin:

In order to ensure everything goes smoothly, gather a few important tools. A head screwdriver is a must and needle-nosed pliers are often helpful. Buy quality thermal grease to keep the processor in contact with the heat sink. If you don't have an anti-static wrist band, make a conscious effort to touch a ground point every so often (exposed metal on the case works fine) to keep electrostatic discharge from damaging any of your components.

Step One: Case Preparation

You need to make sure your case is ready to accept the insides of a computer. After opening the empty case (usually accomplished by removing two screws on one side), lay the case on its side, so the motherboard can be dropped into place. If the case includes screws and cables, take those out and set them aside. There should be a set of copper colored spacers in the bag of screws – we'll use those to mount the motherboard

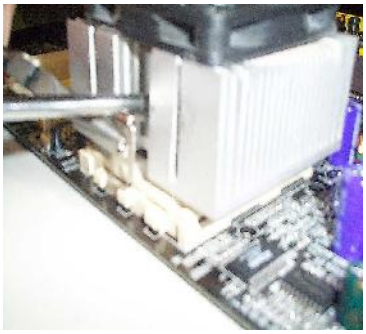
above the metal plate on the side of the case. You may need to lay your motherboard down in the case to determine where the copper spacers are needed, but be extra careful – if you add a spacer that doesn't correspond to a mounting hole in the motherboard, you risk a short-circuit.

Next, you'll want to check the thin, metal plate towards the rear of the case that includes holes for the PS/2, serial, parallel, and USB ports. If it matches the configuration of your motherboard, you're set. If not, you'll need to remove the plate by sliding it out. Again, be careful; the sides of the plate are sharp. Once the proper plate is in place, set the case aside for a moment and focus on the motherboard.

Step Two: Populate the Motherboard

Working on a motherboard that has already been mounted can get tricky, so it is best to install the processor and memory before the board is installed in a case. Both the Pentium 4 and Athlon XP plug into a processor socket with no force, so there should be no reason to apply pressure when installing the processor. First, lift the arm adjacent to the socket. Then align the processor with the socket according to the pattern of pins on the socket interface. There is only one way the processor will fit, so again, do not apply pressure while inserting the chip. Finally, close the arm, securing the processor on the motherboard. Now, using the thermal grease mentioned previously, apply a thin film over the processor's core.

The process isn't nearly as graceful for Athlon XP owners. In fact, be forewarned that the processor core is sensitive to pressure, so if you feel you may be pushing too hard to affix the heat sink, take a quick break to re-evaluate your strength, tough guy. There is only one way that a Socket A heat sink should fit, so be sure that the larger end of the socket aligns with the cut-out section of the heat sink. One end will clip easily onto the motherboard, while the other will require more persuasive coercion. In the following picture, I've demonstrated a technique for attaching a heat sink. Use a screwdriver to push down on the clip while pulling outwards with a set of pliers.



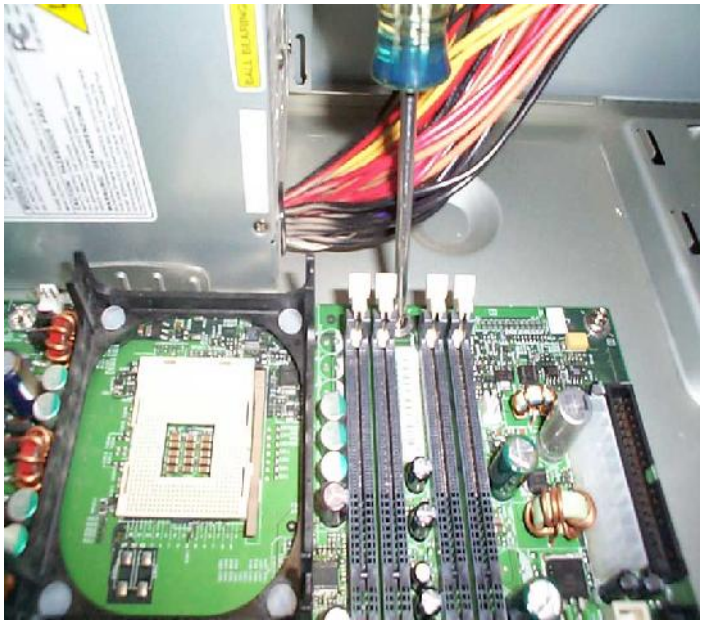
Step Three: Fixing Memories:

Depending on what type of motherboard you've got, there may be some variation in how memory is installed. Still, there are a few general rules of thumb you'll want to abide by. First, don't immerse the modules in water.

Second, pay close attention to the type of RAM supported by your motherboard. Some boards support both PC133 and DDR memory, but the majority is constrained to a single standard. If DDR is your poison of choice, note that the modules will only fit into the 184-pin slots one way. Boards that support 16-bit RDRAM require that two modules be used at a time. If the board has four slots and you've only got two modules, be sure that the remaining two are terminated with a CRIMM module (usually included with i850 motherboards). The installation process itself is simple: pull the plastic clips on each end of the slot, inset the module according to the slot's keying, and apply equal force to the entire module until it clicks into place. Repeat, if necessary.

Step Four: Fixing your motherboard

Since the motherboard now houses a processor and memory, it can be installed in the already-been-prepped case. Line up the mounting holes with the copper spacers and use the included screws to mount the board. Now that your custom machine is taking shape, it may be a good time to step back for a break. Relax, meditate, take some pictures, watch Friends, or have a Big Blue Banana.



Step Five: Prepare the Cables

Most motherboards include two IDE cables and a floppy drive connector. While the interior of the case is still clean (thus reasonably accessible), attach the cables to the motherboard. Note that one end of the cable has two connectors close together – this end attaches to your IDE device of choice, while the other end goes to the motherboard. Each cable should be marked with a red wire to indicate Pin 1. It is imperative to match Pin 1 on the cable with Pin 1 on the motherboard and again with Pin 1 on the hard disk drive or CD-ROM.

Conventional IDE cables are fine for the most part, but in the interest of cleanliness, we've developed a soft spot for round cables. Not only do these cables take up less room, but they are also easier to tuck away, promoting better air flow throughout your case.

Step Six: Install Your Media

With the cables out of the way, you can now install your hard disk drive, CD-ROM drive and floppy disk drive. First, you'll want to make sure each drive is designated as a 'master' or 'slave' drive using the jumpers on the back of each drive. If you've got one hard drive and one CD-ROM, you'll see the best performance from both devices if each is installed onto its own channel. In that case, both drives can be set as 'masters.' With the addition of a CD-RW drive, you would want to assign one drive as a 'master' and one

as a ‘slave,’ leaving the hard drive on its own channel.
Now, you’re ready to add a CD-ROM drive. You may have a metal panel preventing you from inserting the drive into a 5.25" slot. If so, remove the panel by rocking it back and forth until it comes loose. If your case uses rails, attach them to the drive and slide it into the chassis. Otherwise, use the included screws to secure the drive.

The floppy drive can be installed using the same method, only use one of the external 3.5" inch bays. Attach the appropriate cable and secure the drive using the same small screws.

Finally, install your hard disk drive in an internal 3.5" bay. Many cases sport detachable disk drive bays that often ease installation, but if we were really looking for the easy way out, we would have picked up a G4 Cube. Attach the ends of each cable to the corresponding drive. For instance, the end of the primary IDE cable should run to the hard drive. Similarly, the end of the secondary cable should go to the secondary ‘master’ drive, while the second connector attaches to the secondary ‘slave.’

Step Seven: In Go the Cards

Expansion cards add capabilities beyond what integrated sound and graphics can do. Additionally, you can buy cards that add SCSI, USB 2.0, Gigabit networking – even cable television support!

Unless your new system is to be used exclusively for business, it's a safe bet that a new graphics card will find its way into your AGP slot (the brown one in the middle of the motherboard). Nowadays, graphics cards are cooled by heat sinks and fans, much like processors. It should come as no surprise, then, that high-end cards generate lots of heat. When I build a computer, I typically leave the white PCI slot closest to the video card empty for plenty of air flow. Installing the card itself is a snap – position the card over the slot and push down gently until it is fully inserted. Use one of the screws included with the case to secure the card to the chassis. Use the same procedure to install each of your other cards. If you haven't yet purchased them, consider an upgraded sound card and network card, at the least.

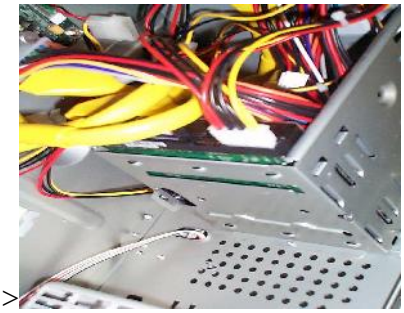
>

Step Eight: Connecting the Connectors

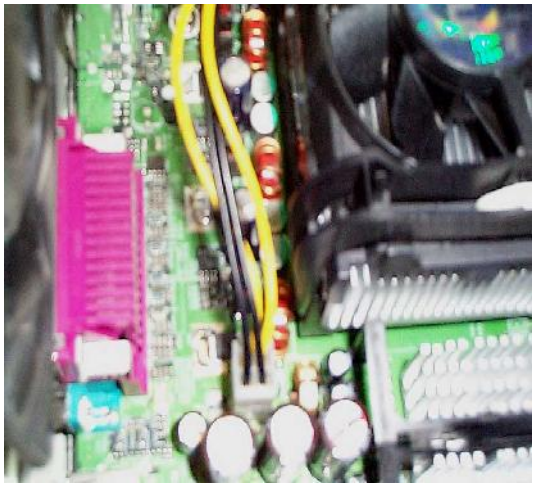
In order for your computer to turn on when you hit the power button, you need to connect the switches and light emitting diodes (LEDs) from your case to the motherboard. The connectors themselves are usually labeled, but it can be a little harder to locate the pins on the motherboard. Your best source for this data is the manual included with the board. Once you have the connectors, well, connected, we can move on to the next step. Don't worry; we'll test the lights and switches a little later.Dont forget refer to the motherboard manual while connecting the connectors

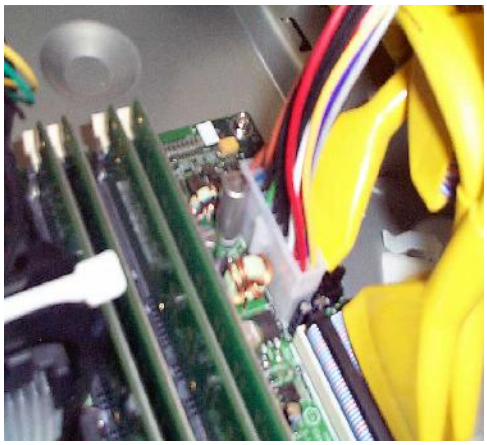
Step Nine: Power supply

We've waited a long time for this – simply, I have no desire to play with hardware actively fed by an electrical socket. I have no desire to look like Carrot Top, so I never add power until I'm done under the proverbial hood. We're pretty much done though, so go ahead and connect the large 4-pin power connectors to the hard disk drive and CD-ROM drive. The small 4-pin Molex connector is required for the floppy disk drive. >



If you've got a Pentium 4 processor, not only will you need to connect the ATX power connector, but you'll also require a 4-pin 12V auxiliary connector. Athlon XP-compatible motherboards only need power from the standard ATX connector. At this point, feel free to connect the case's power supply to a wall socket.





Step Ten: Check Properly

Before you put the cover back on the case, it would be wise to test the machine. Connect a keyboard and mouse to the motherboard and a display to the video card. Press the power button and immediately hit the 'Delete' key to enter the motherboard's BIOS. Check the front of the case to ensure both the power and hard drive lights are functioning (you will probably need disk activity before you can check the hard drive LED). Eject the CD-ROM tray to check power to the drive. Finally, check the BIOS to make sure the drives are configured as you originally intended. This, unfortunately, is where we part ways – for tips on configuring your BIOS, reference your motherboard's manual.

Hopefully you haven't electrocuted yourself. I think you'd agree that building a new computer is a learning experience, regardless if it's your first time or fiftieth. There is always something that can go wrong, and if you build new machines for long enough, anything and everything will happen. If things don't go your way the first time, be patient and troubleshoot the problem. Always remember to keep manuals of all components with you while fixing your PC.

TASK3

Windows XP Installation:

Windows XP (codename **Whistler**, also known as **Windows NT 5.1**) is the latest desktop version of the Microsoft Windows operating system. It was made publicly available on October 25, 2001. Two editions of Windows XP are most commonly available: **Windows XP Home Edition** which is targeted at home users and **Windows XP Professional** which has additional features such as dual-processor support and the ability to join a domain, a grouping of centrally managed Windows computers. The letters "XP" originate from the word "Experience".

TASK4

BIOS SETUP & DISK FORMATTING

BIOS SETUP

What IsBIOS? BIOS is an acronym for *Basic Input Output System.*
Why BIOS?
To run any system, there must be default settings so that the system can load those settings when it is started or restarted. For a computer system the basic I/O settings and boot process details are necessary to start a system. All these default, predefined settings will be loaded in the BIOS and whenever we start the system, these settings will be loaded. How to view BIOS?

Whenever we start the system, we can enter into the BIOS Setup Utility by pressing *Del Key*. Sometimes an *F1* or *F8* key has to be instead of DEL key, depending on the type of BIOS.

When we enter in to this utility we get these following menus/services, depending upon our mother board.
Main

In main Menu, we can view the details such as BIOS Version, Processor Type, and Speed, RAM Size and the system bus speed and memory speed.

We can change the settings like language system time and date. We can even change the hyper threading facility if the processor supports this technology.
Advanced:
We must be very careful when we change these settings otherwise it may cause our system to malfunction.

Here, we can change the settings of PCI devices, Floppy Drives configuration and chipset, USB peripheral devices and even monitoring the Hardware.
Security:

We can set the supervisor password, to restrict unauthorized users to enter the BIOS setup utility.

User password can also be set to restrict the unauthorized persons to boot or use the system.

What is a Password?

How to type a Password?

We can even set the Chassis Intrusion to protect the system devices from removing the components of the system.
Power:

The power settings protect the system from power failures by configuring the ACPI.

For example, after power failure we can stay off the system or Power on the system or else we can even make the system to restore its previous state by selecting the appropriate options.
Boot:

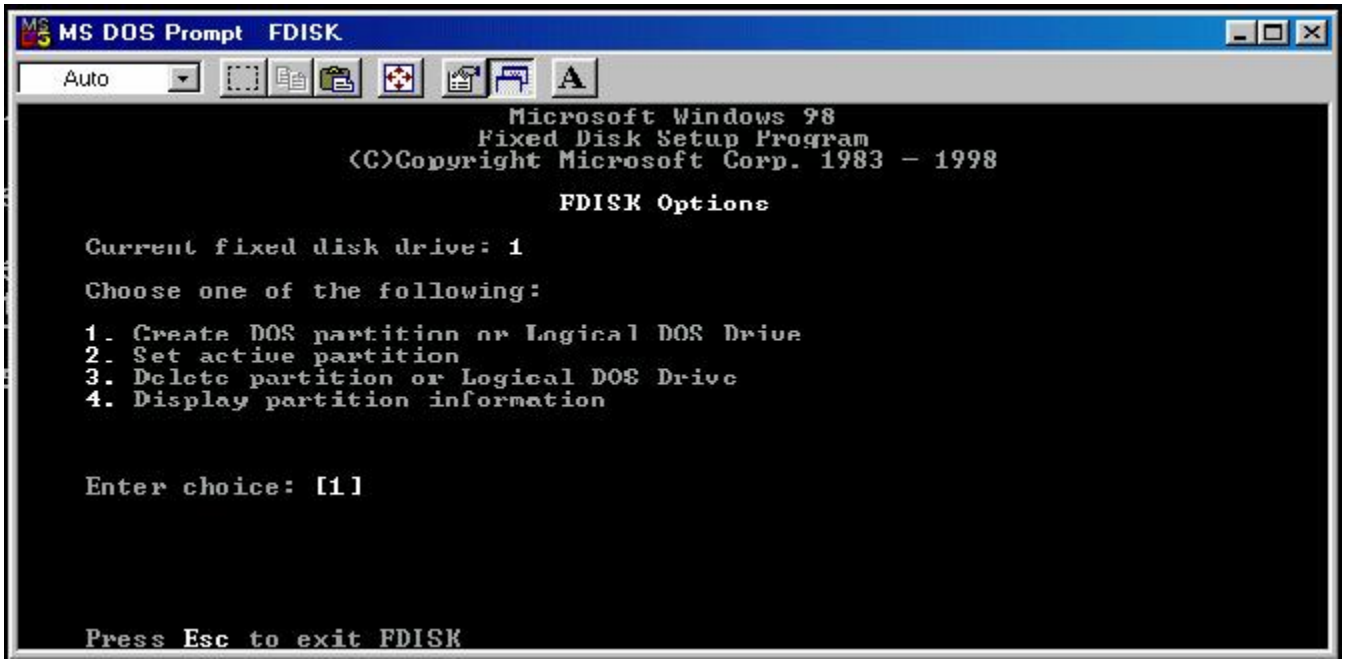
What if you forget Password?
DISK FORMATTING:
What is Disk Formatting?

Disk formatting is nothing but creating new tracks and sectors on a magnetic storage device.
Why Disk Formatting?

Every disk must be formatted before the first usage. Because then only we can address each and every memory unit.
How to Disk Format?

To format the disks we have the following methods.
Fdisk

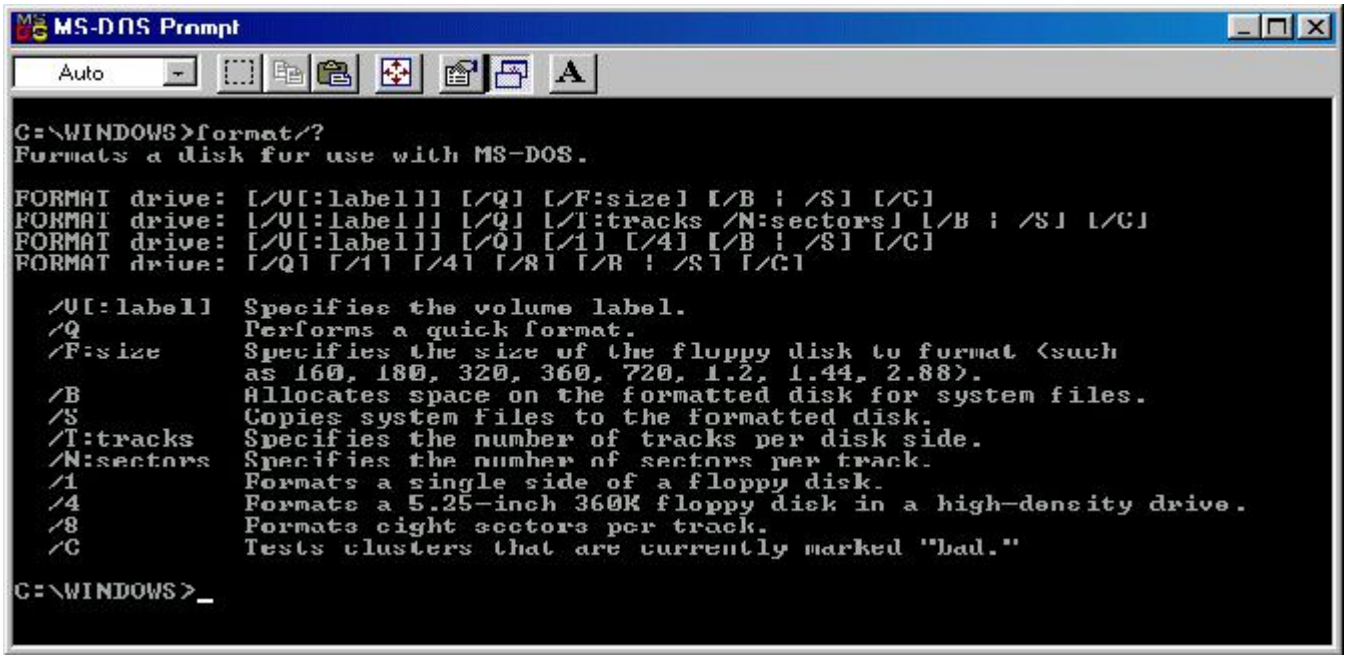
FDisk is a windows command, throw which we can create partitions on a hard drive so that we can format each drive and use the same.



Format

Format is an external command which will create the actual tracks and sectors on a magnetic drive.

To format a partition we need to use *format* command.



Disk Manager

Disk Manager is a tool to manage a magnetic drive, through which we can create the partitions as well as formatting the particular partitions at a time.

Partition Magic

Partition Magic is also a tool to do the same thing but it gives its services available in GUI which is more user friendly.

Red Hat Linux Installation Process:

1. LINUX BOOT OPTIONS

Actually Linux can be installed in two different modes, based on the requirement of the user.

Graphical Mode.

Text Mode.

Graphical Mode - In this you can work with Graphical Interface (i.e., it supports mouse and Icons). By clicking the icon with the mouse, you can perform related action.

To install Linux in Graphical Mode Press Enter.

Text Mode - In this mode you have to interact with character based interface (i.e., Command prompt).

To install Linux in Text Mode Type : Linux text and Press Enter.

After selecting the mode of installation, it goes on detecting the basic input output devices and file systems. And at last it displays a screen asking whether to test the CD inserted to install or to Skip the test process. Otherwise we can test total installation CD's.

On completion of testing the CD's, it goes on loading an installation program "ANACONDA" which helps us in the installation of the remaining part.

2 WELCOME TO INSTALLATION PROCESS

It starts with the display of the welcome screen containing the online help , and four buttons to help us in the different activities in the installation process.

Hide Help/Show Help - Which helps you in guiding the installation process, which can be activated or hidden.

Release Notes - Which contain the Basic Hardware Requirements that are necessary for the installation of the Red Linux 9.0 and some other post-installation issues.

Next - This button allows you to go to next step of the installation process by the current step.

Back - This button allows you to move back of the installation process to make any changes that previously mentioned.

Action: click "Next" to move to next screen.

3. SELECTING A LANGUAGE

It displays a screen containing various languages, to select a language you would like to use during this installation process.

4. CONFIGURING KEYBOARD AND MOUSE

Here we need to select our own keyboard and mouse layouts which will help you to interactively proceed in the installation process.

At this point of time it displays you the different types of keyboard layouts. So that you can select your desired one that you would like to use for the system.

And also choose the appropriate Mouse for the system, based on the following:

Do you have a PS/2, USB, Bus or Serial mouse?

Hint:- If the connector your mouse plugs into is Round - It is a PS/2

If the connector your mouse plugs into is Rectangular - It is a USB mouse

If the connector your mouse plugs into is Trapezoidal - It is a Serial mouse

Select the exact mouse type among the available.
5. TYPE OF INSTALLATION:

There are different installation types that are available which will enable you to select that will best meet your needs.

There are four different types of installations are there –
Personal Desktop
- You select it for personal computers or laptops, select this installation type to install a graphical desktop environment and create a system ideal for home or desktop use.
Work Station
- This option installs a graphical desktop environment with tools for software development and system administration.
Server
- If you would like to set up file sharing, print sharing, and web services and additional services.
Custom
- Select this installation type to gain complete control over the installation process,

Including software package selection and authentication preferences.:
6. PARTITIONING THE DISK

Partitioning the disk can be done either automatically or manually.
AUTOMATIC PARTITIONING
– By selecting automatic portioning, you will not have to use partitioning tools to assign mount points, create partitions, or allocate space for your installation. Automatic partitioning allows you to have some control concerning what data is removed from your system.

To remove only Linux partitions remove all Linux partitions on this system.

To remove all partitions on your hard drive, select remove all partitions on this system.

To retain your current data and partitions, assuming you have enough free space available on your hard disk, select Keep all partitions and use existing free space.

You can review the partitions that are automatically created using the check box Review (and modify if needed) the partitions created.

MANUAL PARTITIONING

– To partition manually, choose the Disk Druid partitioning Tool. For the manual partitioning of Linux installation you need assign disk space for the three compulsory file systems, they are /boot, /(root), swap

/boot

- This type of partition should of ext3 file system type. For this /boot partition a minimum of about 150MB is necessary.

Swap

The swap partition should of swap file system type having a minimum of the double the RAM available on your system.

(i.e., if, RAM is of 512MB, your swap should be a minimum of 1024MB.)

/(root) –

The symbol '/' stands for the root. This root partition should be a minimum of 5GB. And you can also increase it based on your availability to increase your system performance.

To add a new partition Just click on the NEW button and select your mount point (i.e., directory of partition ex: /, /boot, /user, etc.,), select your file system type among the available i.e. Ext3, ext2, swap, vfat, etc.,), and you have different additional size options like Fixed Size, Fill all space up to(MB), Fill to maximum allowable size. And also you can make a partition to be primary partition and check for the bad blocks on each partition.

7. BOOT LOADER CONFIGURATION

The GRUB boot loader will allow you to boot other operating systems. It will allow you to select an operating system to boot from the list. To add another operating system. You can also add other operating systems that are not detected automatically.

For greater system security, you can set your password for the boot loader. To avoid unauthorized changes to the system.

You can also change the type of boot loader other than GRUB, among the available like LILO. And also you can avoid to install boot loader.

8. NETWORK CONFIGURATION

With this option you can set your Network devices manually or using DHCP (Dynamic Host Configuration Protocol) which will automatically takes default IP address, and Net mask addresses. The DHCP also set your Hostname.

9. FIREWALL CONFIGURATION

A firewall configuration is set between yours computer and network. And decides which resources of your computer are accessible by the remote users on the network. On proper configuration of firewall we can set different security levels for the system.

By using firewalls we can avoid any entrusted passage of data and also we can set our own protocol supports.

10 . ADDITIONAL LANGUAGE SUPPORT

This screen shows different additional languages for installation. These additional languages can be used to switch after installation process.

11. SELECTING A TIME ZONE

To set our time zone we can do it either by selecting computers physical location or by your time zone's offset from Universal Time, Coordinated. This screen shows two tabs namely location and UTC Offset. First tab offers you the ability to configure by location. Second tab allows to set UTC Offset.

12. ROOT PASSWORD SETTINGS

The Root password is for avoiding any unauthorized access to Administration settings .

13. PERSONAL DESKTOP DEFAULTS

With this screen we can accept the default package list or we can customize the set of packages to be installed.

14. SELECTION OF PACKAGES TO INSTALL

On selecting the customized set of packages we can select our own selection of desktops, applications, servers, development tools and system tools to be installed among the available.

And also we have an option to select a minimal set of packages and all the packages that are available which will install complete set of packages(about 1400) which will require about 4850 MB of space.

15. ABOUT TO INSTALL

This is the final step to make any modifications to the installation process. Once you click the next button you cannot do any modifications.

16. INSTALLING THE PACKAGES

First it formats the file systems and copies the files to our hard disk to continue installation. Then there starts the installing of packages which may take up to several minutes of time during which we need to insert next two CD ROMs to complete the installation process.

17. CREATING A BOOT DISK

Here the prompts you to create a Linux boot disk on your choice for your further requirement.

18. CONFIGURING YOUR DISPLAY

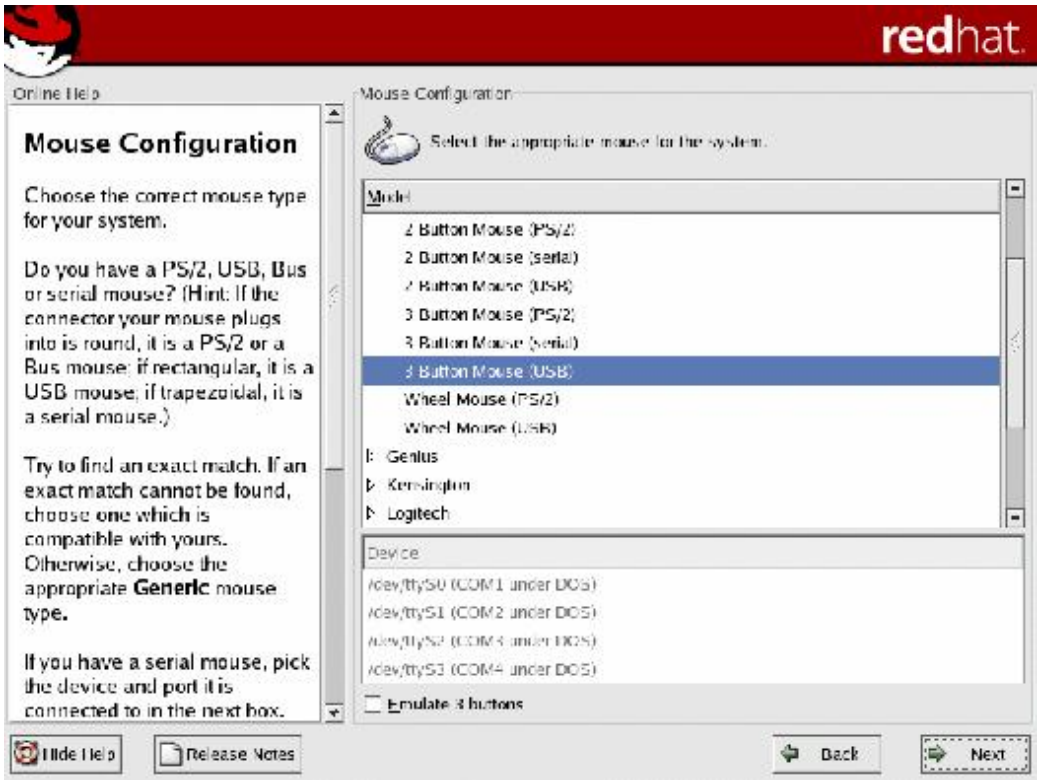
At this stage you need to select your video card type and monitor configuration and also you restore to the original values.

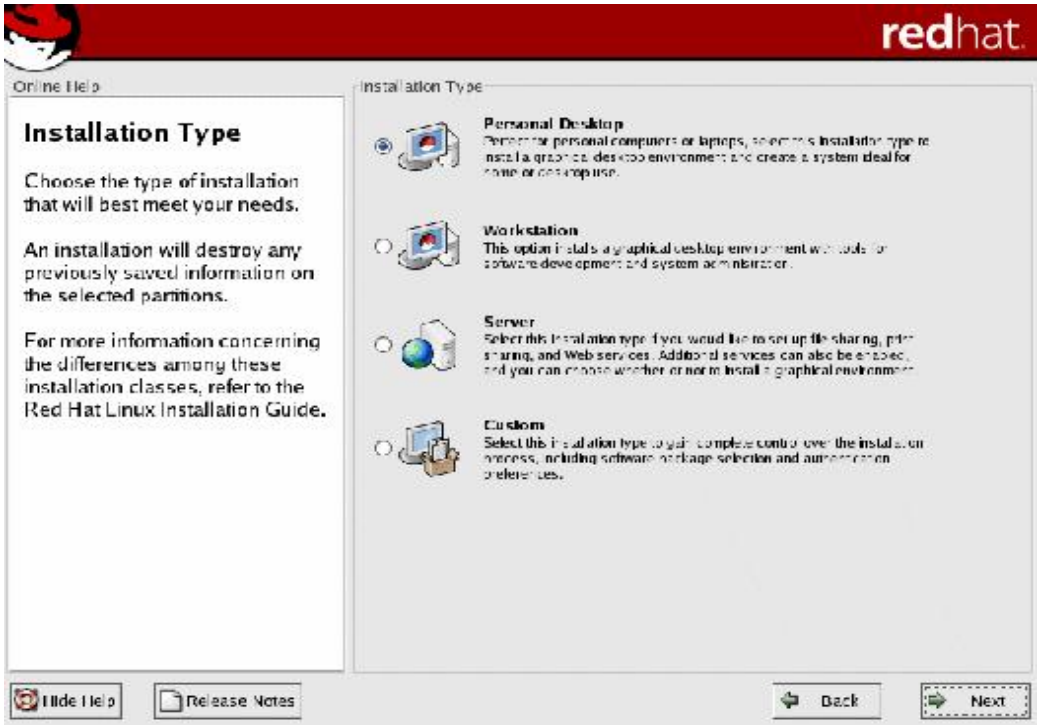
19. END OF INSTALLATION PROCESS At the end of the installation process it will remove all the media that is used by the installation. And reboots your system again.

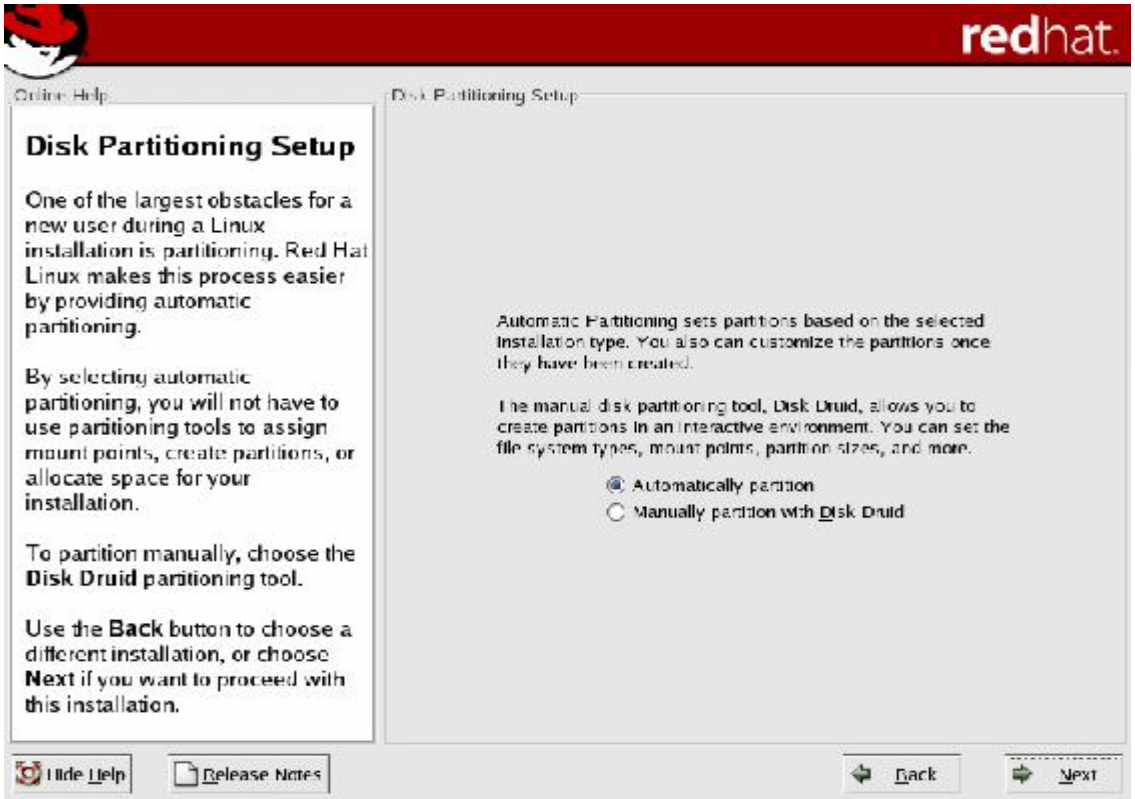
Screenshots

redhat.
Online Help
Welcome
Welcome to Red Hat Linux
Welcome! This installation process is outlined in detail in the Red Hat Linux Installation Guide available from Red Hat, Inc. Please read through the entire manual before you begin this installation process.
HTML and PDF copies of the manual are available online at http://www.redhat.com/docs. There is also an HTML copy on the CD set.
If you have purchased a boxed set, be sure to register your product through our website (http://www.redhat.com/apps/activate/).
Red Hat Linux
Hide Help
Release Notes
Next

redhat.
Online Help
Language Selection
Language Selection
Choose the language you would like to use during this installation.
What language would you like to use during the installation process?
Chinese(Simplified) (简体中文)
Chinese(Traditional) (繁體中文)
Czech (Čeština)
Danish (Dansk)
Dutch (Nederlands)
English (English)
French (Français)
German (Deutsch)
Icelandic (Íslenska)
Italian (Italiano)
Japanese (日本語)
Korean (한국어)
Norwegian (Norsk)
Portuguese (Português)
Portuguese(Brazilian) (Português (Brasil))
Russian (Русский)
Spanish (Español)
Hide Help
Release Notes
Next


redhat.
Online Help
Mouse Configuration
Mouse Configuration
Choose the correct mouse type for your system.
Do you have a PS/2, USB, Bus or serial mouse? (Hint: If the connector your mouse plugs into is round, it is a PS/2 or a Bus mouse; if rectangular, it is a USB mouse; if trapezoidal, it is a serial mouse.)
Try to find an exact match. If an exact match cannot be found, choose one which is compatible with yours. Otherwise, choose the appropriate Generic mouse type.
If you have a serial mouse, pick the device and port it is connected to in the next box.
Select the appropriate mouse for the system.
Model
2 Button Mouse (PS/2)
2 Button Mouse (serial)
2 Button Mouse (USB)
3 Button Mouse (PS/2)
3 Button Mouse (serial)
3 Button Mouse (USB)
Wheel Mouse (PS/2)
Wheel Mouse (USB)
Genius
Kensington
Logitech
Device
/dev/ttyS0 (COM1 under DOS)
/dev/ttyS1 (COM2 under DOS)
/dev/ttyS2 (COM3 under DOS)
/dev/ttyS3 (COM4 under DOS)
Emulate 3 buttons
Hide Help
Release Notes
Back
Next


redhat
Online Help
Installation Type
Choose the type of installation that will best meet your needs.
An installation will destroy any previously saved information on the selected partitions.
For more information concerning the differences among these installation classes, refer to the Red Hat Linux Installation Guide.
Installation Type
Personal Desktop
Workstation
Server
Custom
Hide Help
Release Notes
Back
Next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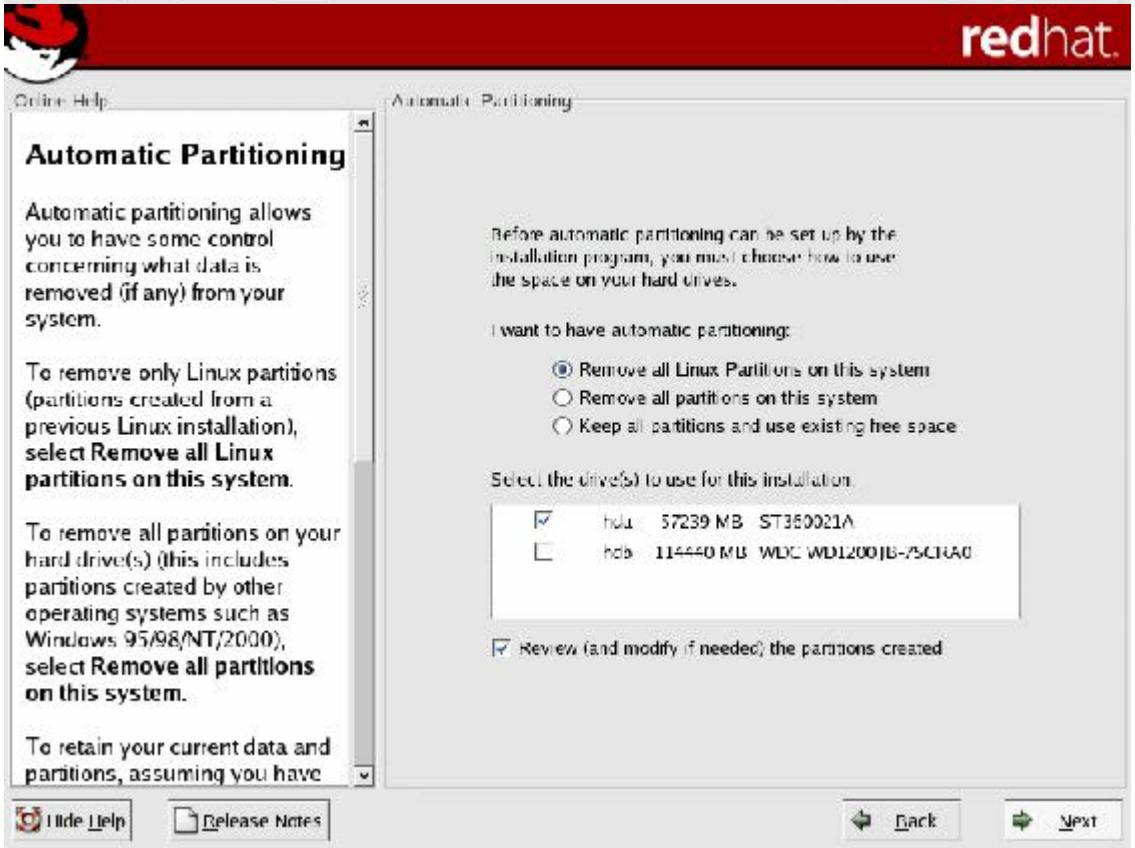
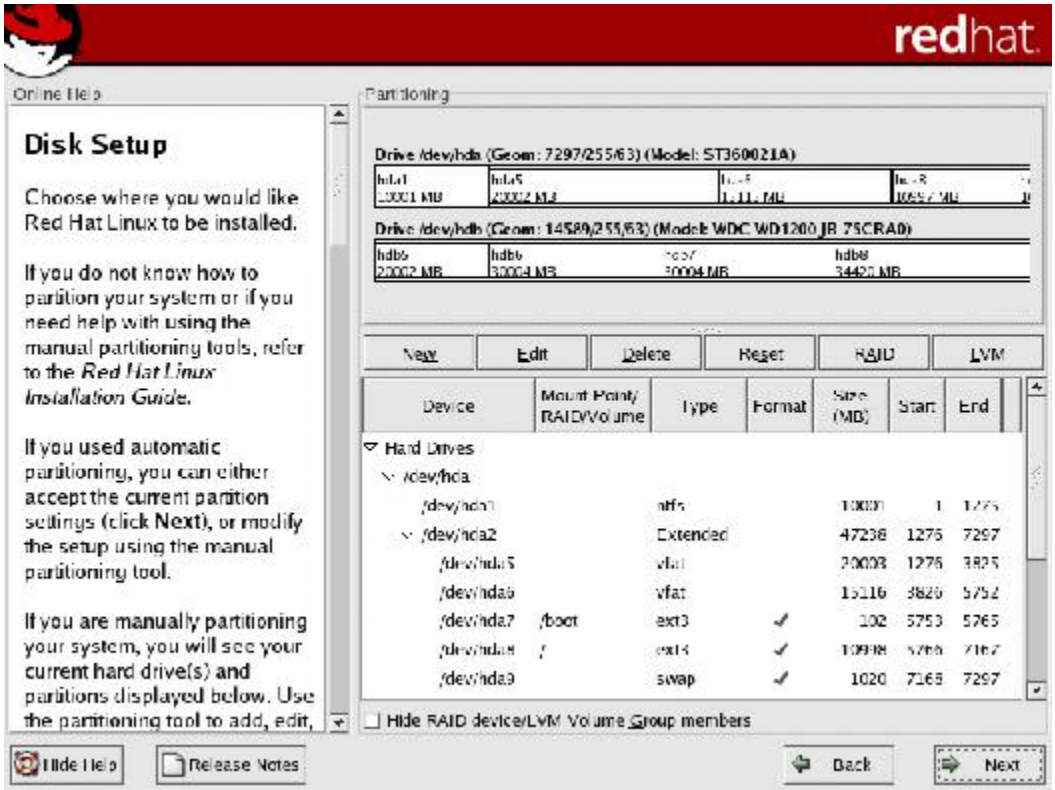
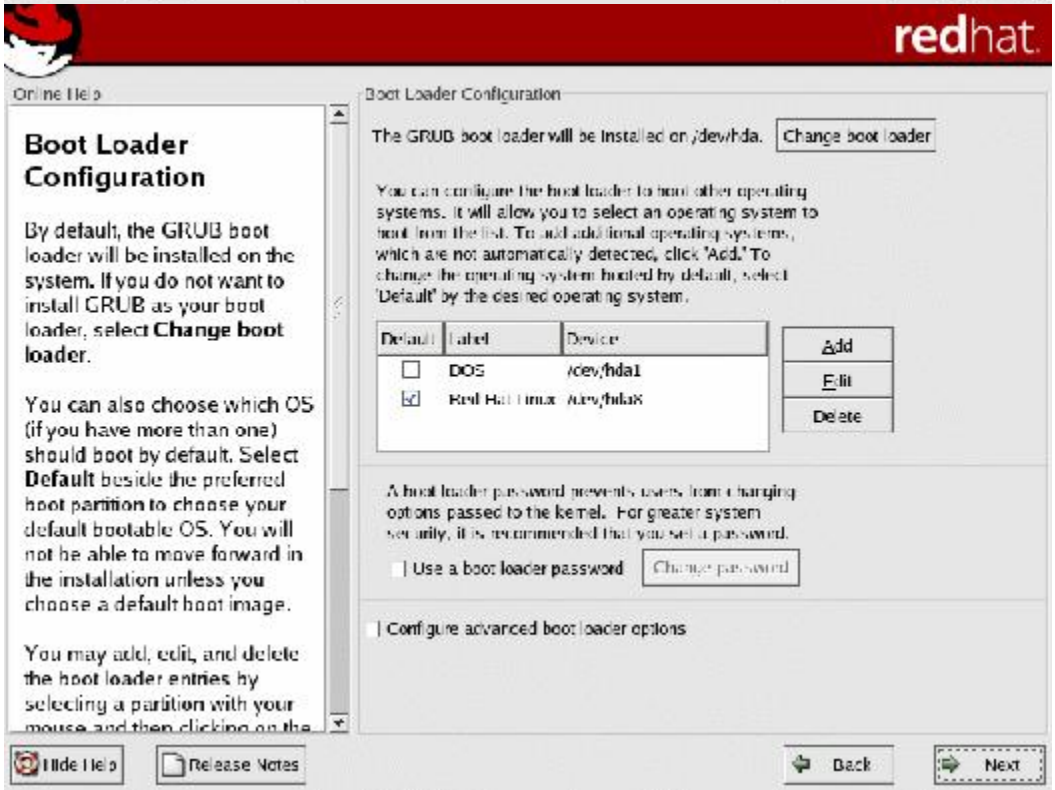
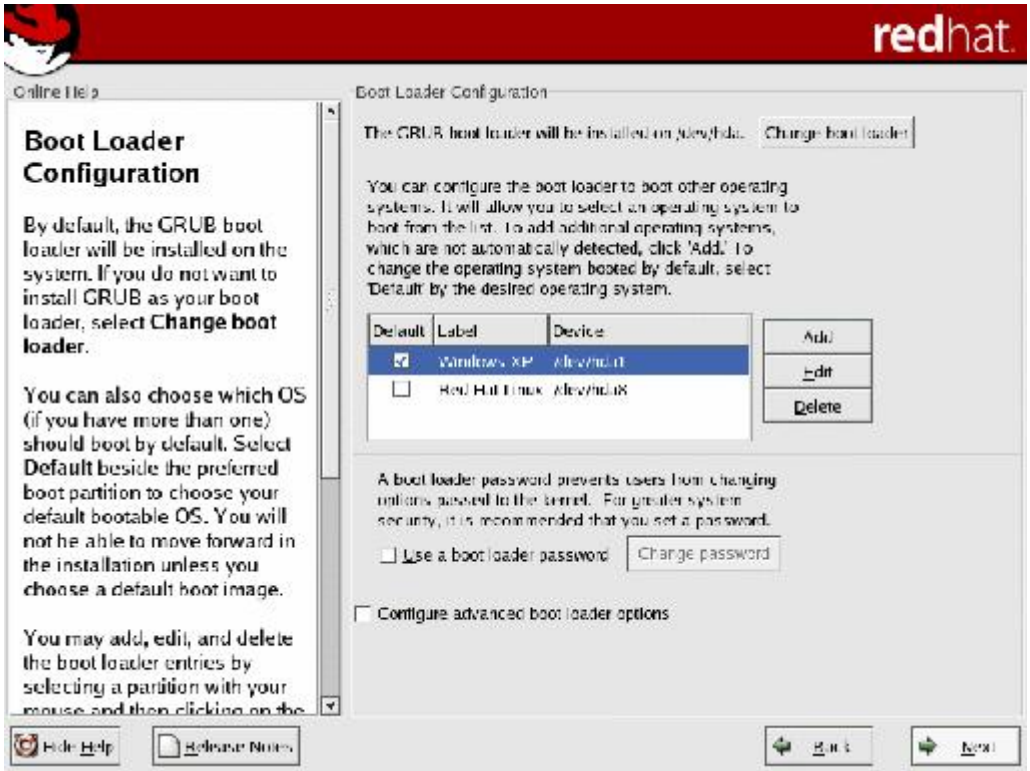
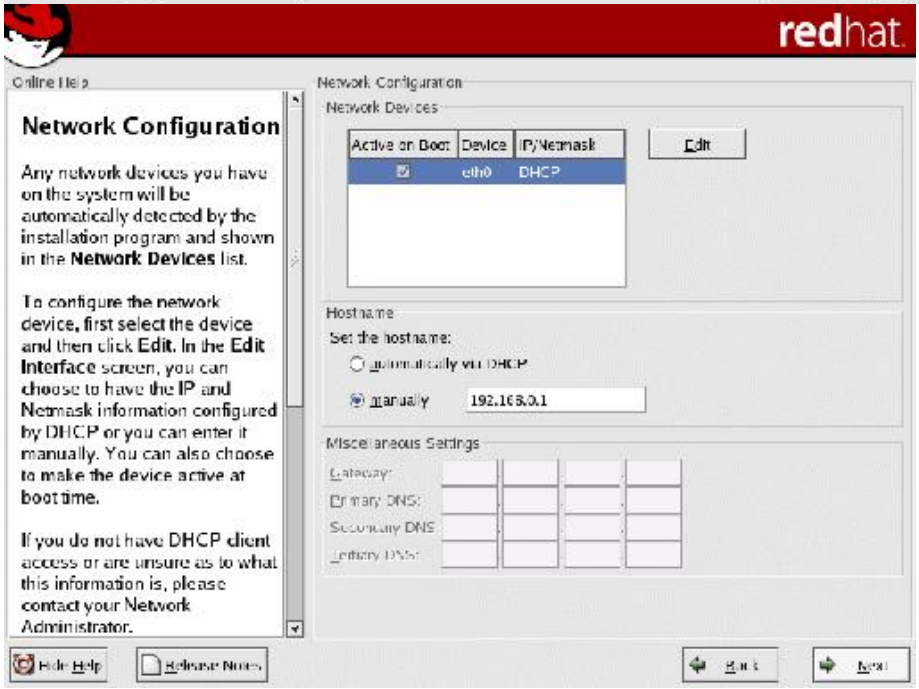
Online Help
Disk Partitioning Setup
Disk Partitioning Setup
One of the largest obstacles for a new user during a Linux installation is partitioning. Red Hat Linux makes this process easier by providing automatic partitioning.
By selecting automatic partitioning, you will not have to use partitioning tools to assign mount points, create partitions, or allocate space for your installation.
To partition manually, choose the Disk Druid partitioning tool.
Use the Back button to choose a different installation, or choose Next if you want to proceed with this installation.
Automatic Partitioning sets partitions based on the selected installation type. You also can customize the partitions once they have been created.
The manual disk partitioning tool, Disk Druid, allows you to create partitions in an interactive environment. You can set the file system types, mount points, partition sizes, and more.
Automatically partition
Manually partition with Disk Druid
Hide Help
Release Notes
Back
Next

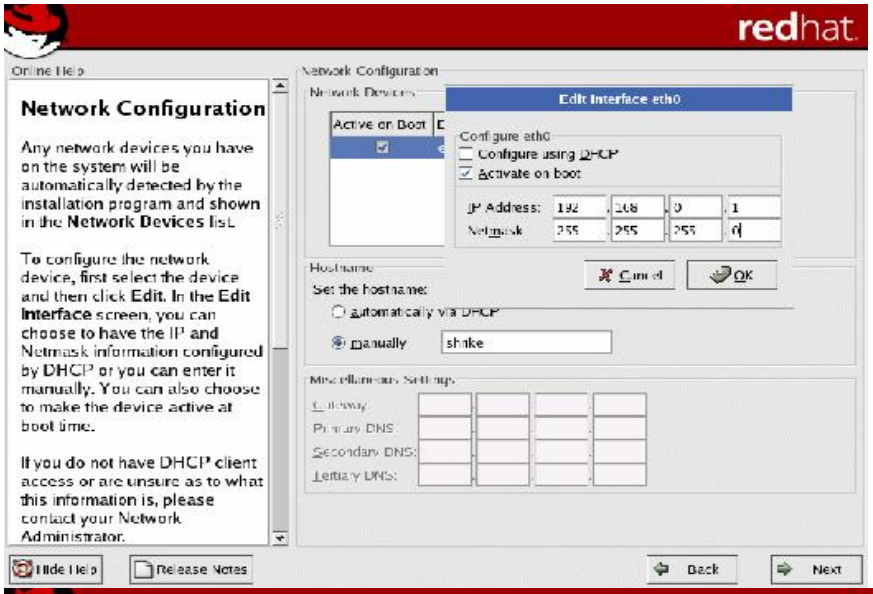

redhat.
Online Help
Automatic Partitioning
Automatic Partitioning
Automatic partitioning allows you to have some control concerning what data is removed (if any) from your system.
To remove only Linux partitions (partitions created from a previous Linux installation), select Remove all Linux partitions on this system.
To remove all partitions on your hard drive(s) (this includes partitions created by other operating systems such as Windows 95/98/NT/2000), select Remove all partitions on this system.
To retain your current data and partitions, assuming you have
Before automatic partitioning can be set up by the installation program, you must choose how to use the space on your hard drives.
I want to have automatic partitioning:
Remove all Linux Partitions on this system
Remove all partitions on this system
Keep all partitions and use existing free space
Select the drive(s) to use for this installation.
hda 57239 MB ST360021A
hdb 114440 MB WDC WD1200JB-75CRA0
Review (and modify if needed) the partitions created
Hide Help
Release Notes
Back
Next

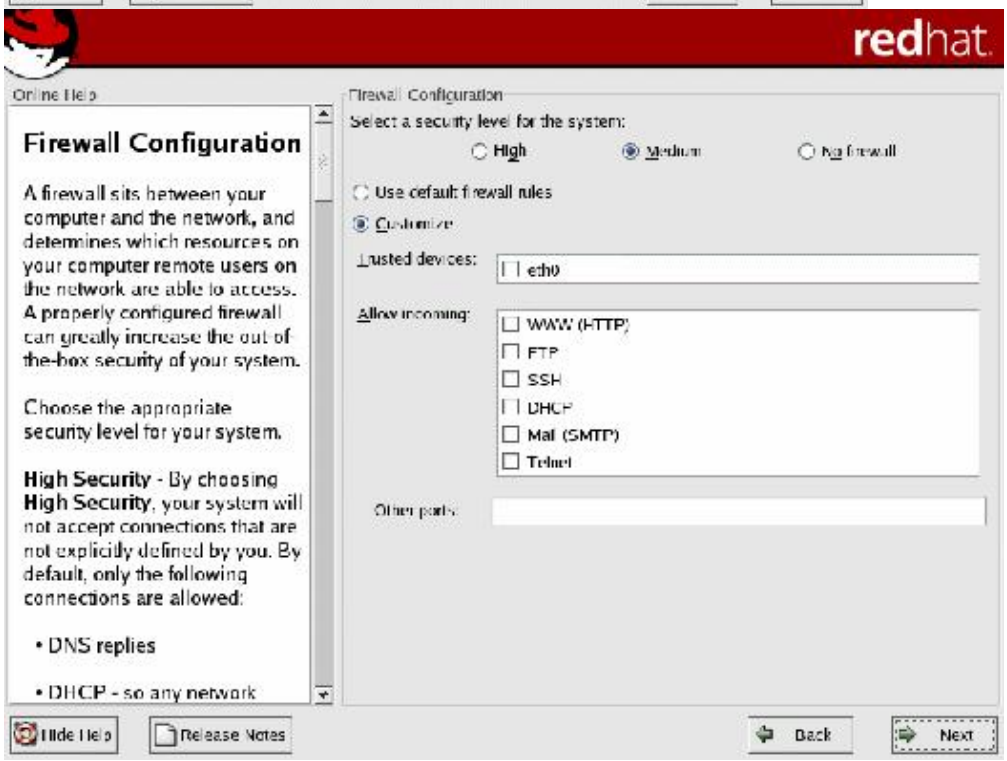

redhat
Online Help
Disk Setup
Choose where you would like Red Hat Linux to be installed.
If you do not know how to partition your system or if you need help with using the manual partitioning tools, refer to the Red Hat Linux Installation Guide.
If you used automatic partitioning, you can either accept the current partition settings (click Next), or modify the setup using the manual partitioning tool.
If you are manually partitioning your system, you will see your current hard drive(s) and partitions displayed below. Use the partitioning tool to add, edit,
Partitioning
Drive /dev/hda (Geom: 7297/255/63) (Model: ST360021A)
Drive /dev/hdb (Geom: 14589/255/63) (Model: WDC WD1200 JB-75CRA0)
New
Edit
Delete
Reset
RAID
LVM
Device
Mount Point/ RAID/Volume
Type
Format
Size (MB)
Start
End
Hard Drives
/dev/hda
/dev/hda2
Extended
47238
1275
7297
/dev/hda5
/dev/hda6
/dev/hda7
/boot
ext3
102
5753
5765
/dev/hda8
/
ext3
/dev/hda9
swap
1020
7166
7297
Hide RAID device/LVM Volume Group members
Hide Help
Release Notes
Back
Next

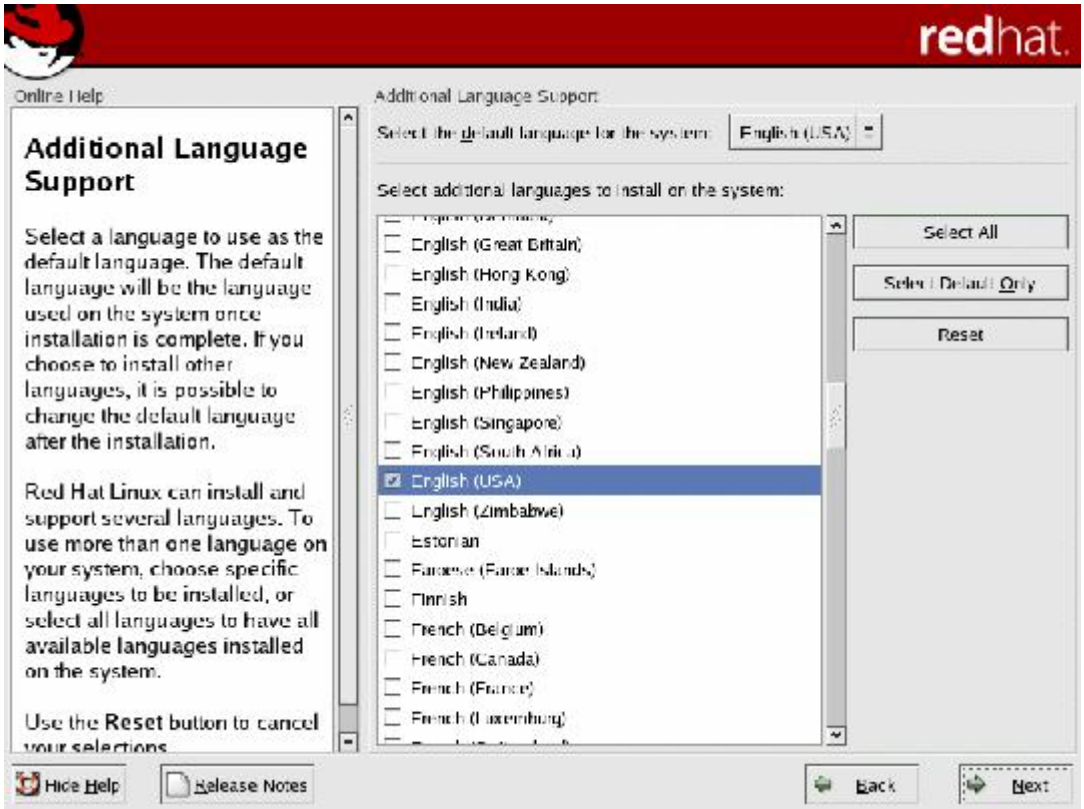

redhat
Online Help
Boot Loader Configuration
By default, the GRUB boot loader will be installed on the system. If you do not want to install GRUB as your boot loader, select Change boot loader.
You can also choose which OS (if you have more than one) should boot by default. Select Default beside the preferred boot partition to choose your default bootable OS. You will not be able to move forward in the installation unless you choose a default boot image.
Boot Loader Configuration
The GRUB boot loader will be installed on /dev/hda.
Change boot loader
Default
Label
Device
DOS
/dev/hda1
Add
Edit
Delete
Use a boot loader password
Change password
Configure advanced boot loader options
Hide Help
Release Notes
Back
Next


redhat
Online Help
Boot Loader Configuration
By default, the GRUB boot loader will be installed on the system. If you do not want to install GRUB as your boot loader, select Change boot loader.
You can also choose which OS (if you have more than one) should boot by default. Select Default beside the preferred boot partition to choose your default bootable OS. You will not be able to move forward in the installation unless you choose a default boot image.
You may add, edit, and delete the boot loader entries by selecting a partition with your
Boot Loader Configuration
Change boot loader
Default
Label
Device
Add
Edit
Delete
Use a boot loader password
Change password
Configure advanced boot loader options
Hide Help
Release Notes
Next


redhat
Online Help
Network Configuration
Any network devices you have on the system will be automatically detected by the installation program and shown in the Network Devices list.
To configure the network device, first select the device and then click Edit. In the Edit Interface screen, you can choose to have the IP and Netmask information configured by DHCP or you can enter it manually. You can also choose to make the device active at boot time.
If you do not have DHCP client access or are unsure as to what this information is, please contact your Network Administrator.
Network Configuration
Network Devices
Active on Boot
Device
IP/Netmask
eth0
DHCP
Edit
Hostname
Set the hostname:
manually
192.168.0.1
Miscellaneous Settings
Gateway
Primary DNS
Secondary DNS
Hide Help
Release Notes
Next


redhat
Online Help
Network Configuration
Network Configuration
Any network devices you have on the system will be automatically detected by the installation program and shown in the Network Devices list.
To configure the network device, first select the device and then click Edit. In the Edit Interface screen, you can choose to have the IP and Netmask information configured by DHCP or you can enter it manually. You can also choose to make the device active at boot time.
If you do not have DHCP client access or are unsure as to what this information is, please contact your Network Administrator.
Edit Interface eth0
Active on Boot
Configure eth0
Configure using DHCP
Activate on boot
IP Address:
Netmask
Cancel
OK
Hostname
Set the hostname:
automatically via DHCP
manually
shake
Miscellaneous Settings
Gateway
Primary DNS:
Secondary DNS:
Tertiary DNS:
Hide Help
Release Notes
Back
Next


redhat
Online Help
Firewall Configuration
Firewall Configuration
A firewall sits between your computer and the network, and determines which resources on your computer remote users on the network are able to access. A properly configured firewall can greatly increase the out of the-box security of your system.
Choose the appropriate security level for your system.
High Security - By choosing High Security, your system will not accept connections that are not explicitly defined by you. By default, only the following connections are allowed:
• DNS replies
• DHCP - so any network
Select a security level for the system:
High
Medium
No firewall
Use default firewall rules
Customize
Trusted devices:
eth0
Allow incoming:
WWW (HTTP)
FTP
SSH
DHCP
Mail (SMTP)
Telnet
Other ports:
Hide Help
Release Notes
Back
Next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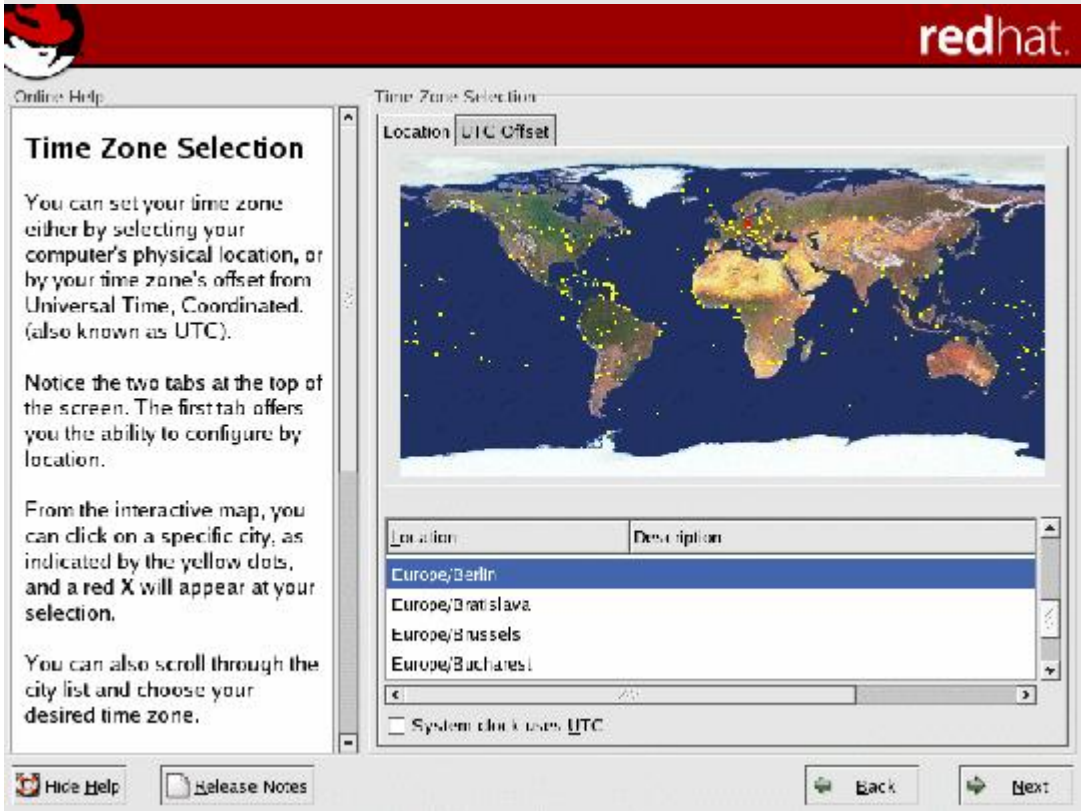
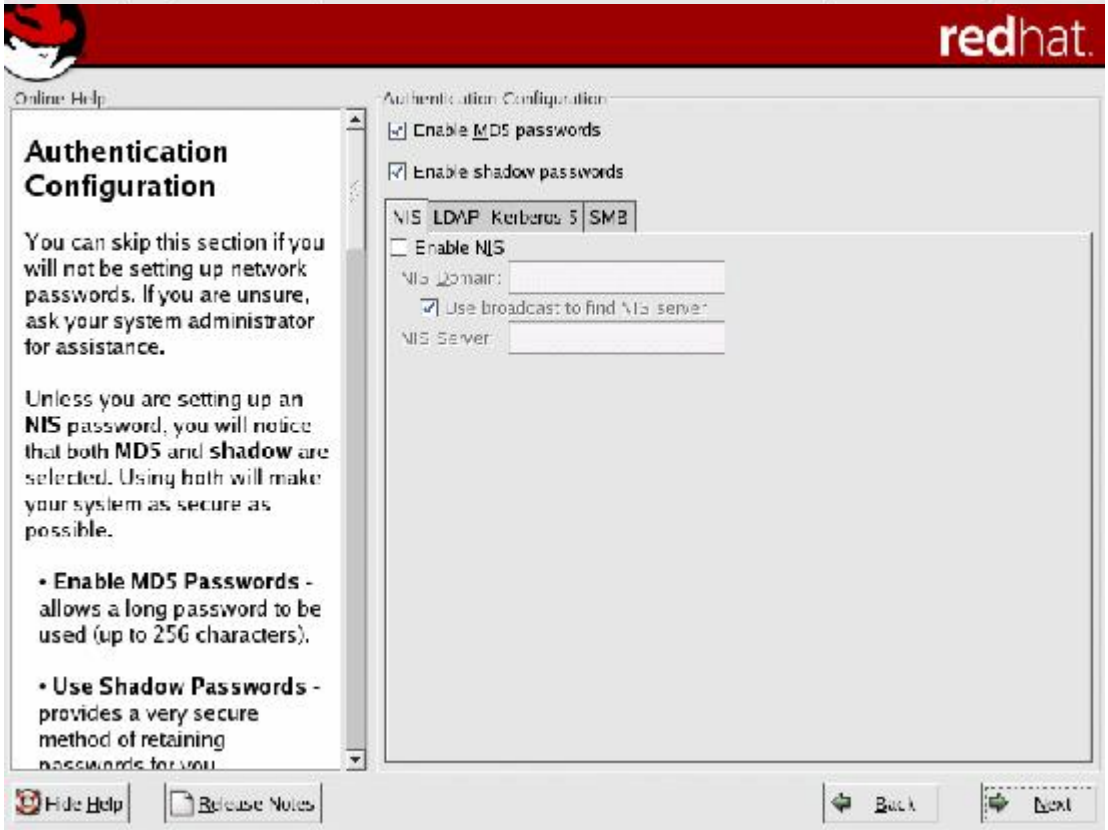
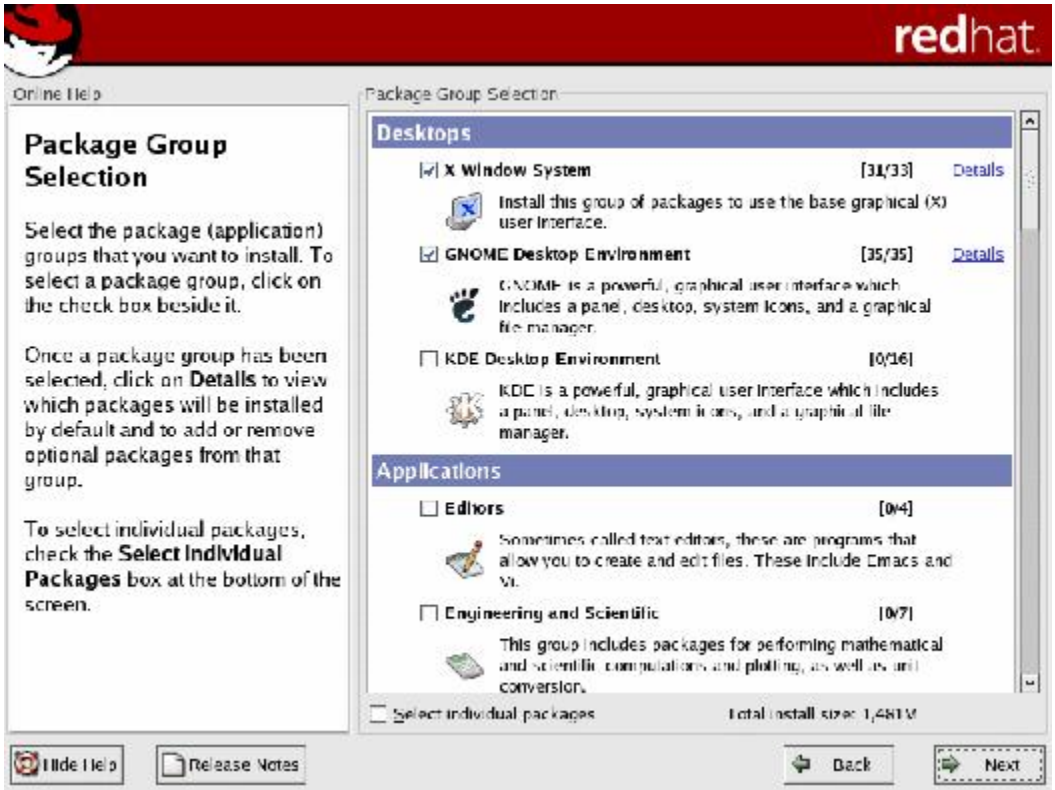
Online Help
Additional Language Support
Select the default language for the system:
English (USA)
Select additional languages to install on the system:
English (Great Britain)
English (Hong Kong)
English (India)
English (Ireland)
English (New Zealand)
English (Philippines)
English (Singapore)
English (South Africa)
English (USA)
English (Zimbabwe)
Estonian
Finnish
French (Belgium)
French (Canada)
French (France)
Select All
Select Default Only
Reset
Hide Help
Release Notes
Back
Next
Additional Language Support
Select a language to use as the default language. The default language will be the language used on the system once installation is complete. If you choose to install other languages, it is possible to change the default language after the installation.
Red Hat Linux can install and support several languages. To use more than one language on your system, choose specific languages to be installed, or select all languages to have all available languages installed on the system.
Use the Reset button to cancel your selections.


redhat.
Online Help
Time Zone Selection
Location
UTC Offset
Description
Europe/Berlin
Europe/Bratislava
Europe/Brussels
Europe/Bucharest
System clock uses UTC
Hide Help
Release Notes
Back
Next
Time Zone Selection
You can set your time zone either by selecting your computer's physical location, or by your time zone's offset from Universal Time, Coordinated. (also known as UTC).
Notice the two tabs at the top of the screen. The first tab offers you the ability to configure by location.
From the interactive map, you can click on a specific city, as indicated by the yellow dots, and a red X will appear at your selection.
You can also scroll through the city list and choose your desired time zone.

redhat.
Online Help
Set Root Password
Use the root account *only* for administration. Once the installation has been completed, create a non-root account for your general use and su - to gain root access when you need to fix something quickly. These basic rules will minimize the chances of a typo or incorrect command doing damage to your system.
Set Root Password
Enter the root (administrator) password for the system.
Root Password:
Confirm:
Hide Help
Release Notes
Back
Next


redhat.
Online Help
Authentication Configuration
You can skip this section if you will not be setting up network passwords. If you are unsure, ask your system administrator for assistance.
Unless you are setting up an **NIS** password, you will notice that both **MD5** and **shadow** are selected. Using both will make your system as secure as possible.
• **Enable MD5 Passwords** - allows a long password to be used (up to 256 characters).
• **Use Shadow Passwords** - provides a very secure method of retaining
Authentication Configuration
Enable MD5 passwords
Enable shadow passwords
NIS
LDAP
Kerberos 5
SMB
Enable NIS
NIS Domain:
Use broadcast to find NIS server
NIS Server:
Hide Help
Release Notes
Back
Next


redhat
Online Help
Package Group Selection
Package Group Selection
Select the package (application) groups that you want to install. To select a package group, click on the check box beside it.
Once a package group has been selected, click on Details to view which packages will be installed by default and to add or remove optional packages from that group.
To select individual packages, check the Select Individual Packages box at the bottom of the screen.
Desktops
X Window System [31/33] Details
Install this group of packages to use the base graphical (X) user interface.
GNOME Desktop Environment [35/35] Details
GNOME is a powerful, graphical user interface which includes a panel, desktop, system icons, and a graphical file manager.
KDE Desktop Environment [0/16]
KDE is a powerful, graphical user interface which includes a panel, desktop, system icons, and a graphical file manager.
Applications
Editors [0/4]
Sometimes called text editors, these are programs that allow you to create and edit files. These include Emacs and Vi.
Engineering and Scientific [0/7]
This group includes packages for performing mathematical and scientific computations and plotting, as well as unit conversion.
Select individual packages
Total install size: 1,481M
Hide Help
Release Notes
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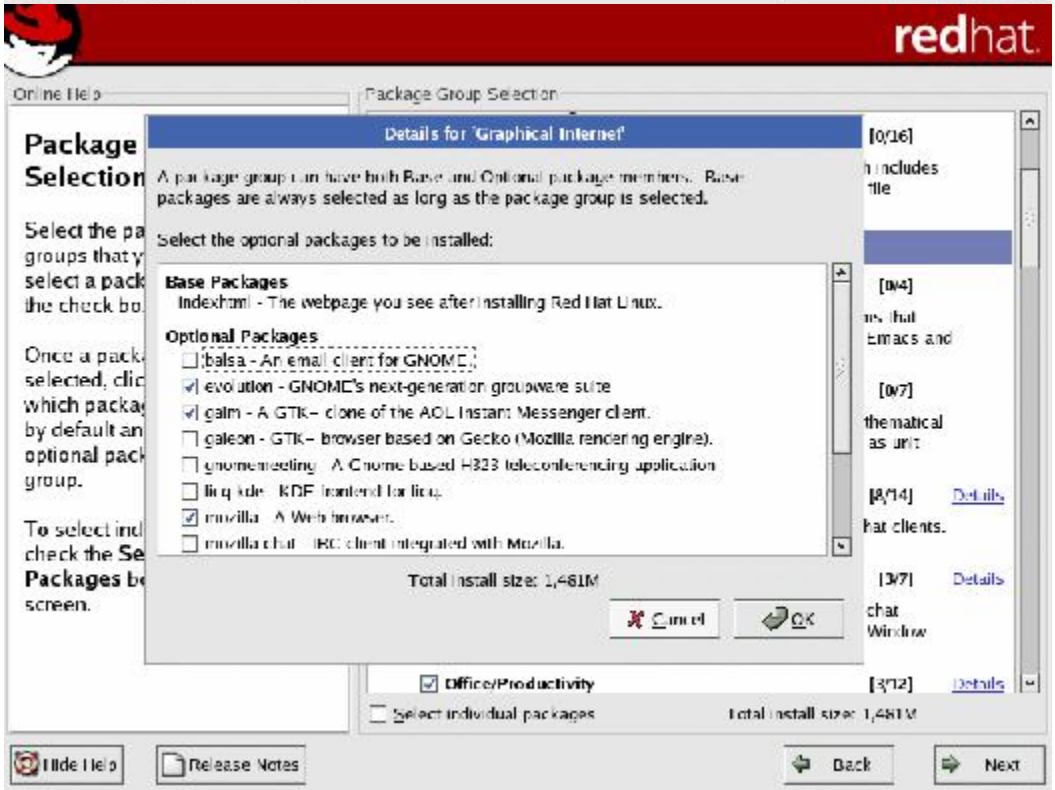
Next


redhat
Online Help
Package Group Selection
Details for 'Graphical Internet'
A package group can have both Base and Optional package members. Base packages are always selected as long as the package group is selected.
Select the optional packages to be installed:
Base Packages
Indexhtml - The webpage you see after installing Red Hat Linux.
Optional Packages
balsa - An email client for GNOME.
evolution - GNOME's next-generation groupware suite
gaim - A GTK+ clone of the AOL Instant Messenger client.
galeon - GTK+ browser based on Gecko (Mozilla rendering engine).
gnomemeeting - A Gnome based H323 teleconferencing application
kde - KDE frontend for lilo.
mozilla - A Web browser.
mozilla-chat - IRC client integrated with Mozilla.
Total install size: 1,481M
Cancel
OK
Office/Productivity [3/12] Details
Select individual packages
Total install size: 1,481M
Hide Help
Release Notes
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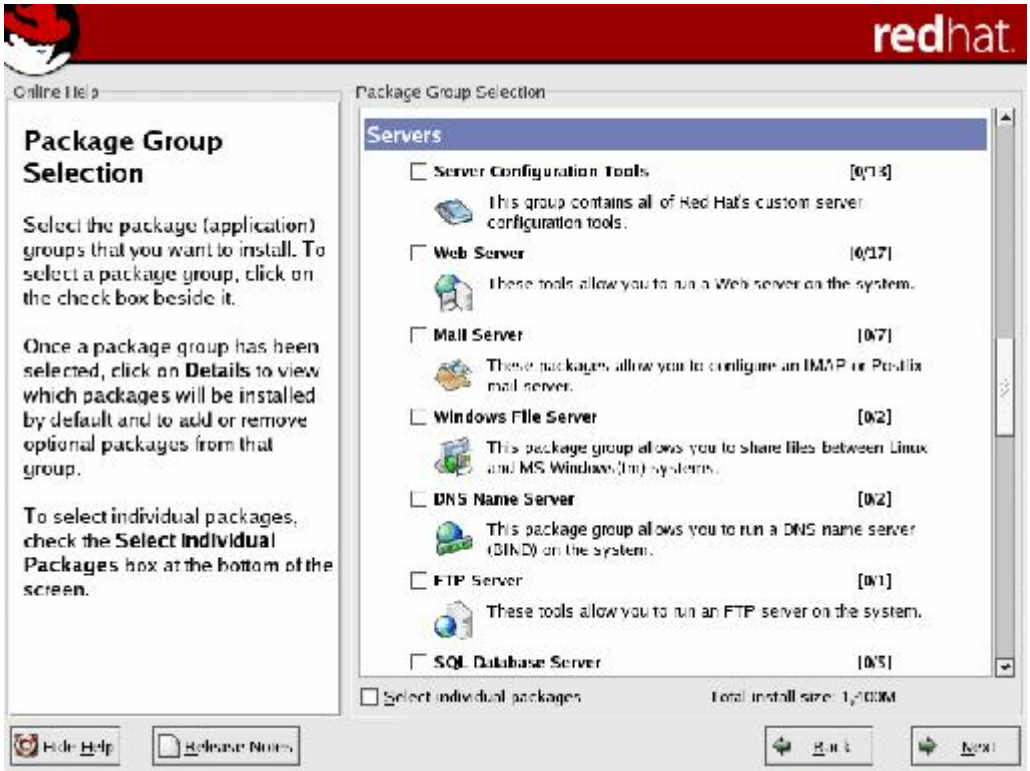
redhat
Online Help
Package Group Selection
Package Group Selection
Select the package (application) groups that you want to install. To select a package group, click on the check box beside it.
Once a package group has been selected, click on Details to view which packages will be installed by default and to add or remove optional packages from that group.
To select individual packages, check the Select Individual Packages box at the bottom of the screen.
Servers
Server Configuration Tools [0/13]
This group contains all of Red Hat's custom server configuration tools.
Web Server [0/17]
These tools allow you to run a Web server on the system.
Mail Server [0/7]
These packages allow you to configure an IMAP or Postfix mail server.
Windows File Server [0/2]
This package group allows you to share files between Linux and MS Windows(tm) systems.
DNS Name Server [0/2]
This package group allows you to run a DNS name server (BIND) on the system.
FTP Server [0/1]
These tools allow you to run an FTP server on the system.
SQL Database Server [0/5]
Select individual packages
Total install size: 1,400M
Hide Help
Release Notes
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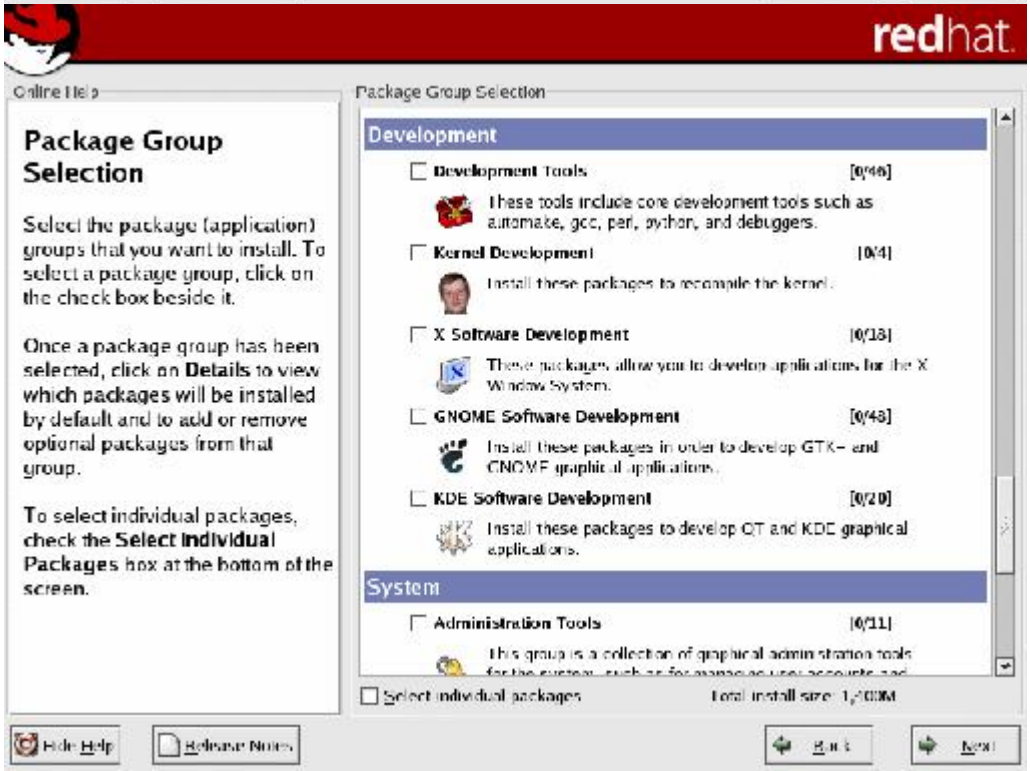
Next


redhat
Online Help
Package Group Selection
Package Group Selection
Select the package (application) groups that you want to install. To select a package group, click on the check box beside it.
Once a package group has been selected, click on Details to view which packages will be installed by default and to add or remove optional packages from that group.
To select individual packages, check the Select Individual Packages box at the bottom of the screen.
Development
Development Tools [0/46]
These tools include core development tools such as automake, gcc, perl, python, and debuggers.
Kernel Development [0/4]
Install these packages to recompile the kernel.
X Software Development [0/18]
These packages allow you to develop applications for the X Window System.
GNOME Software Development [0/48]
Install these packages in order to develop GTK+ and GNOME graphical applications.
KDE Software Development [0/20]
Install these packages to develop QT and KDE graphical applications.
System
Administration Tools [0/11]
Select individual packages
Total install size: 1,400M
Hide Help
Release Notes
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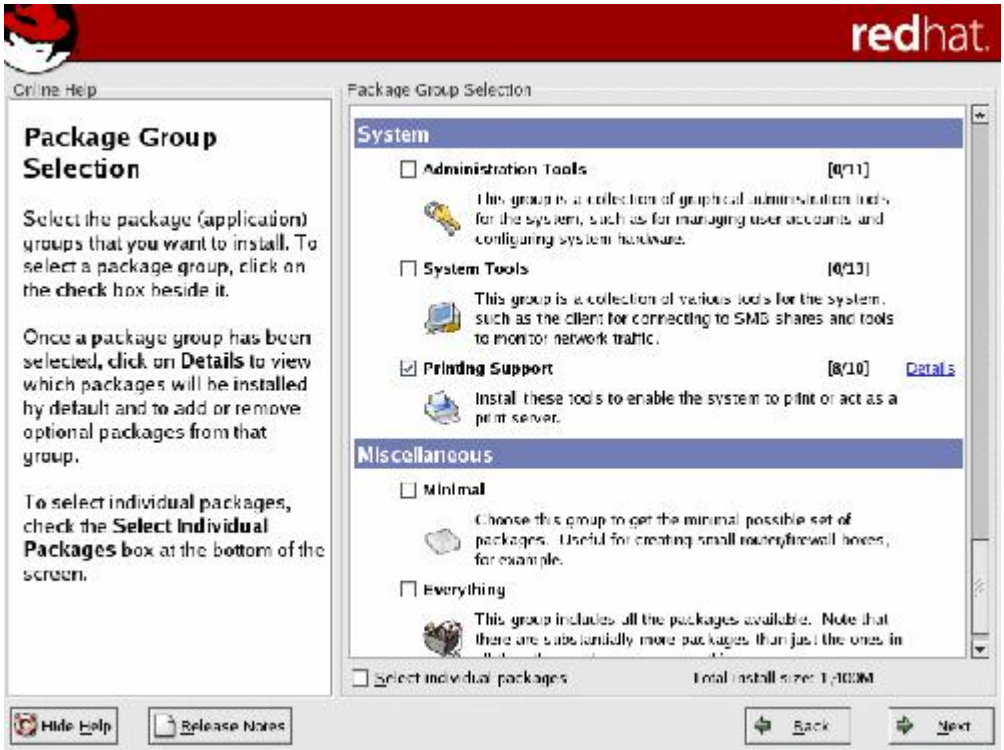
redhat.
Online Help
Package Group Selection
Package Group Selection
Select the package (application) groups that you want to install. To select a package group, click on the check box beside it.
Once a package group has been selected, click on Details to view which packages will be installed by default and to add or remove optional packages from that group.
To select individual packages, check the Select Individual Packages box at the bottom of the screen.
System
Administration Tools [0/11]
System Tools [0/13]
This group is a collection of various tools for the system, such as the client for connecting to SMB shares and tools to monitor network traffic.
Printing Support [8/10] Details
Install these tools to enable the system to print or act as a print server.
Miscellaneous
Minimal
Everything
Select individual packages
Hide Help
Release Notes
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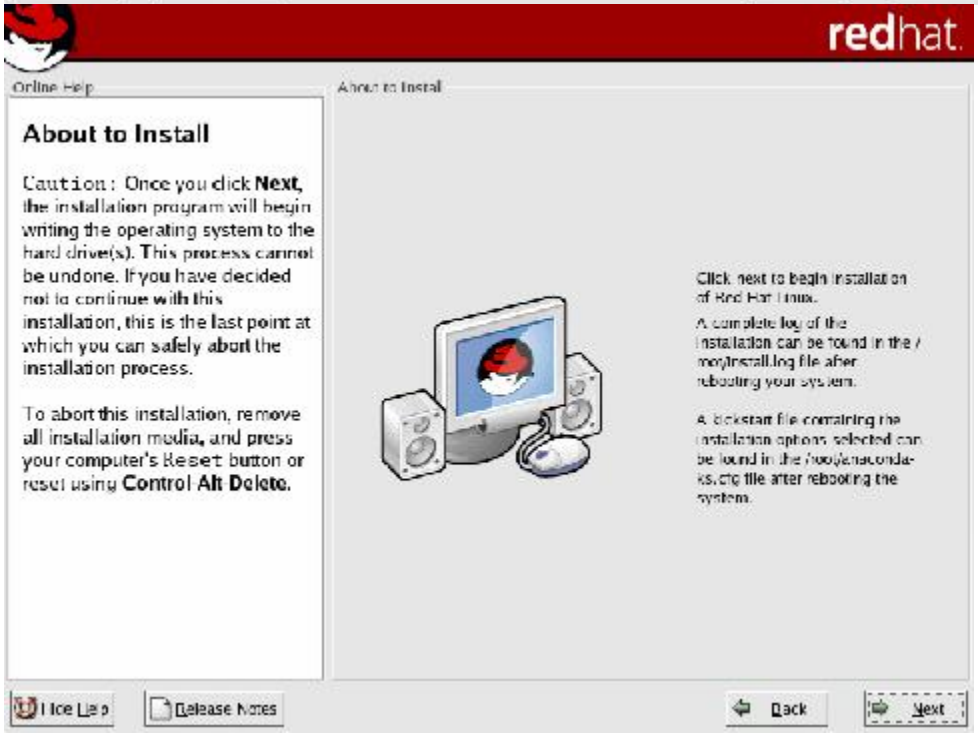
Next


redhat.
Online Help
About to Install
About to Install
Caution: Once you click Next, the installation program will begin writing the operating system to the hard drive(s). This process cannot be undone. If you have decided not to continue with this installation, this is the last point at which you can safely abort the installation process.
To abort this installation, remove all installation media, and press your computer's Reset button or reset using Control Alt Delete.
Click next to begin installation of Red Hat Linux.
A complete log of the installation can be found in the /root/install.log file after rebooting your system.
A kickstart file containing the installation options selected can be found in the /root/anaconda-ks.cfg file after rebooting the system.
Release Notes
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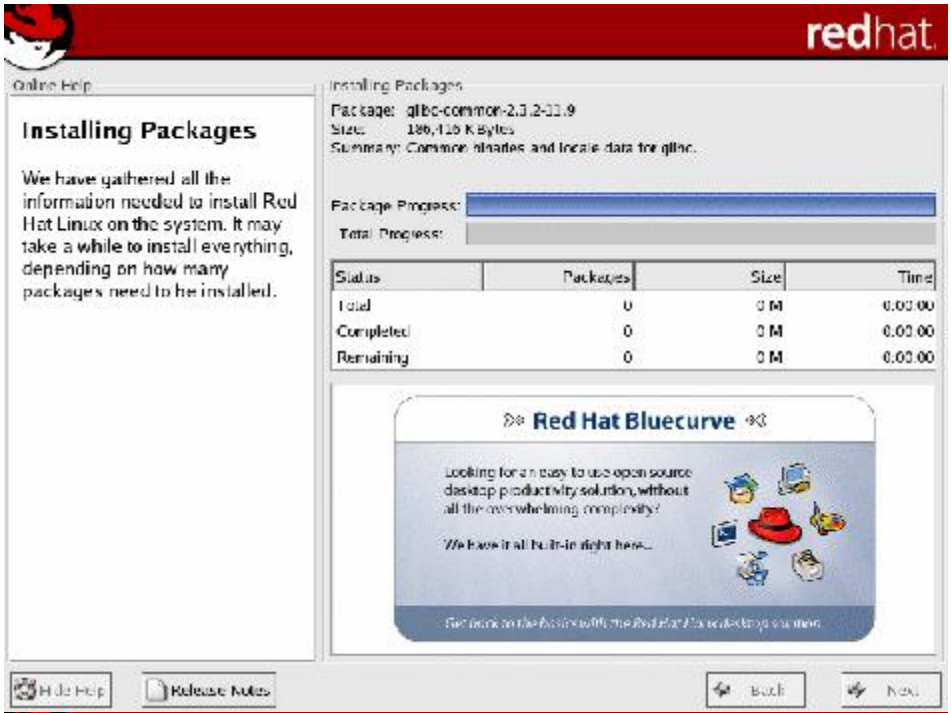
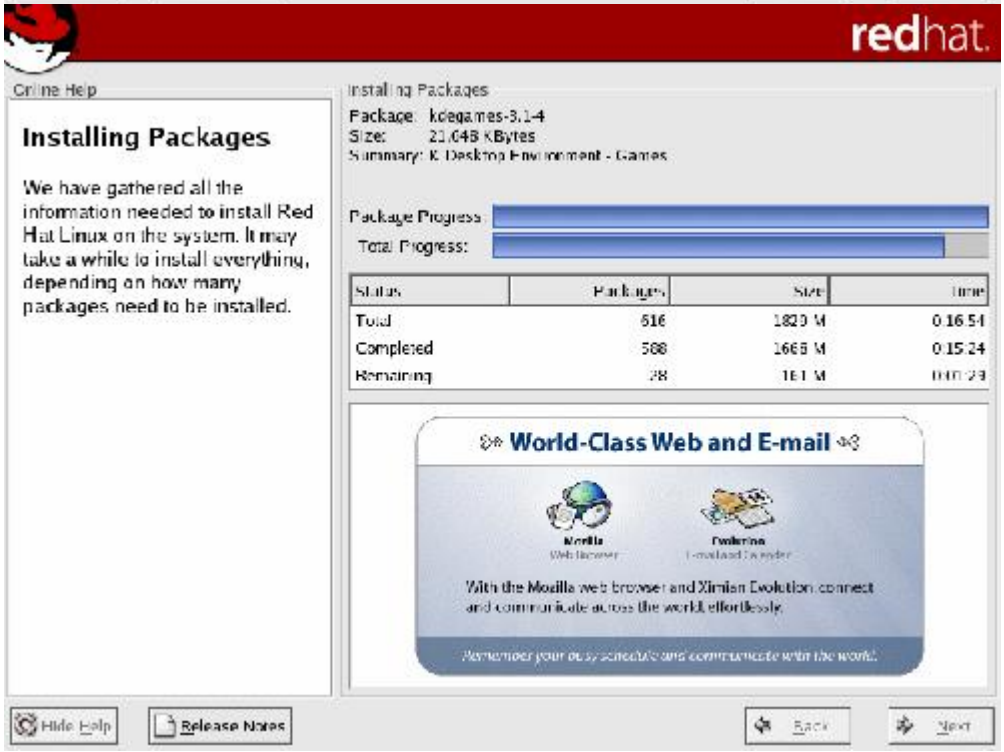
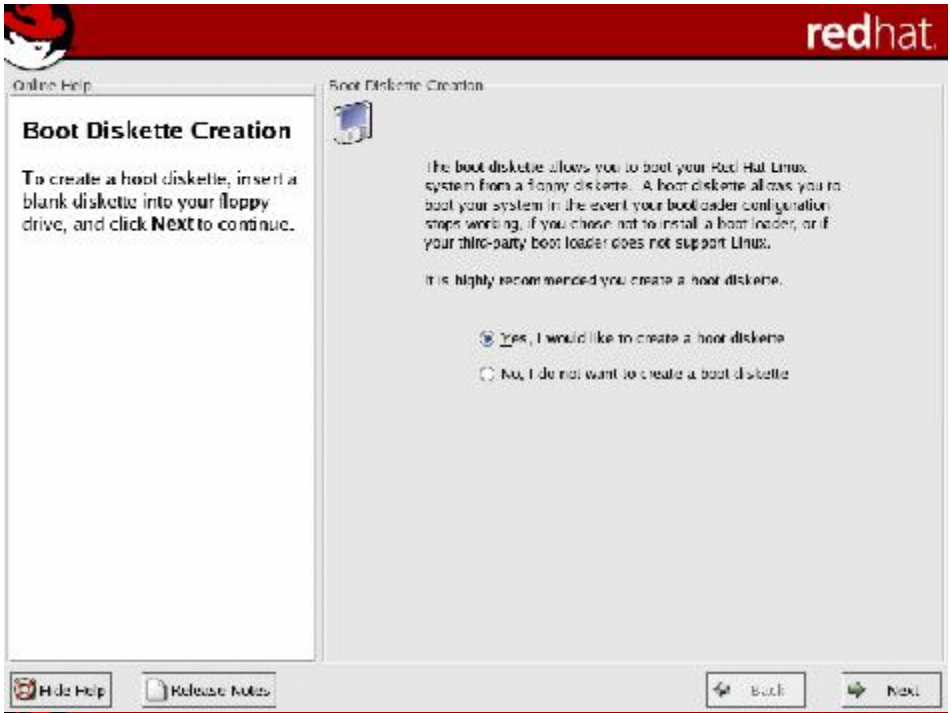
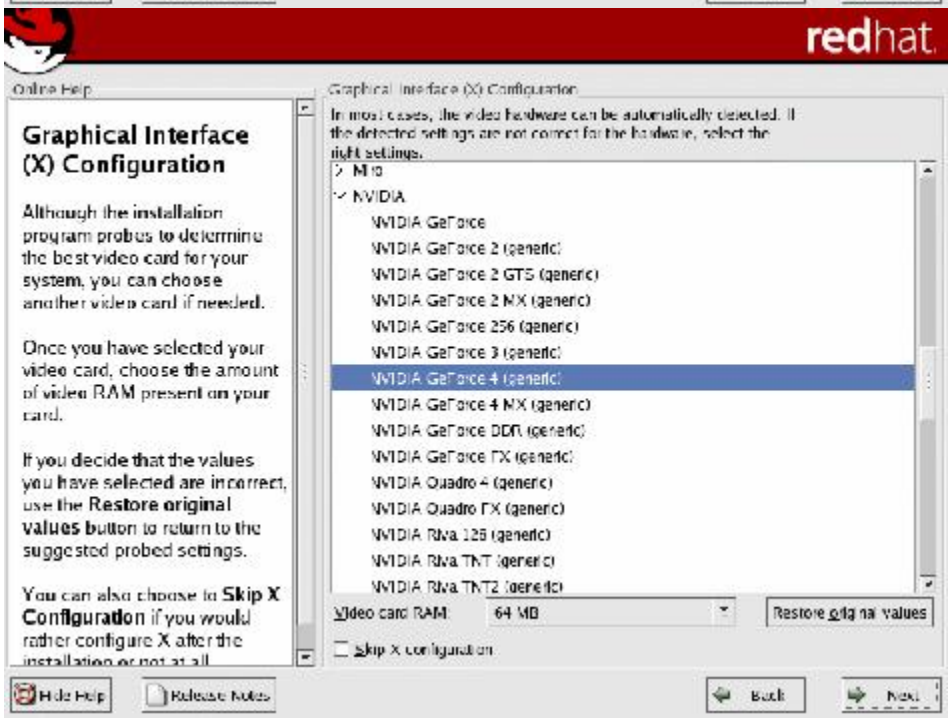

redhat
Online Help
Installing Packages
We have gathered all the information needed to install Red Hat Linux on the system. It may take a while to install everything, depending on how many packages need to be installed.
Installing Packages
Package: glibc-common-2.3.2-11.9
Size: 186,416 KBytes
Summary: Common binaries and locale data for glibc.
Package Progress:
Total Progress:
Status | Packages | Size | Time
Total | 0 | 0 M | 0:00:00
Completed | 0 | 0 M | 0:00:00
Remaining | 0 | 0 M | 0:00:00
Red Hat Bluecurve
Looking for an easy to use open source desktop productivity solution, without all the overwhelming complexity?
We have it all built-in right here...
Hide Help
Release Notes
Back
Next

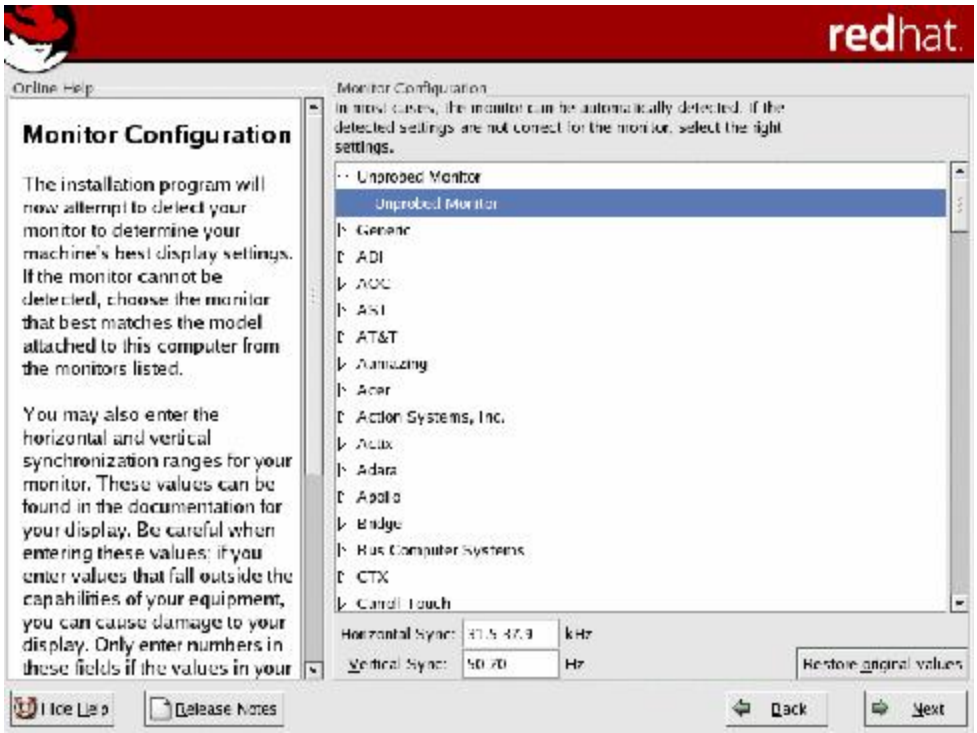
redhat
Online Help
Installing Packages
We have gathered all the information needed to install Red Hat Linux on the system. It may take a while to install everything, depending on how many packages need to be installed.
Installing Packages
Package: qt-3.1.1-6
Size: 10,516 KBytes
Summary: The shared library for the Qt GUI toolkit.
Package Progress:
Total Progress:
Status | Packages | Size | Time
Total | 616 | 1929 M | 0:15:58
Completed | 422 | 989 M | 0:08:38
Remaining | 194 | 940 M | 0:07:19
Thank You!
Red Hat would like to take this final screen to say Thank You to all the developers, designers, and engineers in the community that made this release possible. We couldn't, and wouldn't, do it without you.
Hide Help
Release Notes
Back
Next

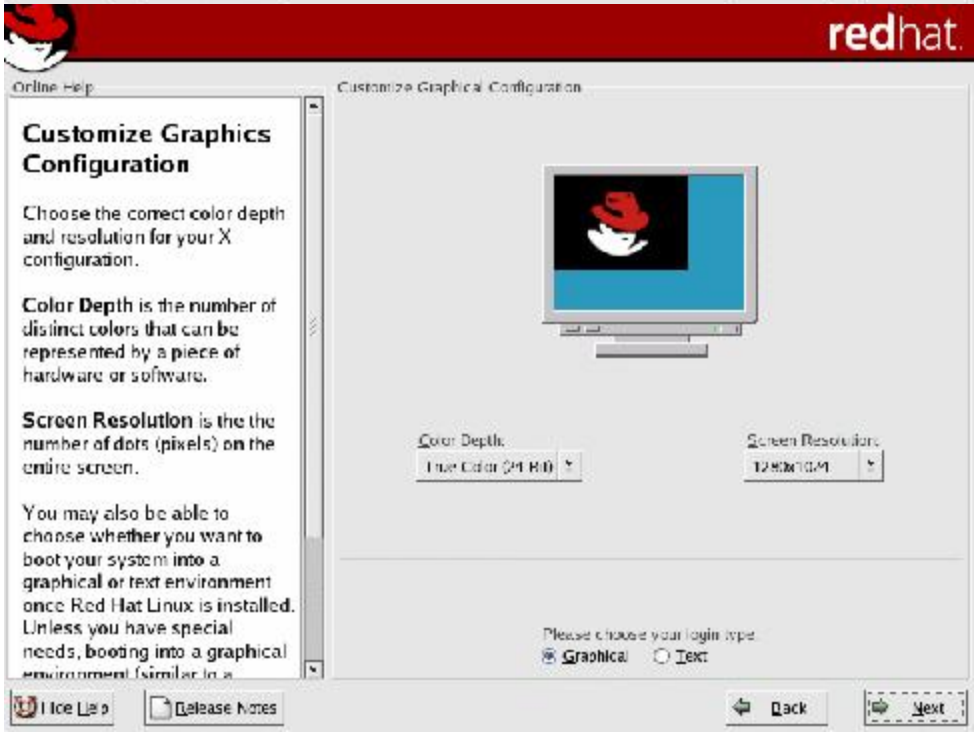
redhat.
Online Help
Installing Packages
We have gathered all the information needed to install Red Hat Linux on the system. It may take a while to install everything, depending on how many packages need to be installed.
Installing Packages
Package: db4-devel-4.0.14-20
Size: 7,752 KBytes
Summary: Development files for the Berkeley DB (version 4) library.
Package Progress:
Total Progress:
Status | Packages | Size | Time
Total | 616 | 1820 M | 0:17:22
Completed | 508 | 1249 M | 0:11:52
Remaining | 108 | 580 M | 0:06:40
All-In-One Office Suite
Share your ideas with everyone!
OpenOffice.org's spreadsheet, word processor, and presentation software make it possible.
Hide Help
Release Notes
Back
Next

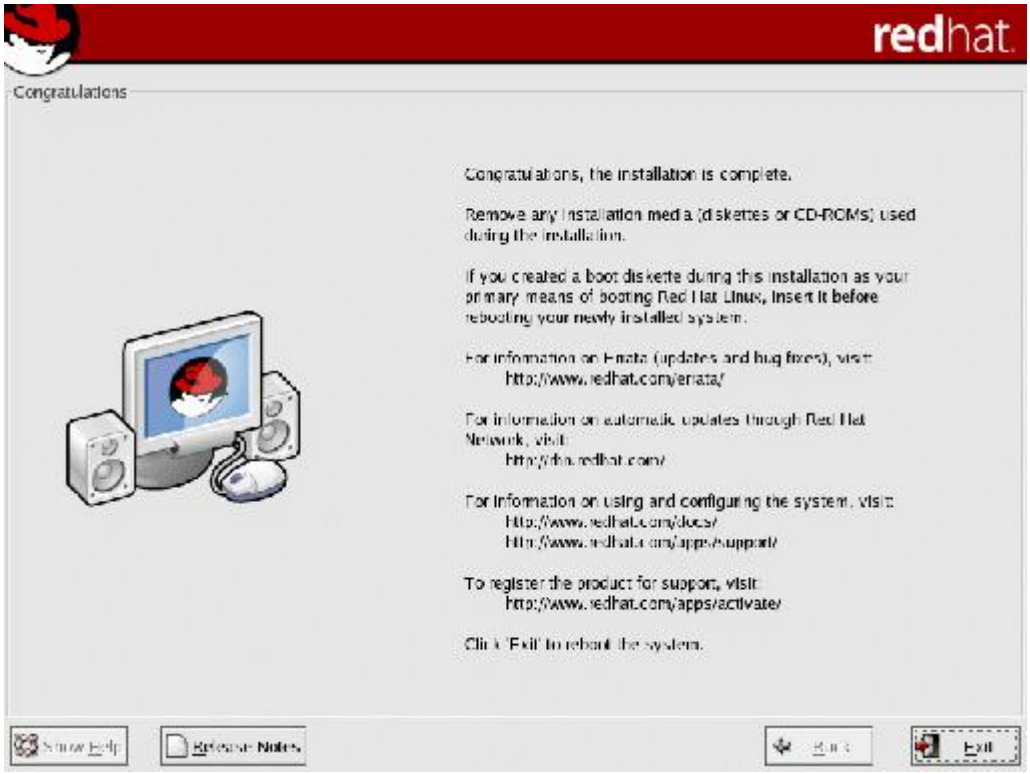

redhat.
Online Help
Installing Packages
We have gathered all the information needed to install Red Hat Linux on the system. It may take a while to install everything, depending on how many packages need to be installed.
Installing Packages
Package: kdegames-3.1-4
Size: 21,048 KBytes
Summary: K Desktop Environment - Games
Package Progress:
Total Progress:
Status | Packages | Size | Time
Total | 616 | 1820 M | 0:16:54
Completed | 588 | 1668 M | 0:15:24
Remaining | 28 | 151 M | 0:01:29
World-Class Web and E-mail
Mozilla
Web browser
Evolution
E-mail and Calendar
With the Mozilla web browser and Ximian Evolution, connect and communicate across the world effortlessly.
Remember your busy schedule and communicate with the world.
Hide Help
Release Notes
Back
Next


redhat
Online Help
Boot Diskette Creation
Boot Diskette Creation
To create a boot diskette, insert a blank diskette into your floppy drive, and click Next to continue.
The boot diskette allows you to boot your Red Hat Linux system from a floppy diskette. A boot diskette allows you to boot your system in the event your bootloader configuration stops working, if you chose not to install a bootloader, or if your third-party boot loader does not support Linux.
It is highly recommended you create a boot diskette.
Yes, I would like to create a boot diskette
No, I do not want to create a boot diskette
Hide Help
Release Notes
Back
Next


redhat
Online Help
Graphical Interface (X) Configuration
Graphical Interface (X) Configuration
Although the installation program probes to determine the best video card for your system, you can choose another video card if needed.
Once you have selected your video card, choose the amount of video RAM present on your card.
If you decide that the values you have selected are incorrect, use the Restore original values button to return to the suggested probed settings.
You can also choose to Skip X Configuration if you would rather configure X after the installation or not at all.
In most cases, the video hardware can be automatically detected. If the detected settings are not correct for the hardware, select the right settings.
Mga
NVIDIA
NVIDIA GeForce
NVIDIA GeForce 2 (generic)
NVIDIA GeForce 2 GTS (generic)
NVIDIA GeForce 2 MX (generic)
NVIDIA GeForce 256 (generic)
NVIDIA GeForce 3 (generic)
NVIDIA GeForce 4 (generic)
NVIDIA GeForce 4 MX (generic)
NVIDIA GeForce DDR (generic)
NVIDIA GeForce FX (generic)
NVIDIA Quadro 4 (generic)
NVIDIA Quadro FX (generic)
NVIDIA Riva 128 (generic)
NVIDIA Riva TNT (generic)
NVIDIA Riva TNT2 (generic)
Video card RAM:
64 MB
Restore original values
Skip X configuration
Hide Help
Release Notes
Back
Next


redhat
Online Help
Monitor Configuration
Monitor Configuration
The installation program will now attempt to detect your monitor to determine your machine's best display settings. If the monitor cannot be detected, choose the monitor that best matches the model attached to this computer from the monitors listed.
You may also enter the horizontal and vertical synchronization ranges for your monitor. These values can be found in the documentation for your display. Be careful when entering these values: if you enter values that fall outside the capabilities of your equipment, you can cause damage to your display. Only enter numbers in these fields if the values in your
Unprobed Monitor
Unprobed Monitor
Generic
ADI
AOC
AST
AT&T
Amazing
Acer
Action Systems, Inc.
Adara
Apollo
Bridge
Bus Computer Systems
CTX
Horizontal Sync:
kHz
Vertical Sync:
Hz
Restore original values
Release Notes
Back
Next


redhat
Online Help
Customize Graphical Configuration
Customize Graphics Configuration
Choose the correct color depth and resolution for your X configuration.
Color Depth is the number of distinct colors that can be represented by a piece of hardware or software.
Screen Resolution is the the number of dots (pixels) on the entire screen.
You may also be able to choose whether you want to boot your system into a graphical or text environment once Red Hat Linux is installed. Unless you have special needs, booting into a graphical
Color Depth:
Screen Resolution:
Please choose your login type:
Graphical
Text
Release Notes
Back
Next



Linux Bash Commands:

Basic Commands:

Before we start, here are some ground rules. Anything that is red means to type it, if you see brackets <option> it means you will have to make a decision (an option). Don't type the brackets < > for the option! Look for *italic words* for they will give a clue of what commands I'm talking about.

Login

The first time you login to Linux you will have to login as root

login:root

Then it will ask you for a password, and again to verify. Now you are in the root account.

What's the root account? Root is where the user has full access to everything on the system. Normally, the root account is only used when performing system administration tasks which includes shutting down.

d="4.2">

Exiting, restart, and shutdown

How to *shut down*
the Linux OS? Type the command

#shutdown -h now

If you which to *restart* the Linux OS then type

#reboot

If you want to *get out of the root account* then type

#exit

TASK5

Hardware Troubleshooting:

Basic troubleshooting:

Sometimes things do not work exactly as planned at this point. Sometimes the system will not power on at all. Sometimes it will power on, but you get no video. Sometimes you will get beep codes. Sometimes you hear the fans, but the rest of the PC just sits there and does nothing. If things didn't go according to plan, troubleshoot the system. Walk mentally through the boot process and check all hardware as it goes. Think like the computer thinks, if you know what I mean. Here is a list of some of the more common problems.

1. The power does not even turn on. This sometimes happens on ATX machines and it usually tracks down to the fact that the power switch is not properly connected to the motherboard or it is not connected at all. Find the power switch lead and make sure it is connected to the motherboard, as described in Step 11. It’s a possibility that simply reversing the lead will do the trick. If this is the not the case, then make sure the motherboard is not grounded somehow. Make sure that the board is not touching the case (this is what the spacers are for). Make sure that none of the screws that hold the board in place is touching anything metal or any of the electrical pathways on the motherboard. If you have any doubt on this, you can remove each screw one at a time and place a washer on them. You do not need to remove the motherboard to do this.

2. The PC boots, but it is giving beep codes. This is actually better than having to track everything down on your own, because at least the PC is giving you a hint as to what is wrong. You can also use the PC Mechanic Beep Codes E-book available on the PC Mechanic CD to track it down for other BIOS versions. Often, these beep codes will not tell you exactly what the problem is, but will point you at the trouble device. This information will then get you pointed in the correct direction.

3. The fans come on, but you get no video or beeps. Sometimes, this is because some key component may not be plugged in well or may not be operational. Check the memory modules and the processor to be sure they are firmly installed. You might want to make sure the processor is actually working. One way that I have used to see if a processor is working is to remove or unplug the CPU fan and place your fingers on the CPU to see if it heats up real fast. If it does, its OK and don’t let it run this way for long. If it remains at room temperature for awhile, then there is no juice going through the processor and it may need replacing. The keyboard doesn’t seem to work. This one doesn’t happen too often, but if it does, your two trouble sources will be the keyboard itself or the keyboard controller on the motherboard. Hope it isn’t the second one.

Software Troubleshooting:

BIOS SETUP & DISK FORMATTING
BIOS SETUP

What Is BIOS?

BIOS is an acronym for ***Basic Input Output System*.**

Why BIOS?

To run any system, there must be default settings so that the system can load those settings when it is started or restarted. For a computer system the basic I/O settings and boot process details are necessary to start a system.

All these default, predefined settings will be loaded in the BIOS and whenever we start the system, these settings will be loaded.

How to view BIOS?

Whenever we start the system, we can enter into the BIOS Setup Utility by pressing ***Del Key***. Sometimes an ***F1*** or ***F8*** key has to be instead of DEL key, depending on the type of BIOS.

When we enter in to this utility we get these following menus/services, depending upon our mother board.

In main Menu, we can view the details such as BIOS Version, Processor Type, and Speed, RAM Size and the system bus speed and memory speed.

We can change the settings like language system time and date. We can even change the hyper threading facility if the processor supports this technology.

We must be very careful when we change these settings otherwise it may cause our system to malfunction.

Here, we can change the settings of PCI devices, Floppy Drives configuration and chipset, USB peripheral devices and even monitoring the Hardware.

Security

We can set the supervisor password, to restrict unauthorized users to enter the BIOS setup utility.

User password can also be set to restrict the unauthorized persons to boot or use the system.

What is a Password?

How to type a Password?

We can even set the Chassis Intrusion to protect the system devices from removing the components of the system.

Power

The power settings protect the system from power failures by configuring the ACPI.

For example, after power failure we can stay off the system or Power on the system or else we can even make the system to restore its previous state by selecting the appropriate options.

Boot

Silent boot : If this option is enabled it displays only the OEM logo and in the background POST(Power on Self Test) completes. If this is disabled, instead of LOGO, we can view POST messages

Rapid BIOS Boot: By enabling this option it will decrease the time needed to boot the by skipping some unnecessary tests.

Here, we can also set the boot sequence from the available devices by selecting ***Boot Device Priority***.

We can even view the Hard Drives and any removable devices and attached to the system.

Exit

By selecting the appropriate options we can exit from the BIOS setup like exiting the setup by saving or discarding the changes or even by loading optimal or default values.

Internet and World Wide Web

TASK1

Orientation and Connectivity Boot Camp:

To configure TCP/IP settings

1. Open Network Connections.
2. Click the connection you want to configure, and then, under **Network Tasks**, click **Change settings of this connection**.
3. Do one of the following:
   - If the connection is a local area connection, on the **General** tab, under **This connection uses the following items**, click **Internet Protocol (TCP/IP)**, and then click **Properties**.
   - If this is a dial-up, VPN, or incoming connection, click the **Networking** tab. In **This connection uses the following items**, click **Internet Protocol (TCP/IP)**, and then click **Properties**.
4. Do one of the following:
   - If you want IP settings to be assigned automatically, click **Obtain an IP address automatically**, and then click **OK**.
   - If you want to specify an IP address or a DNS server address, do the following:
     - Click **Use the following IP address**, and in **IP address**, type the IP address.
     - Click **Use the following DNS server addresses**, and in **Preferred DNS server** and **Alternate DNS server**, type the addresses of the primary and secondary DNS servers.
5. To configure DNS, WINS, and IP Settings, click **Advanced**.

Notes

- To open Network Connections, click **Start**, point to **Settings**, click **Control Panel**, and then double-click **Network Connections**.
- You should use automated IP settings (DHCP) whenever possible, for the following reasons:
  - DHCP is enabled by default.
  - If your location changes, you do not have to modify your IP settings.
  - Automated IP settings are used for all connections, and they eliminate the need to configure settings such as DNS, WINS, and so on.

To make a local area connection

- If you have a network adapter installed, and have set up a home or small office network, you are connected to a local area network (LAN). You are also connected to a LAN if your Windows XP Professional computer is part of a corporate network. When you start your computer, your network adapter is detected and the local area connection automatically starts. Unlike other types of

connections, the local area connection is created automatically, and you do not have to click the local area connection in order to start it.

To make an Internet connection

1. Open Network Connections.
2. Under **Network Tasks**, click **Create a new connection**, and then click **Next**.
3. Click **Connect to the Internet**, and then click **Next**.
4. Choose one of the following:
   - If you already have an account with an Internet service provider (ISP), click **Set up my connection manually** and then click **Next**.
   - If you have a CD from an ISP, click **Use the CD I got from an ISP and then click Next.**
   - If you do not have an Internet account, click **Choose from a list of Internet service providers (ISPs)** and then click **Next**.
5. From your choice above, click one of the following:

Set up my connection manually

- If you are connecting to your ISP using a standard 28.8 Kbps, 56 Kbps, or ISDN modem, click **Connect using a dial-up modem**, click **Next**, and follow the instructions in the wizard.
- If your DSL or cable modem ISP connection requires a user name and password, click **Connect using a broadband connection that requires a user name and password**, click **Next**, and then follow the instructions in the wizard.
- If your DSL or cable modem ISP connection is always on and does not require you to type a user name and password, click **Connect using a broadband connection that is always on**, click **Next**, and then click **Finish**.

Use the CD I got from an ISP

- Click **Next**, and then click **Finish**. Insert the CD provided by your ISP and follow the instructions.

Choose from a list of Internet service providers (ISPs)

- To create an Internet account using MSN Explorer, click **Get online with MSN**, and then click **Finish**. Follow the instructions in MSN Explorer.
- To choose an ISP, click **Select from a list of ISPs**, click **Finish**, and then double-click **Refer me to more Internet service providers**. Follow the instructions in the wizard.

TASK2

Web Browsers and Surfing the Web:

•The **internet** is a network of computer networks worldwide•The **web** is a tool used to retrieve information published on the internet•To navigate the web we use a **browser** I.E. Internet Explorer, Mozilla Fire Fox …etc

Internet Addresses

•Each computer on the internet has its own address
•E-mail addresses discussed in e-mail classes
•Each document, essay, image, etc. On the WWW has its own address
•To find a web document, follow a link or key in a web address (URL)
•Highlighted words or text in a WWW document
•Moves you to a place within same document, or to a web page elsewhere

•An electronic document stored on a web server
•Uses HTML (Hypertext Markup Language)
•May include text, sound, animation, images
•Usually has links to other Web pages or different parts of the same Web site
•Example: http://www.yahoo.com
Customizing the Web Browser

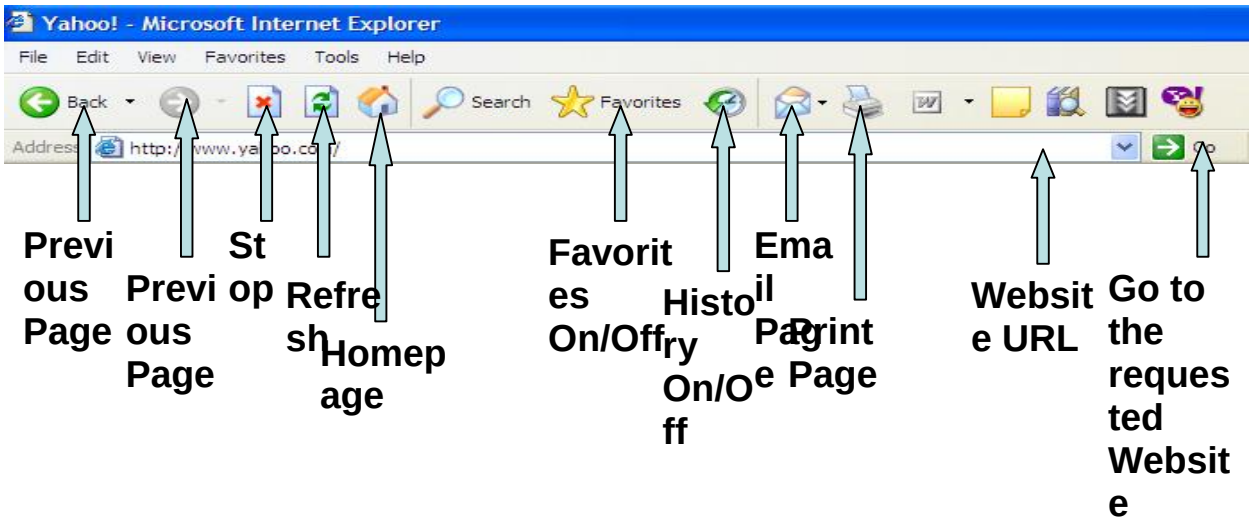
•LAN Proxy Settings
•Bookmarks
•Search Toolbars
•Pop-up blockers
•Managing Plug-ins

Proxy Server
•A server that sits between a client application, such as a Web browser, and a real server.
•It intercepts all requests to the real server to see if it can fulfill the requests itself. If not, it forwards the request to the real server.
Specifying Proxy Settings in Internet Explorer

•Goto Tools->Internet Options in main menu
•Click on the Connections tab
•Click on Lan Settings button
•Specify the proxy server address and port in the Proxy server section
•If you want to specify different proxies for different servers or you do not want to use proxy servers for some addresses, click on Advanced
–You can provide different proxy address and ports for different servers
–You can enter addresses for which you do not want to use proxy servers
Navigating the Web Using
Internet Explorer
•Moving within a page;
– Page up/down keys
– Up/down arrow keys

– Scroll bar on the right side
–Clicking on hypertext links (may be text, images, URL)
–Using the navigation, location or menu tool

Internet Explorer Toolbar Buttons



Adding a Favorite
•To add a page to your list of favorite pages
–Go to the page that you want to add to your Favorites list.
–On the **Favorites** menu, click **Add to Favorites**.
–Type a new name for the page if you want to.
•To open one of your favorite pages, on the **Favorites** menu, click the page you want to open.
•As your list of favorite pages grows, you can organize them by moving them into subfolders
Tasks
•Configure Your Browser to access the Internet
•Customize the browser
–Security Settings
–Privacy Settings
–Pop-up Blocking
–Search Toolbar
•Manage Bookmarks

TASK3

Search Engines and Netiquette:

Search Engines
•Software that lets a user specify search terms. The search engine then finds sites that contain those terms.
•Over time a search engine builds a database of searchable terms that can be matched to web sites.
•Examples:
–www.google.com–www.altavista.com–www.AskJeeves.com
Query
•Terms entered into a form of a search engine's web page.
•Not necessarily phrased as a question since words such as "what", "a", "is" etc. would be ignored.
•Enter specific keywords.
•Make sure your spelling is correct.
Methods of searching
•Use more than one word.
•Use quotes
•Use boolean queries
•Use + sign or - sign
•Use * (wild card)
Boolean Query
AND, OR, NOT
•A AND B–results in sites containing both A and B
•A OR B
–results in sites containing A or B, or both A and B
•A AND NOT B
–results in sites containing A and excludes sites containing both A and B.
Stemming
Some search engines will return results that include variations on the endings of words.
•computer
•computers
•computed
Using boolean queries
•shelf AND ice
–results in URLs of pages containing the word "shelf" <u>and</u> the word "ice" (in any order).
•shelf OR ice
–Results in URLs of pages containing the words "shelf" and "ice", or just the word "shelf" or just the word "ice".
•computers NOT notebook
–Results in URLs of pages containing the word "computers" but not containing the word "notebook".
Metasearch Engines
•Performs a search by using more than one search engine to do the search.
–www.metasearch.com
–www.metacrawler.com
–www.dogpile.com
–www.infind.com
White Pages

•Used for finding individuals
–www.bigfoot.com
–www.four11.com
–www.whowhere.com
Types of Links
•Text Hyperlink
•Image Hyperlink
•Mailto Hyperlink – launches a mailer
•Intra-document Link (Internal link) - links to another location within the same page.
To open a web page in a new browser window.
•Right-mouse click on the link of interest and then select “Open in new window”.
•Click on the original browser window on the task bar below in order to continue viewing the original web page while that page loads.•This speeds up your search since you can view one page while another is loading.
Tasks
•Write search engines to find the following
–To find pages related to Computer Science or Computer Programming
–Who invented Laser
–To find information about AND & OR gates
–To find information about apple(the fruit, NOT Apple computers)
–To search for word School of IT in jntu.ac.in

Netiquette
"Netiquette" is network etiquette, the do's and don'ts of online communication. Netiquette covers both common courtesy online and the informal "rules of the road" of cyberspace.
What is Netiquette?

Simply stated, it's network etiquette --
that is, the etiquette of cyberspace.

“Etiquette” means “the forms required by good breeding or
prescribed by authority to be required in social or official life.”

In other words, Netiquette is a set of rules for
behaving properly online.
The golden rule: Do unto others as you'd have others do unto you. Imagine how you'd feel if you were in the other person's shoes. Stand up for yourself, but try not to hurt people's feelings.
Electronic communication lacks the facial expression, gestures and tone of voice to convey your meaning. It’s easy to misinterpret meaning of words.
Would you say it to the person's face?
If the answer is no, rewrite and reread. Repeat the process till you feel sure that you'd feel as comfortable saying these words to the live person as you do sending them through cyberspace.
Remember, when you communicate through cyberspace your words are written. Chances are they're stored somewhere. They can come back and haunt you. You don't have to be engaged in criminal activity to want to be careful. Any message you send could be saved or forwarded by its recipient. You have no control over where it goes. Standards of behavior may be different in some areas of cyberspace, but they are not lower than in real life.
Be ethical.
If you encounter an ethical dilemma in cyberspace, consult the code you follow in real life.
If you use shareware, pay for it.

Paying for shareware encourages more people to write shareware. The few dollars probably won't mean much to you, but they benefit all of cyberspace in the long run.
Breaking the law is bad Netiquette.
If you're tempted to do something that's illegal, chances are it's also bad Netiquette.
Netiquette varies from domain to domain. What's perfectly acceptable in one area may be dreadfully rude in another.
Netiquette is different in different places, so it's important to know where you are.
Lurk before you leap
When you enter a domain of cyberspace that's new to you, take a look around. Spend a while listening to the chat or reading the archives. Get a sense of how the people who are already there act. Then go ahead and participate.
Bandwidth is the information-carrying capacity of the wires and channels that connect everyone in cyberspace. It also refers to the storage capacity of a host system.
If you accidentally post the same note to the same newsgroup five times, you are wasting both time (of the people who check each copy) and bandwidth (by sending repetitive information over the wires and requiring it to be stored somewhere).
You are not the center of cyberspace. Don't expect instant responses to all your questions, and don't assume that all readers will agree with -- or care about -- your passionate arguments.
Ensure your message is worth the time it takes to open it.
Before you copy people on your messages, ask yourself whether
they really need to know. If the answer is no, don't waste their time. If the answer is maybe, think twice before you hit the send key.
Take advantage of your anonymity. You won't be judged by color, weight, age or dress sense. You will, however, be judged by the quality of your writing. So spelling and grammar do count.
Know what you're talking about and make sense. Pay attention to the content of your writing. Ensure your notes are clear and logical.
Be pleasant and polite. Avoid offensive language, and don't be confrontational for the sake of confrontation.
If you must swear, think up creative alternatives
The strength of cyberspace is in its numbers. The Internet itself was founded and grew because academics wanted to share information. Don't be afraid to share what you know.
If you ask a question and anticipate a lot of answers, it's customary to request replies by email instead of to the group. Share the results of your questions with others, so everyone benefits from the experts who took the time to write to you.
If you're an expert, or you've researched a topic that you think would be of interest to others, write it up and post it. Sharing your knowledge is fun. And it makes the world a better place
opinion without holding back any emotion.
Netiquette does not forbid flaming. Flaming is a long-standing network tradition (and Netiquette never messes with tradition).
Netiquette does forbid the perpetuation of flame wars that can dominate the tone and destroy the camaraderie of a discussion group.
While flame wars can initially be amusing, they're an unfair monopolization of bandwidth.
Some people in cyberspace have more power than others. There are wizards in MUDs (multi-user dungeons), experts in every office, and system administrators in every system.

TASK 4

Cyber hygiene:

Types of Internet Threats
•Viruses
•Network Worms
•Trojans
•Spyware / Adware
•Other Malware
•Other Threats
Viruses
•Main purpose is to spread and infect files
•Attach to a file and replicate when file is executed
•More than 100 000 known viruses exists in the world today
•Several hundred new viruses are discovered every month
Network Worms
•Self-replicating Viruses that reside in the active memory of a computer.
•Worms Send themselves out to the Internet from infected systems.
•Either include tiny e-mail server or search for unprotected shared network drives to unload.
Trojan Programs
•Programs that installs themselves stealthly via Internet & provide access for malicious use
•Threats enabled by (/through) Trojans
–DDos attacks
–Data stealing
–Distributed spam eMails
•Do not replicate
Spyware / Adware
•Cookies – Track you online
•Browser Hijackers – Changes default home page
•Tracking Cookies – Gathers info of web usage
•Trickles – Reinstalls spyware when deleted
•Keyloggers – Records anything you type!
•Data-Mining
•List goes on...
Other Threats
•Phishing
–Confidential information stealing by fraud emails & web sites (author falsified)
–Several millions of Phishing messages have been sent world wide
–Fastest growing threat today
•SPIM
–Instant Messaging SPAM
–Estimated: 4 billion SPIM's during 2004
Diagnosing Infections
•Slow computer, system reboots
•Mouse moves by itself

•Browser goes to unexpected web sites
•Slow internet access
•Endless popup ads
•New desktop toolbars
Diagnosing Infections
•Disabled antivirus scanner or firewall
•Check startup program group regularly for software you didn't install
•Check Add/Remove programs for software you didn't install (make a list of installed items on a new machine and check the list regularly)
Diagnosing Infections
•Check running services monthly
•Check running processes in Task Manager
•Monitor open ports
•Monitor outgoing and incoming connections
Updating
•Few pieces of software are perfect. Many have security flaws that can allow an intruder to take over your system.
•When the flaws are discovered, the vendor generally fixes them and places patches on their Web sites.–
https://www.Microsoft.com/Security (Windows, Internet Explorer, Outlook, etc.)
–http://www/redhat.com/solutions/security/ (Red Hat Linux)
–http://securityresponse.symantec.com/ (Norton Anti-Virus)
•Some vendors provide a tools for Automatic Updates
Anti-Virus Software
•Examples
–Norton Anti-Virus
–Mc Afee Anti-Virus
–AVG Anti-Virus
AntiSpyware Tools
•Only Software tools exist at the moment
•Programs are trying to detect distinctive signs that spyware places on system
•Popular software
–Lavasoft: Ad-Aware SE
–Spybot: Search & Destroy
Firewalls
•Monitor network traffic and Block access by configured rules
•Software Vs. Hardware
•Stateful inspection
–Examine the headers & content of each passing network packet

Productive Tools

MS Publisher

MS Publisher:
Microsoft Publisher helps us to create, customize, and publish materials such as newsletters, brochures, flyers, catalogs, and Web sites. In this module, we will learn create and publish web pages using MS Publisher.

Inserting and Editing Text Objects

Many of the concepts and techniques that you know from working with a word processor will carry over to Publisher. One important thing to remember is that all text needs to be in a text box.

- Creating a Text Box
- Adding Text
- Selecting Text
- Editing Text
- Changing Type Specifications
- Cutting, Copying, and Pasting Text

Creating a Text Box

A text box is an area that contains text only and can be moved to any part of the publication. Type within a text box can fill only the area of the text box, not the entire publication. Before typing text, a text box must be created.

1. From the *Objects* toolbar, select the ***Text Box***
   If the *Objects* toolbar is not visible, from the *View* menu, select ***Toolbars » Objects***
2. Move the tool across the screen
   The cursor looks like a cross.
3. Place the cursor where the text box should begin
4. To create the text box, click and drag
5. Release the mouse button
   A text box with a cursor appears.

Adding Text

Typing large volumes of text in Publisher is not advised. But using Publisher to type headlines, titles, captions, headers and footers (type which is usually set off with a different style or placement) is easy.

Adding Text: Typing

If you need to type or edit a large amount of text, you may want to use Word.

1. Create a text box
2. Type the text
   HINT: To see the text better, zoom in by pressing [**F9**]. To zoom out, press [**F9**] again.

Adding Text: Paste Special

Text files from Publisher-compatible word processing programs such as Microsoft Word can be placed into a Publisher document. Text with little or no formatting generally works best. After placing the text into Publisher you can edit, format and manipulate it using the same methods as you would for text typed directly into Publisher.

Pasting text into Publisher that has been copied from another file can be done using the *Paste Special* feature. There are various ways that your text can be pasted. Your options when using *Paste Special* are as follows:

Option	Description
Microsoft Office Word Document Object	Inserts the copied text from Word and gives you the ability to edit it from Publisher using Word.
Unformatted Text	Inserts the copied text, removing any existing formatting.
New Table	Inserts the copied text as a new Publisher table.
New Text Box	Inserts the copied text as a new Publisher text box.
Picture	Inserts the copied text as a new Publisher picture frame. You can select whether you want to use a Windows Metafile or an Enhanced Windows Metafile. **NOTE:** This text can not be edited.
Formatted Text	Inserts the copied text, preserving existing formatting.
HTML	Inserts the copied text as HTML.

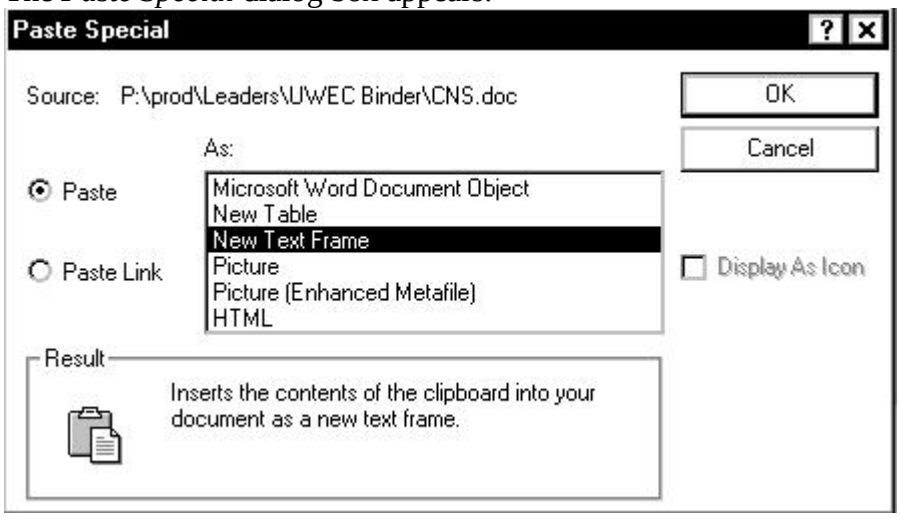
When you paste text, Publisher will create the text boxes necessary to accommodate it or will allow you to create the text boxes. These two options are described here:

Option	Description
Autoflow	Autoflow allows you to place text and have Publisher create the text boxes as needed. Text will flow automatically into each text box on the page and onto subsequent pages (added if necessary).
Manual Flow	Manual text flow requires you to create the text boxes and add the pages necessary to accommodate the text you are placing. If you choose to use the manual text flow option, be sure to have the *Connecting Frames* toolbar displayed.

To add text using Paste Special:

1. Select the text to be copied
2. Copy the selected text

3. In Publisher, from the *Edit* menu, select ***Paste Special...***
   The *Paste Special* dialog box appears.



4. In the *As* scroll box, select an option
   HINT: For text that you will want to edit or format, select ***New Text Frame***.
5. Click **OK**
   The text is now pasted.

Adding Text: Inserting a Text File

1. Create a text box
2. From the *Insert* menu, select ***Text File...***
   The *Insert Text* dialog box appears.
3. Locate and select the desired file
4. Click **OK**
   If the text file is larger than the text box, a confirmation dialog box appears asking you to choose between auto or manual flow.

Selecting Text

You will select text when you want to change its type specifications, cut or copy it, or delete it. Use the *Select Objects* tool to select text for editing.
HINT: If you have problems selecting the first character at the edge of a text block, start with the last character and drag to the first character.

Editing Text

If you make a mistake while typing, you can always go back and fix it. Editing text in Publisher is much like editing text in a word processor. You have the following options when editing text:

- To insert text, simply type and text will appear at the insertion point
- To delete the selected text, press [**Delete**]
- To delete text to the right of the insertion point, press the [**Delete**] key
- To replace the selected text, begin typing.
  The selected text will be replaced by the new text that you type.

- To change type style, select the appropriate options from the *Formatting* toolbar.
  For more information, see Changing Type Specifications.
- To move or duplicate the text, from the *Edit* menu, select ***Cut***, ***Copy,*** or ***Paste***.
  For more information, see Cutting, Copying, and Pasting Text.

Create, use, or change a template in Publisher

If you run a typical business, you probably create certain publications — such as newsletters, flyers, postcards, and gift certificates — over and over again. While each new version is unique, some elements remain consistent, like your company name and address.

In a monthly newsletter, for example, much of the layout stays the same, but the content of the newsletter changes for each version.

Learn about templates

You can make a template from any publication by saving that publication as a Publisher template file. Any template that you save to the default template location becomes available in the **New Publication** task pane.

When you start a new publication by selecting a template, a copy of the template file opens so that the original template isn't altered by mistake. If you want to make changes to the template itself, you can open a copy of the template file, make the changes that you want, and then save it again as a template. You can also create categories for your templates in order to organize them in the **New Publication** task pane.

You can save time by designing a master publication that reflects your company brand and identity and then saving it as a template. Then, each time you want to create a new version, you can use the template and add only the information that is unique to that version. Using a template for a publication that you regularly produce not only saves time but also ensures quality and consistency.

There are many ways to create a publication in Publisher. Publisher offers many designs that are like templates, but with dynamic features that make it easy to change the design, layout, colors, and other elements. You can:

- Use a Publisher Master Design Set to promote a consistent company identity.

- Use one of the publication wizards to create exactly the type of publication you want, such as a calendar, newsletter, or postcard.

You can even design a publication by using a design set or publication wizard and then save it as a template.

This article is about how to save a publication as a template and work with template files (.pub) that are located on your computer.

For more information about how to design a publication to save as a template, read about creating branded templates for your business from scratch in Publisher.

For information about downloading a template from the Microsoft Office Online Web site, click **Downloading Office Online templates** in the **See Also** section of this article.

Save a publication as a template

You can make a template from any publication by saving that publication as a Publisher template file. You can also download a template from Microsoft Office Online, make any changes that you want, and save the file as a template that you can use again.

1. Create or open the publication that you want to use as a template.
2. On the **File** menu, click **Save As**.
3. In the **Save as type** box, click **Publisher Template**.

   The destination folder changes to the default template location (C:\Documents and Settings*user name*\Application Data\Microsoft\Templates, if you haven't changed the location in Microsoft Word). You need to save your template in this folder if you want it to appear on the right side of the **New Publication** task pane.

4. In the **File name** box, type a name for the template.
5. Click **Save**.

Use a template to create a publication

This procedure works only if you already created a publication template in Publisher (by choosing **Publisher Template** in the **Save as type** list when you saved the publication) and saved it to the default template location.

Note If you save a publication template to a location other than the default template location, it is not available in the **New Publication** task pane, and you cannot use it as a template.

1. On the **File** menu, click **New**.
2. In the **New Publication** task pane, under **New from a design**, click **Templates**, and then click the template that you want to use.
3. Add the content that you want, and make any changes that you want in the new version of your publication.
4. When you want to save this version of the publication, click **Save As** on the **File** menu.
5. Save the publication as a regular Publisher file in any location that you want.

Change a template

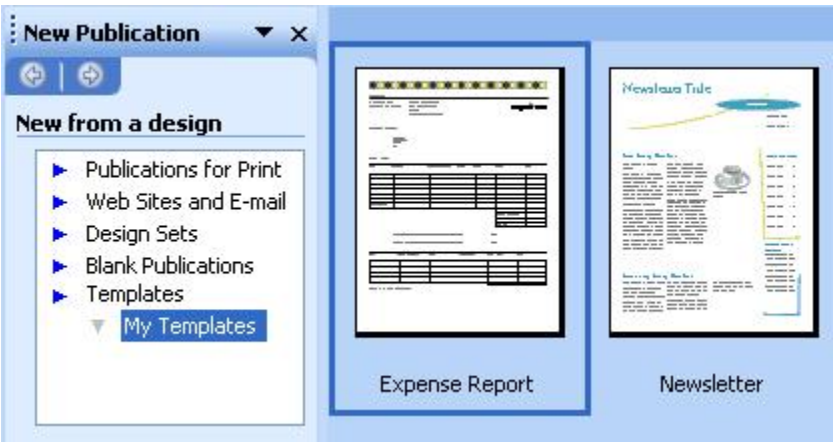
This procedure works only if you already created a publication template in Publisher and saved it to the default template location.

Note If you save a publication template to a location other than the default template location, it is not available in the **New Publication** task pane, and you cannot use it as a template.

1. On the **File** menu, click **New**.
2. In the **New Publication** task pane, under **New from a design**, click **Templates**.
3. In the **Preview Gallery**, click the template that you want to change.
4. Make the changes that you want.
5. On the **File** menu, click **Save**.
6. In the **Save as type** box, click **Publisher Template**.
7. Click the name of the template that you changed.
8. Click **Save**.
9. When you are asked if you want to replace the existing file, click **Yes**.

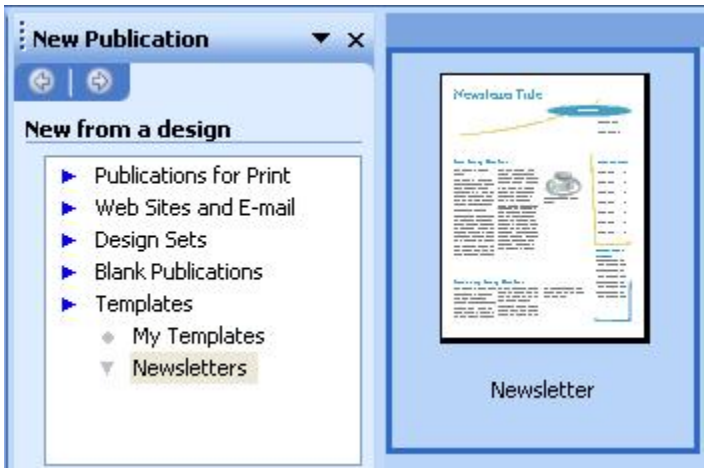
Organize your templates by using categories

By default, templates that you save to the default templates folder appear in the **My Templates** category under **Templates** in the **New Publication** task pane.



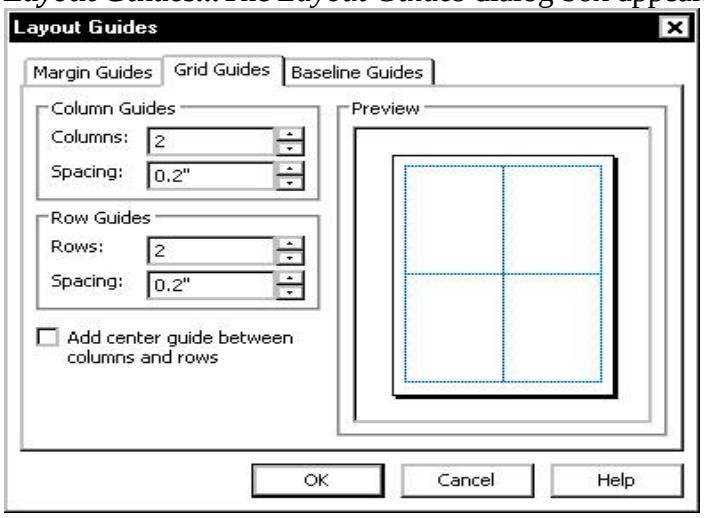
You can organize your templates into additional categories under **Templates** by adding a value to the **Category** property for the template file.

1. On the **File** menu, click **New**.
2. In the **New Publication** task pane, under **New from a design**, click **Templates**, and then click the template that you want to categorize.
3. On the **File** menu, click **Properties**, and then click the **Summary** tab.
4. In the **Category** box, type the name of the category that you want to create.
5. Click **OK**.
6. On the **File** menu, click **Save**.
7. In the **Save as type** box, click **Publisher Template**.
8. Click the name of the template that you categorized.
9. When you are asked if you want to replace the existing file, click **Yes**.



Layouts

Layout guides allow you to create a grid of horizontal and/or vertical lines automatically instead of manually. This can be helpful when creating business cards or note cards.From the *Arrange* menu, select ***Layout Guides...***The *Layout Guides* dialog box appears.



1. Select the ***Grid Guides*** tab
2. Under the *Column Guides* section, in the *Columns* text box, use the nudge buttons to add/delete columns in the grid
3. Under the *Row Guides* section, in the *Rows* text box, use the nudge buttons to add/delete rows in the grid
4. To display a line between column and row borders, select ***Add center guide between columns and rows***
5. When done, click **OK**
   The grid is created.

Inserting and Removing Pages

Once you have begun working on a publication, you may decide that the number of pages originally assigned to the document is either not enough or too many. You can adjust the number of pages, however, by inserting or removing pages.

- Inserting Pages
- Removing Pages

Inserting Pages

Your page insertion options depend on whether you are viewing your publication in *Two-Page Spread* view or as individual pages.

Inserting Pages: Individual Pages

1. Place the insertion point in the page before or after where the additional pages will be inserted
2. From the *Insert* menu, select ***Page...***
   The *Insert Page* dialog box appears.

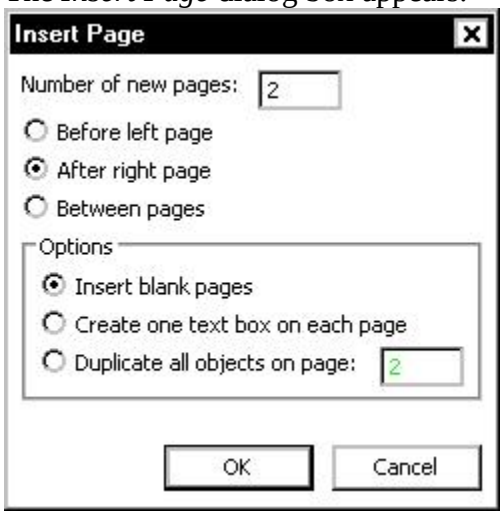
3. In the *Number of new pages* text box, type the number of pages to be inserted
4. To insert the pages **before** the currently displayed page, select ***Before current page***
   To insert the pages **after** the currently displayed page, select ***After current page***
5. Click **OK**
   The pages are inserted.

Inserting Pages: Two-Page Spread

When working with the *Two-Page Spread* view, you can insert new pages to the left or right of the two-page spread or between the two pages.

1. Place the insertion point in the page before or after where the additional pages will be inserted

2. From the *Insert* menu, select ***Page...***
   The *Insert Page* dialog box appears.



3. In the *Number of new pages* text box, type the number of pages to be inserted
4. To insert the pages **before** the left page, select ***Before left page***
   To insert the pages **after** the right page, select ***After right page***
   To insert the pages **between** the left and right pages, select ***Between pages***
5. Click **OK**
   The pages are inserted.

Removing Pages

Your page removal options depend on whether you are viewing your publication in *Two-Page Spread* view or as individual pages.

Removing Pages: Individual Pages

1. Place the insertion point in the page to be removed
2. From the *Edit* menu, select ***Delete Page...***
   The page is removed.

Removing Pages: Two-Page Spread

1. Place the insertion point in the page(s) to be removed
2. From the *Edit* menu, select ***Delete Page...***
   The *Delete Page* dialog box appears.

3. To delete both displayed pages, select ***Both pages***
   To delete only one of the displayed pages, select ***Left page only*** or ***Right page only***
   The page(s) are removed.

Create a hyperlink

In Microsoft Office Publisher 2003, you can create hyperlinks to files, Web pages, e-mail addresses, and other pages in a Web publication by using the **Insert Hyperlink** button on the **Standard** toolbar.

You can also create a hyperlink to a specific location on a Web page (sometimes called inserting a bookmark) by using HTML code fragments. To learn more about this procedure, see the topics listed in the **See Also** section, which is visible when you are connected to the Internet.

To follow a hyperlink after you insert it, hold down CTRL while you click the linked text or picture.

Create a hyperlink to a file

1. Select either text or a picture.
2. On the **Standard** toolbar, click **Insert Hyperlink** .
3. Under **Link to**, click **Existing File or Web Page**.
4. Do one of the following:
   - To select a file from your My Documents folder, click **Current Folder**.
   - To select a file that you were recently working in, click **Recent Files**.
5. Browse to and select the file or page that you want.

Create a hyperlink to a Web page

1. In your Web browser, browse to the Web page that you want to link to.
2. Select the URL of the Web page, and then press CTRL+C to copy it.
3. In Publisher, select either text or a picture.
4. On the **Standard** toolbar, click **Insert Hyperlink** .
5. Under **Link to**, click **Existing File or Web Page**.
6. Click in the **Address** box, and then press CTRL+V to paste the URL.

Note If you recently visited the Web page that you want to link to, you can start with step 3. In the **Insert Hyperlink** dialog box, click **Browsed Pages**. In the list of Web pages, click the URL that you want.

Create a hyperlink to an e-mail address

1. Select either text or a picture.
2. On the **Standard** toolbar, click **Insert Hyperlink** .
3. Under **Link to**, click **E-mail Address**.
4. Either type the e-mail address that you want in the **E-mail address** box, or select an e-mail address from the **Recently used e-mail addresses** box.
5. In the **Subject** box, type the subject of the e-mail message.

Note Some Web browsers and e-mail programs might not recognize the subject line.

Create a hyperlink to another page in your document

1. Select either text or a picture.
2. On the **Standard** toolbar, click **Insert Hyperlink** .
3. Under **Link to**, click **Place in This Document**.
4. Select the page that you want.

Create a hyperlink to a new file

1. Select either text or a picture.
2. On the **Standard** toolbar, click **Insert Hyperlink** .
3. Under **Link to**, click **Create New Document**.
4. Type the name of the new file, including the three-letter extension (such as .pub, .doc, or .xls).
5. Do one of the following:
   - If you know the full path of the location where you want to create the new file, you can include the full path with the name.
   - If you don't know the full path, click **Change**, and then browse to the location that you want, select it, and then click **OK**.
6. Click either **Edit the new document later** or **Edit the new document now**.

Publish a Publisher Web site

After you have created a Web publication in Publisher, your next step is to publish it. You can publish a Web site to a Web server (Web server: A computer that hosts Web pages and responds to requests from browsers. Also known as an HTTP server, a Web server stores files whose URLs begin with **http://**.), a network server, a File Transfer Protocol (FTP) (FTP: A communication protocol that makes it possible for a user to transfer files between remote locations on a network. This protocol also allows users to use FTP commands, such as listing files and folders, to work with files on a remote location.) server, or to a folder on your own computer.

Publish a Web site to a location on the Internet or on a network

To publish your Web site on the World Wide Web (WWW) (World Wide Web (WWW): The multimedia branch of the Internet that presents not only text, but also graphics, sound, and video. On the Web, users can easily jump from item to item, page to page, or site to site by using hyperlinks.), you need to subscribe to a Web hosting service. A Web hosting service provides Internet access and storage space on Web servers. Before you can publish your Web site, you should ask your Internet Service Provider (ISP: A business that provides access to the Internet for such things as electronic mail, chat rooms, or use of the World Wide Web. Some ISPs are multinational, offering access in many locations, while others are limited to a specific region.) or system administrator for the Uniform Resource Locator (URL) (Uniform Resource Locator (URL): An address that specifies a protocol (such as HTTP or FTP) and a location of an object, document, World Wide Web page, or other destination on the Internet or an intranet, for example: http://www.microsoft.com/.) of the Web site where you can save files.

1. On the **File** menu, click **Publish to the Web**.
2. In the **File name** box in the **Publish to the Web** dialog box, type the URL of the Web or network server where you want to save your Web site, and then click **Save**.
3. If prompted, type your user name and password, and then click **OK**.

The directory associated with your URL will appear in the **Publish to the Web** dialog box.

4. Double-click the folder where you want to save your Web site.
5. In the **File name** box, select **index** as the default name for your home page, and then click **Save**.
6. When prompted, click **OK**.

Publish a Web site using FTP

Before following this procedure, contact your Internet Service Provider or system administrator to get the information you need to publish to an FTP (FTP: A communication protocol that makes it possible for a user to transfer files between remote locations on a network. This protocol also allows users to use FTP commands, such as listing files and folders, to work with files on a remote location.) site. You also have to create an FTP site in **FTP Locations**.

How?

1. On the **File** menu, click **Publish to the Web**.
2. In the **Save in** box, click **FTP Locations**.
3. Double-click **Add/Modify FTP Locations**.
4. Enter the information you received from your Internet Service Provider, and then click **OK**.
5. Click **Cancel**.

1. On the **File** menu, click **Publish to the Web**.
2. In the **Save in** box, click **FTP Locations**.
3. In the list of FTP sites, double-click the site you want, and then double-click the folder where you want to publish your Web site.
4. Click **Save**.

Publish a Web site to a folder on your computer

1. On the **File** menu, click **Publish to the Web**.
2. In the **Save in** list, in the **Publish to the Web** dialog box, click the drive or folder where you want to publish your Web site.
3. Do one of the following:
   - In the folder list, double-click the folder where you want to publish your Web site.
   - Click **Create New Folder** to create a new folder, and then type a name for the new folder in the **Name** box.
4. In the **File name** box, type a file name for your Home page.
5. Click **Save**.

Note If your Internet Service Provider (ISP) requires you to use a specific program to upload your Web site, or if you are publishing your Web site to a corporate intranet, you may need to save a version of your Web site in a specific HTML (HTML: The standard markup language used for documents on the World Wide Web. HTML uses tags to indicate how Web browsers should display page elements such as text and graphics and how to respond to user actions.) file format and follow a different procedure to publish your Web site. Ask your ISP or your system administrator for information about how to save and publish your Web site.

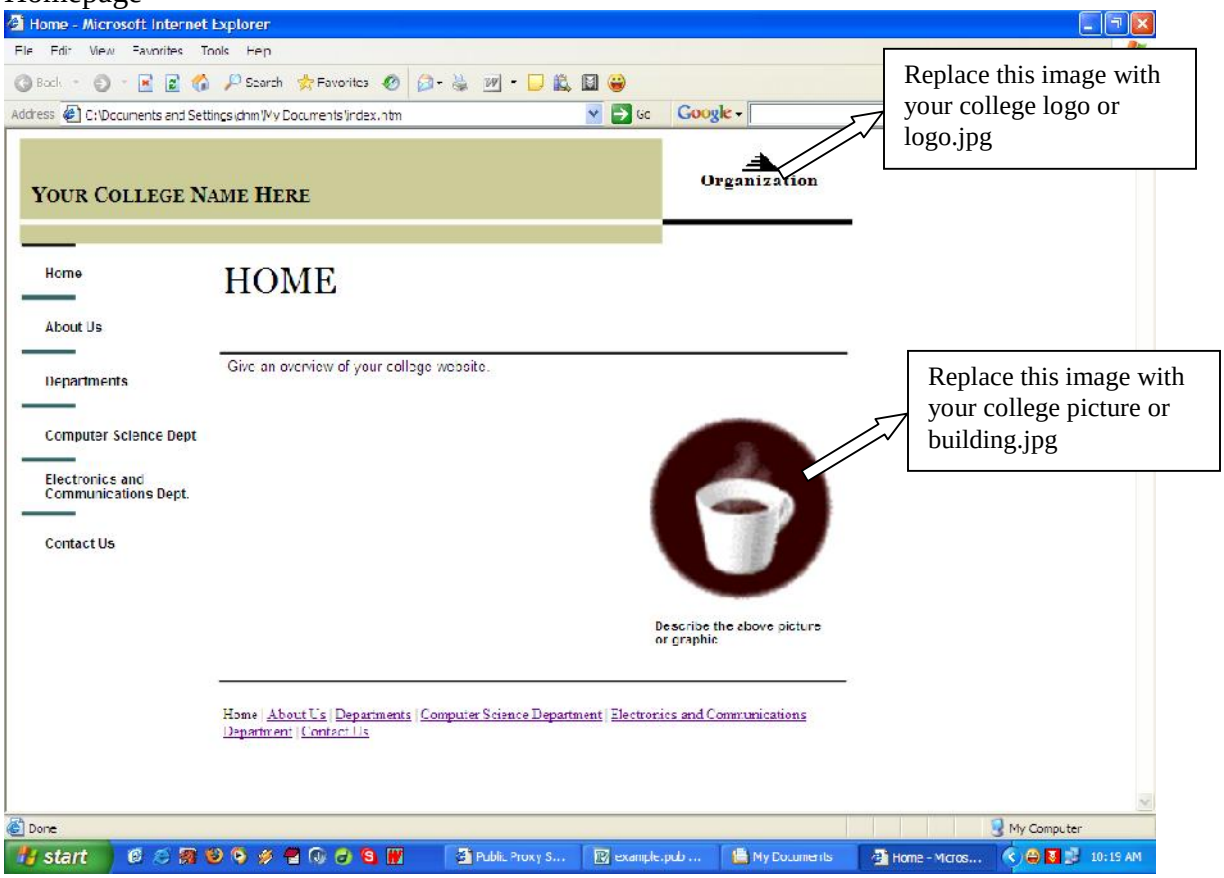
Create a website for your college. The website should have the following pages

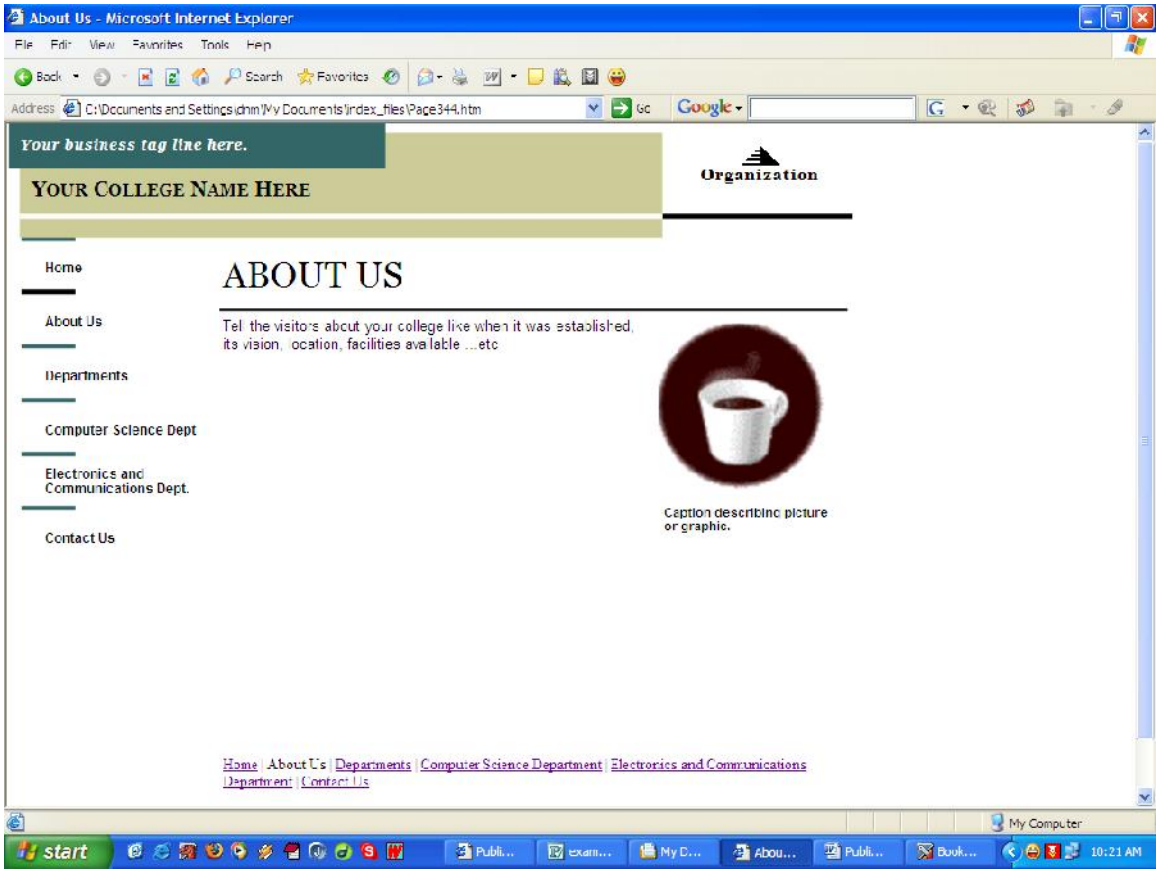
1. Homepage which describes the college website
2. About Us page which tells about the college vision, when it was established...etc
3. Departments page which describes the departments in the college
4. Separate pages for at least two departments of your college
5. Contact page which contains address and contact information about the college

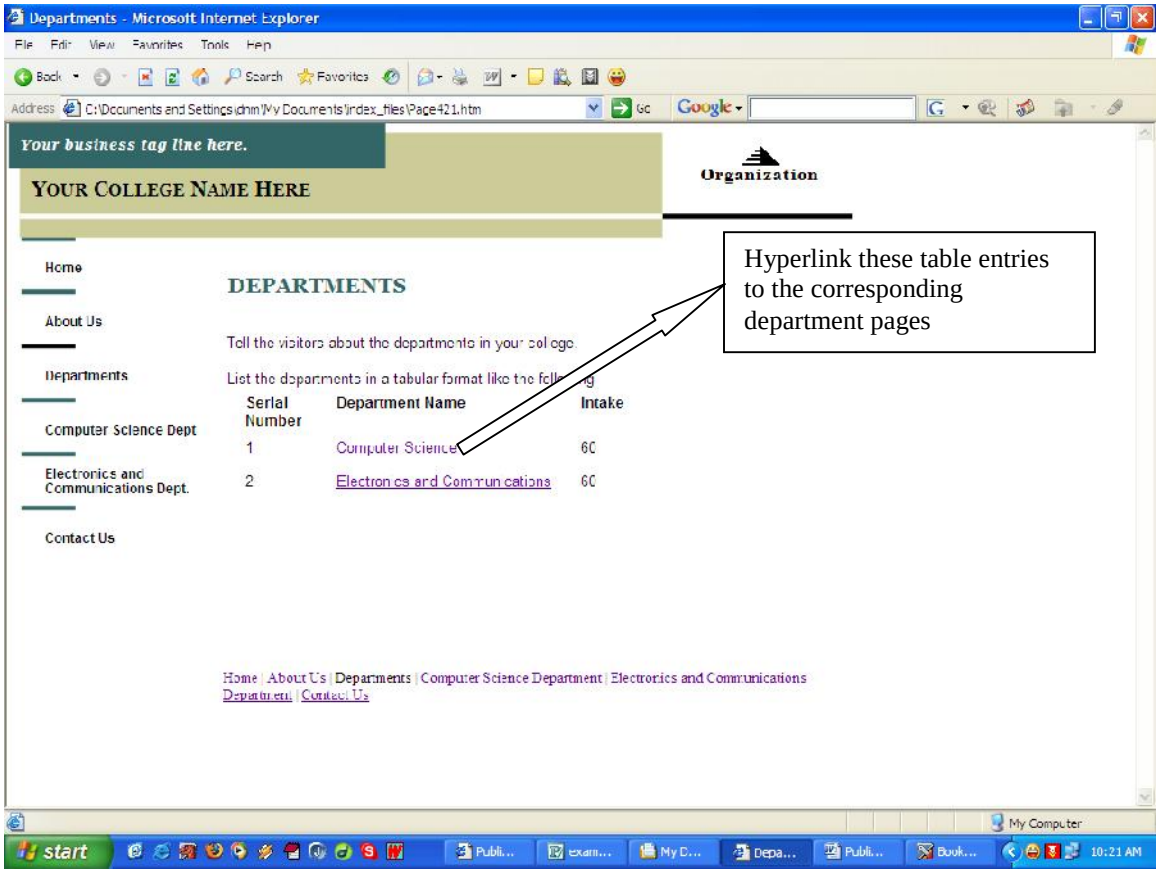
Guidelines for the website are given below:

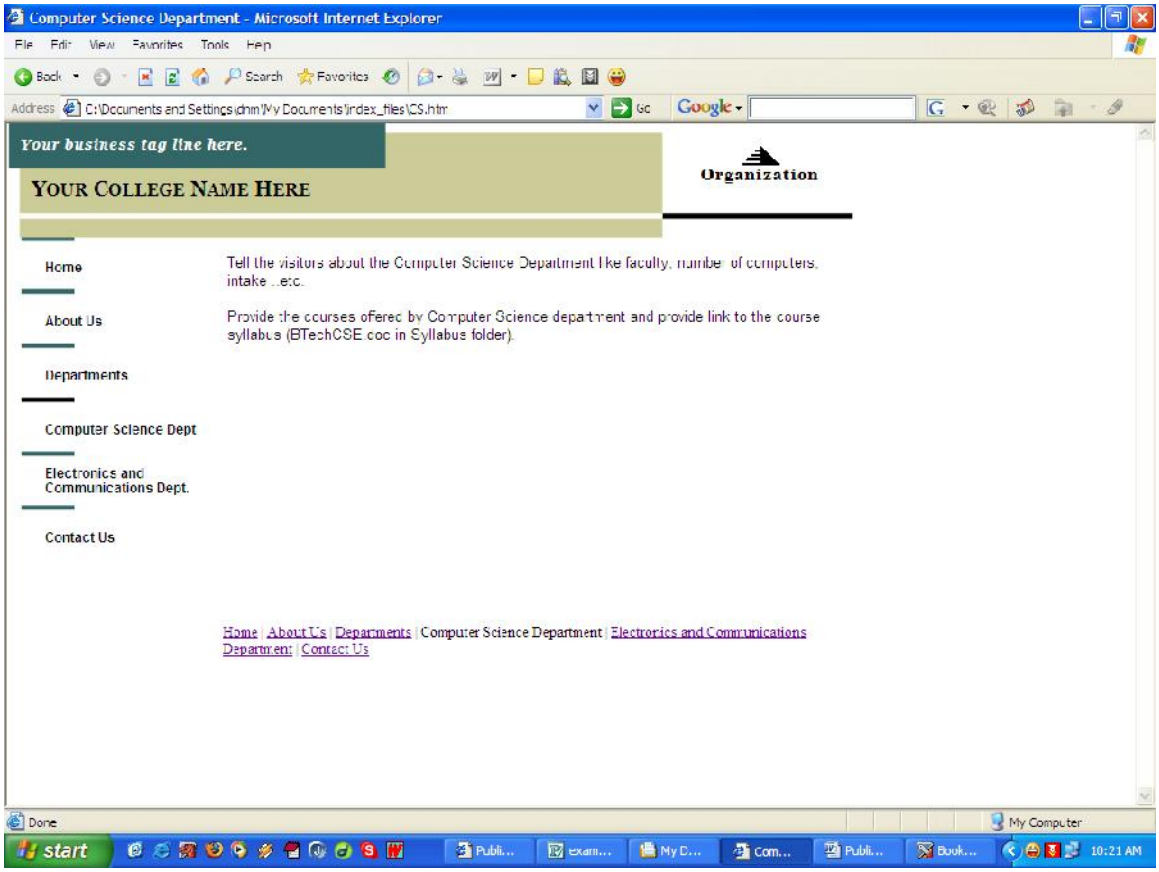
NOTE: Resources like and images and documents are available in Website Content Folder

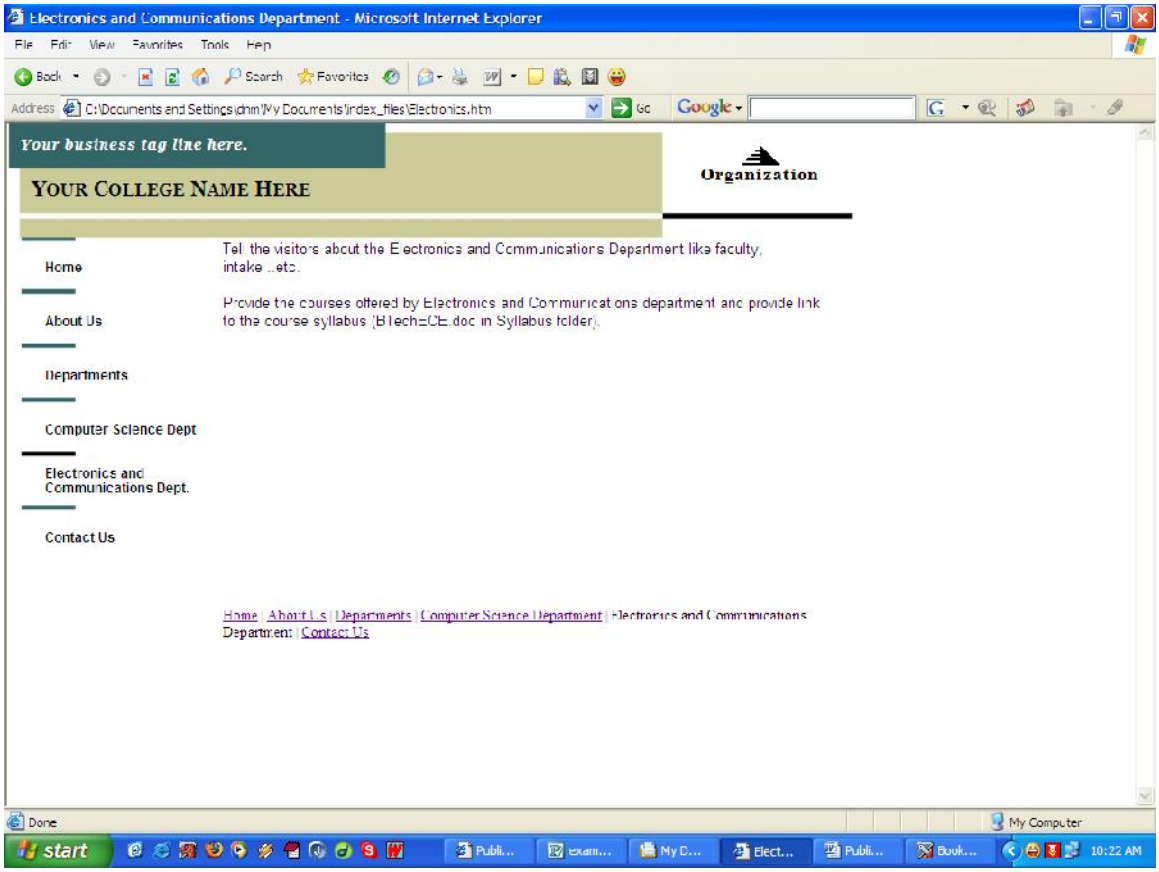
Homepage

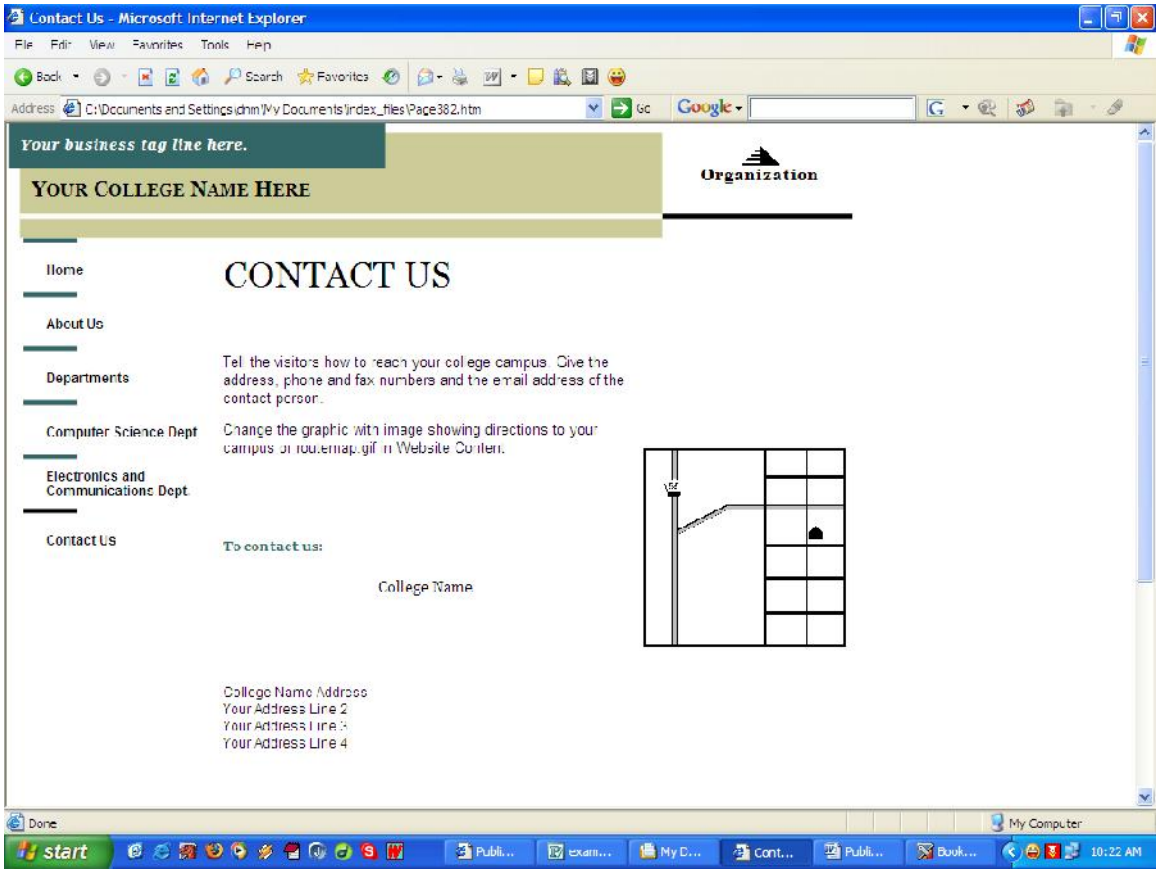



About Us - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites
Address C:\Documents and Settings\dhm\My Documents\index_files\Page344.htm
Google
Your business tag line here.
YOUR COLLEGE NAME HERE
Organization
Home
About Us
Departments
Computer Science Dept
Electronics and Communications Dept.
Contact Us
ABOUT US
Tell the visitors about your college like when it was established, its vision, location, facilities available ...etc
Caption describing picture or graphic.
Home | About Us | Departments | Computer Science Department | Electronics and Communications Department | Contact Us
My Computer
start
10:21 AM


Departments - Microsoft Internet Explorer
Your business tag line here.
YOUR COLLEGE NAME HERE
Organization
Home
About Us
Departments
Computer Science Dept
Electronics and Communications Dept.
Contact Us
DEPARTMENTS
Serial Number
Department Name
Intake
1
Computer Science
60
2
Electronics and Communications
60
Hyperlink these table entries to the corresponding department pages
Home | About Us | Departments | Computer Science Department | Electronics and Communications Department | Contact Us


Computer Science Department - Microsoft Internet Explorer
Your business tag line here.
YOUR COLLEGE NAME HERE
Organization
Home
About Us
Departments
Computer Science Dept
Electronics and Communications Dept.
Contact Us
Home | About Us | Departments | Computer Science Department | Electronics and Communications Department | Contact Us


Electronics and Communications Department - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites
Address C:\Documents and Settings\dhm\My Documents\index_files\Electronics.htm
Go
Google
Your business tag line here.
YOUR COLLEGE NAME HERE
Organization
Home
About Us
Departments
Computer Science Dept
Electronics and Communications Dept.
Contact Us
Tell the visitors about the Electronics and Communications Department like faculty, intake ...etc.
Provide the courses offered by Electronics and Communications department and provide link to the course syllabus (BTech-CE.doc in Syllabus folder).
Home | About Us | Departments | Computer Science Department | Electronics and Communications Department | Contact Us
Done
My Computer
start
Publi...
exam...
My D...
Elect...
Publi...
Book...
10:22 AM


Contact Us - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites
Address C:\Documents and Settings\dhm\My Documents\index_files\Page382.htm
Google
Your business tag line here.
YOUR COLLEGE NAME HERE
Organization
Home
About Us
Departments
Computer Science Dept
Electronics and Communications Dept
Contact Us
CONTACT US
Tell the visitors how to reach your college campus. Give the address, phone and fax numbers and the email address of the contact person.
Change the graphic with image showing directions to your campus in Website Content.
To contact us:
College Name
College Name Address
Your Address Line 2
Your Address Line 3
Your Address Line 4
Done
My Computer
start
10:22 AM

LaTeX

What is LaTeX?

- A **typesetting program** written by Leslie Lamport of MIT.
- Pronounced "Lah-tek, or Lay-tek"
- Uses TeX engine written by Donald E. Knuth
- Designed for producing beautiful books, thesises, papers, articles...
- De facto standard for writing academic papers
- Current version LaTeX2e

Why LaTeX, not MS Word?

- FAST professional output – **highest quality**
- Platform, version independent (Unix, Win)
- Device independent output (.dvi)
- Pre-set standard formats for all types of documents
- Freely available
- Secure – never lose your files, both old and new!
- Concentrate on content, leave the style to LaTeX.
- *Source code* for large docs comparatively small.

Disadvantages

- Need other software for extensibility.
- Need to access CTAN for modules.
- Complex tables are not easy J
- Not WYSIWYG but WYSIWYM !
- Rather steep learning curve - need to remember commands
- Encourages structured writing – counter-intuitive for lay users!
- Not integrated with other MS Office products

Where to get LaTeX?

- Linux:
- Almost all distributions bundle LaTeX.
- Windows packages and frontends.
- MikTeX
- WinShell/TeXnicCenter/LEd/Texmaker
- LyX (for win and Lin as well)
- Where to get help?
- newsgroup comp.text.tex
- LaTeX package documentation
- Google for LaTeX tutorials

LaTeX package structure

■A collection of **defined commands**
■**Classes and packages.**■AMS-TeX – a **collection of extensions** to TeX with more advanced mathematical typesetting features.
■**Markup language**
■Similar to “tagging” and “Markup” (think HTML!)
■Create (tex) > Compile (tex) > Run/view (dvi/pdf/ps)

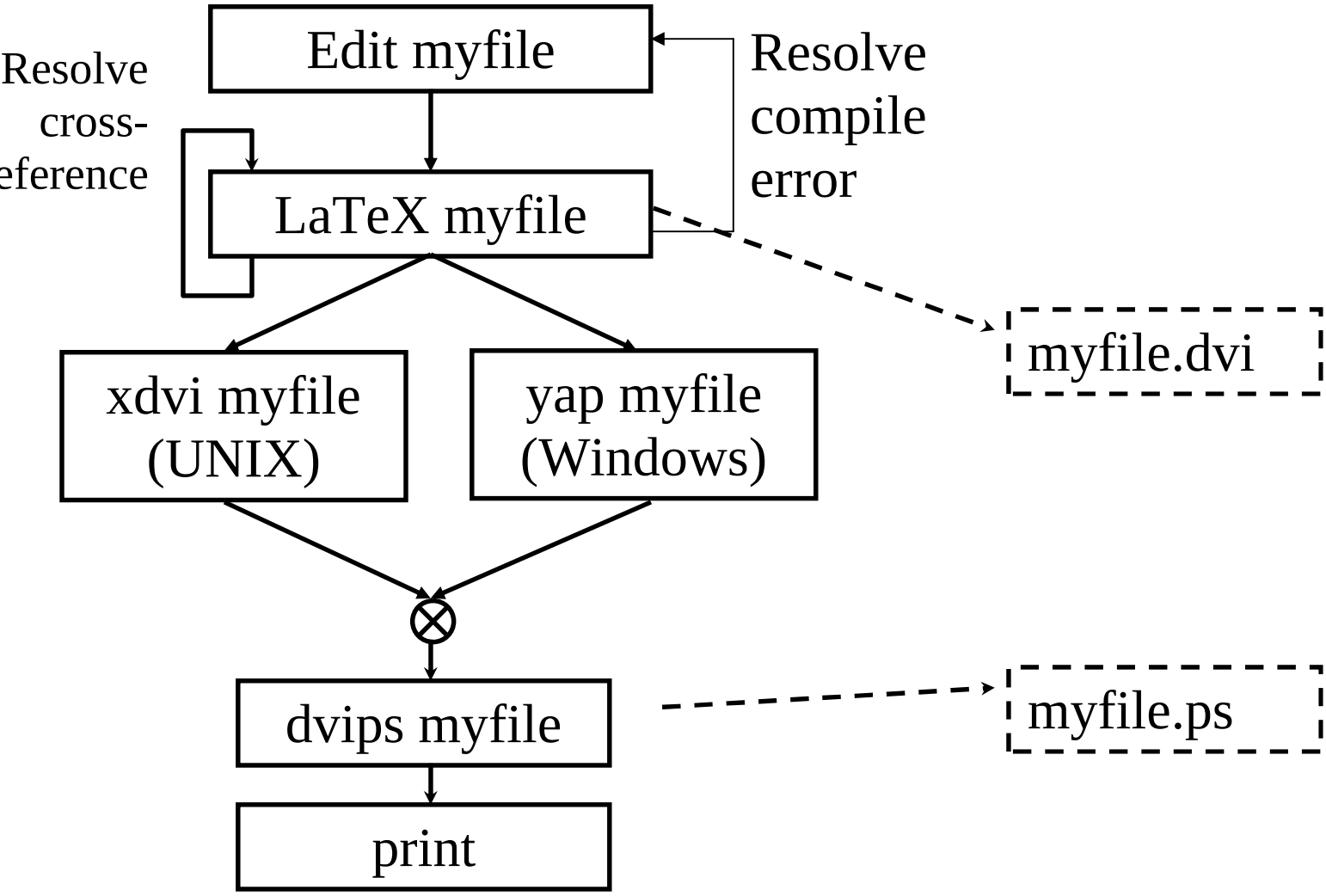
LaTeX Skeleton

```
% my first LaTeX file
\documentclass[options]{class}
\begin{document}
        Hello, world!
\end{document}
```

How To Run LaTeX

■Compose/Edit --> TeXnicCenter *myfile.**tex***■Compile --> *LaTeX myfile.**tex***
■View --> *xdvi myfile.**dvi*** (UNIX)
*yap myfile.**dvi*** (Windows)
■Dvi --> PostScript *dvips myfile*
■View PostScript *gv myfile* (UNIX)
Use *gsview* (Windows)

Syntax



The syntax of LaTeX

- Families, classes and environments

- All LaTeX commands start with '\'
- Ex - \author{R.Raghuram}
  - \title{how to learn latex}
  - \section{section name}
- All environments begin with "\begin{env name}"
- Special Characters - #$%^&_{}~\
- Anything that begins with '%' is a comment.
- % Anything after this symbol is ignored

File formats encountered in Latex

- .tex - LaTeX input file. Can be compiled with latex.
- .sty - LaTeX Macro package.
- .cls - Class files define what your document looks like. They are selected with the \documentclass cmd
- .dvi - Device Independent File.
- .log - Gives a detailed account of what happened during the last compiler run.
- .toc - Stores all your section headers. It gets read in for the next compiler run and is used to produce the table of content.

Important "layout" commands in Latex

- \documentclass[options]{class}
- \title
- \maketitle % commit title info to paper.
- \begin{document}; \end{document}
- \begin{abstract}; \end{abstract}
- \include{filename} % call another file here.
- \begin{equation}; \end{equation}
- \usepackage{packagename}
- \section{sectionname}

Important formatting commands

- \underline{text}
- \emph{text} % set text to *italics*
- \textbf{text} % set text to **bold**
- \bfseries % switches to bold from here.

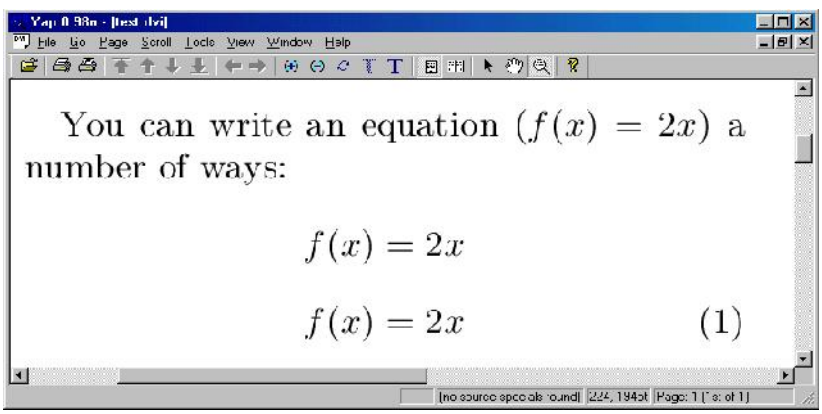
Some more formatting!

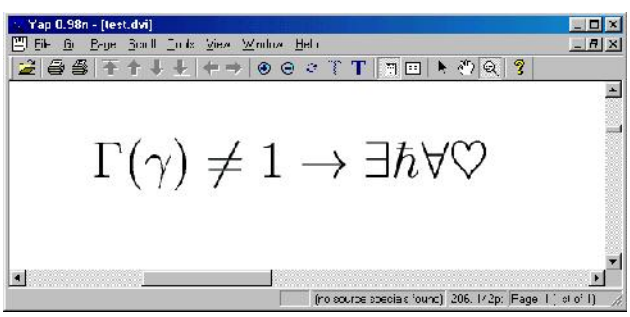
Simple Font Changing Commands

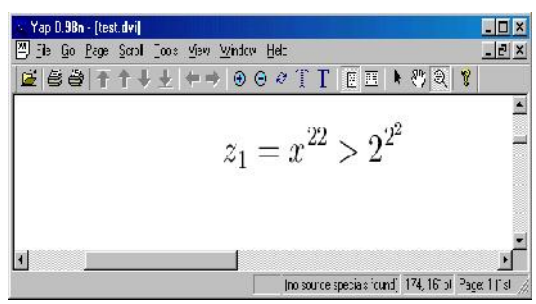
Changing the Font Size

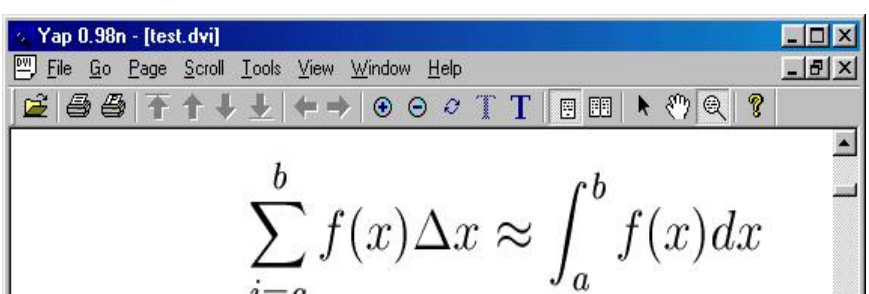
Declaration	Environment	Sample
\tiny	tiny	tiny text
\scriptsize	scriptsize	script sized text
\footnotesize	footnotesize	footnote sized text
\small	small	small text
\normalsize	normalsize	normal sized text

Some exemplary examples









How to solve problems

- Look at the error LaTeX gave you.
- It will have a line number which will help you find the error.
- Common mistakes:
- Mismatched \begin{}/\end{} blocks
- Mismatched {/}
- Mismatched $, $$, or \(\) or \[\]
- Misspelled keywords
- Sometimes lines are too long. This isn't fatal but looks bad. LaTeX outputs a warning with a line number so you can fix it.

Microsoft Word

TASK1

Sun rolls out network products

BY Brian Robinson
June 2nd 2005

1

3

Officials at SUN MICROSYSTEMS INC. introduced a slew of products to boost delivery of network services, including a new file system for the Solaris operating system, a second release of an identity management solution and a subscription-based model that assigns a single price to more than 100 services.

Sun's new Dynamic File System provides "16 billion times more capacity" than current file systems, said Sun's chief executive officer Scott McNealy, making it infinitely scalable.

The file system, which is included as a part of Solaris 10, also automates many of the tasks that systems administrators now have to do by hand. Creating and growing file systems has been cut from 28 to just five separate tasks, for example, while adding mirrored file systems and storage space for users will now take as little as 10 seconds.

The second release of the identity-management solution has three new products based on the software acquired by Sun with its recent purchase of Waveset Technologies Inc. The Sun Java System Identity Manager combines user provisioning with metadirectory capabilities, which Sun claims is an industry first, enabling administrators to manage identity permissions and profiles and simultaneously synchronize services for those directories across the enterprise.

The other products include an access manager to help manage access to internal and external Web-based resources, and an enterprise version of the Sun Java System Directory Server that includes built-in fail-over, load balancing, security and integration with Microsoft Corp.'s Active Directory.

Sun's Preventive Services is aimed at the data center and is an attempt at what McNealy called a more simplified way of pricing services than through complex outsourcing contracts. It includes a portfolio of more than 100 services that managers can use to find issues that might affect network performance and for which they pay one price.

In general, many of the new announcements also included references to other kinds of subscription-based pricing, which Sun officials see as a trend among users who increasingly don't want to own the technology themselves.

Other items introduced June 1 included an array of low-cost storage products, software to collect and manage data produced by radio-frequency identity systems and a pricing system aimed specifically at Third World and developing markets through which Sun's Java Enterprise System would be sold on a per-citizen basis using the United Nation's ranking for a country's development status.

Robinson is a freelance journalist based in Portland, Ore. He can be reached at hullite@mindspring.com.

GIET

Top

Set font to:

a. Heading 1 + 16 pt, Bold, Black
   i. Select the text you want to change.
   ii. On the **Format** menu open, click **Styles and Formatting** and select **Heading1.**
   iii. On the **Format** menu, click **Font**, and then click the **Font** tab and modify the **Font Size, Style and Color.**
b. Normal + Verdana, 9.5 pt, Bold, Italic, Dark Blue
   i. Select the text you want to change.
   ii. On the **Format** menu open, click **Styles and Formatting** and select **Normal.**
   iii. On the **Format** menu, click **Font**, and then click the **Font** tab and modify the **Font, Size, Style and Color.**
c. "nd" as superscript

        i. Select the text you want to change.
        ii. On the **Format** menu, click **Font**, and then click the **Font** tab and select the **Effect.**

2. Drop cap
    a. Click the paragraph that you want to begin with a "drop cap," a large dropped initial capital letter.
    b. On the **Format** menu, click **Drop Cap.**
    c. Click **Dropped.**

3. Set font to:
    a. Emboss and Text Color white
        i. Select the text you want to change.
        ii. On the **Format** menu, click **Font**, and then click the **Font** tab and select the **Effect and Font Color.**
    b. Grey text shading
        i. Select the text you want to change.
        ii. On the **Format** menu, click **Borders and Shading**, and then click the **Shading** tab.
        iii. Select Color and click OK.
        iv. Alternatively, use the shading button in the toolbar. Select the text and click on the toolbar.

4. Set font to:
    a. Normal + Verdana, Bold, Italic, Black
        i. Select the text you want to change.
        ii. On the **Format** menu open, click **Styles and Formatting** and select **Normal.**
        iii. On the **Format** menu, click **Font**, and then click the **Font** tab and modify the **Font, Size, Style and Color.**

5.Set font to:
    b. Raised and Expanded character spacing
        i. Select the text you want to change.
        ii. On the **Format** menu, click **Font**, and then click the **Character Spacing** tab and Click **Expanded** in the **Spacing** box, and then specify how much space you want in the **By** box.
    c. Border the given text
        i. Select the text you want to change.
        ii. On the **Format** menu, click **Borders and Shading**, and then click the **Borders** tab.
        iii. Click **Text** under **Apply to.**

6Strikethrough Font effect
    d. Select the text you want to change.
    e. On the **Format** menu, click **Font**, and then click the **Font** tab and select the **Effect.**

7Underline styling
    f. Select the text you want to change.
    g. On the **Format** menu, click **Font**, and then click the **Font** tab and select the **Underline Styles.**

8Outline Font
    h. Select the text you want to change.
    i. On the **Format** menu, click **Font**, and then click the **Font** tab and select the **Effect.**

9Paragraph indentation
    j. Justify With 1 Inch Right Margin
        i. Select the paragraphs in which you want to change spacing.
        ii. On the **Format** menu, click **Paragraph**, and then click the **Indents and Spacing** tab.
        iii. Modify **Alignment, Indentation and spacing.**

iv. View in the **Preview** section before applying.
v. Alternatively, the toolbar can be used for paragraph alignment.

k. Left Align
l. Justify With 1 Inch Right Margin
m. Center Align
n. Right Align

10Drop Cap Column

o. Click the paragraph that you want to begin with a "drop cap," a large dropped initial capital letter.
p. On the **Format** menu, click **Drop Cap.**
q. Right Click and select **Hyperlink.**
r. Under **Link to**, click **Place in This Document**. In the list, select the heading or bookmark you want to link to.

11Insert Date And Time In Footer

s. On the **View** menu, click **Header and Footer** to open the header or footer area on a page.
t. On the **Insert** menu, click **Date and Time.** Select the Date format and Check/Uncheck **Update Automatically** option and click OK.
u. When you finish, click **Close** on the **Header and Footer** toolbar

TASK2

JNT University

1

1

Job Performance Review Guide

Employee	
Employee Name	~~Review Period~~
Department	Manager
Performance goals and objectives	
Zero to 2 months	2 to 4 months
	4-6 months

2

Employee

Employee Name | ~~Review Period~~

Department | Manager

Become familiar with your department's business goals.	Make certain defined goals and criteria are realistic. Renegotiate if necessary.	Review performance goals to see if you are on target. Reprioritize work accordingly.
Work with your manager to define and document your goals. Include what you are expected to produce by your first review, activities needed to accomplish results, and success criteria.	Are you focusing your time on the goals you committed to? If not, either work with your manager to change your goals or reevaluate how you spend your time.	

3

Skills and knowledge development

Zero to 2 months	2 to 4 months	4-6 months
a. Understand the specific skills and knowledge you need. Use the job profile as your guide. b. Build a skill development plan based on the goals agreed to by you and your manager. c. Complete the new administrator orientation.	d. Attend one of the sessions in the Administrator certification program. See the training resource site for courses. e. Review your development plan and suggested curriculum for additional skills and training.	f. Attend at least one more session in the Administrator certification program. g. Create a timeline with associated tasks that you will follow in order to attain the skills outlined in your personal development plan.

4

NOTES/ACTIONS

5

Processes and Methods

Zero to 2 months	2 to 4 months	4-6 months
▪ Familiarize yourself with work processes and methods used in your job. Be clear on who owns those processes and how you can support process goals. ▪ Set clear timelines for task due dates. Keep timelines up to date.	Identify and eliminate unnecessary variation in the way you perform work processes. Ensure that your work responsibilities are clear, defined, and realistic.	Get to know the people who work cross-functionality in common work processes. Seek to simplify any work processes in order to cut cycle time.

6

Feedback[1]

Zero to 2 months	2 to 4 months	4-6 months
Understand the different types of feedback and the ways in which you will receive feedback.	Are you getting the feedback you need? Is feedback timely, specific, and frequent? Compare actual performance and expected performance.	❖ Are you giving feedback to others who need it? ❖ Compare actual and expected performance.

7

HELP

1. Table:
   a. Border Style 8
      i. Select table
      ii. On the **Format** menu, click **Borders and Shading**, and then click the **Borders** tab
      iii. Click **Paragraph** under **Apply to**, click **Options**, and then select the options you want.
   b. Cells Split
      i. On the **Table** menu, click **Split Cells**

[1]Kindly provide your feedback.

ii. Select the number of columns or rows you want to split the selected cells into.

c. Cells Merge

i. Select cell to merge

ii. On the **Table** menu, click **Merge Cells**

.

2. Paragraph Border
   a. Select Paragraph
   b. On the **Format** menu, click **Borders and Shading**, and then click the **Borders** tab
   c. Click **Paragraph** under **Apply to**, click **Options**, and then select the options you want.
3. Bullets and numbering
   a. Select the text that you want to change
   b. On the **Formatting** toolbar, click **Bullets** and **Numbering**
   c. In numbers tab choose style and click on continue previous list.
4. Paragraph Bordering
   a. Select Paragraph
   b. On the **Format** menu, click **Borders and Shading**, and then click the **Borders** tab
   c. Click **Paragraph** under **Apply to**, click **Options**, and then select the options you want.
5. Bullets
   a. Select the text that you want to change
   b. On the **Formatting** toolbar, click **Bullets** and **Numbering**
   c. In bulleted tab choose style.
6. Text Direction
   a. Click the table cell that contains the text you want to change
   b. On the **Format** menu, click **Text Direction** and Click the orientation you want
7. Cell Alignment
   a. Click the cell that contains text you want to align
   b. On the **Tables and Borders** toolbar, select the option for the horizontal and vertical alignment you want— for example, **Align Bottom Center** or **Align Top Right**
8. Footnote
   a. On the **Insert** menu, point to **Reference**, and then click **Footnote**
   b. In the **Number format** box, click the format you want and click **Insert.**

TASK3

Feedback Form

1

Date: 6/12/2014

Faculty Name: Vengal Rao Subject: DSP Year/Semester: III/IV 1st Sem

5

Optional

Student Name: Roll Number: Branch: CSE

2

2

3

Review Guidelines

mplete this peer review, using the following scale:

NA = Not Applicable
1 = Unsatisfactory
2 = Marginal
3 = Meets Requirements
4 = Exceeds Requirements
5 = Exceptional

Evaluation

	(5) = Exceptional	(4) = Exceeds Requirements	(3) = Meets Requirements	(2) = Marginal	(1) = Unsatisfactory
quired Skills And Knowledge in the ass	☐	☐	☐	☐	☐
sponse To Questions	☐	☐	☐	☐	☐
ility To Learn And Teach New Skills	☐	☐	☐	☐	☐
glish Speaking Skills	☐	☐	☐	☐	☐
king Students To Involve In The ass	☐	☐	☐	☐	☐

1. Insert Date from "**Date and Time**" Option.
2. Form Field – **Text Form Field**
    a. To display the **Forms** toolbar, point to **Toolbars** on the **View** menu, and then click **Forms**.
    b. In the document, click where you want to insert the form field.
    c. Click **Text Form Field.**
3. Form Field – **Drop-Down Form Field**
    a. In the document, click where you want to insert the form field.
    b. Click **Drop-Down Form Field.**
    c. If needed, a user can scroll through the list to view additional choices.
    d. To edit these fields, you must use the **Form Field Options** button on the **Forms** toolbar.
4. Form Field – **Check Box Form Field**
    a. In the document, click where you want to insert the form field.
    b. Click Check Box Form Field.
    c. To edit these fields, you must use the **Form Field Options** button on the **Forms** toolbar.
5. Mail Merge
    a. On the **Tools** menu, point to **Letters and Mailings**, and then click **Mail Merge**.
    b. Word displays the **Mail Merge** task pane.
    c. Select type as "**Letters**" and click "**Next: Starting Document".**
    d. Click **Use the current document**, and Click "**Next: Select recipients"**.
    e. Under **Select recipients**, click **Use an existing list**.
    f. Click **Browse.**
    g. In the **Select Data Source** dialog box, locate and click the data source you want.
    h. Browse for the given **"List.txt"** file., and Click **Open.**
    i. All of the entries in the data source appear in the **Mail Merge Recipients** dialog box, where you can refine the list of recipients to include in the merge.
    j. Click **Next: Write your letter**.
    k. Click on the location where you want to put a merge field. Click on more items.
    l. Select and Insert the merge field at that location.
    m. Click **Next: Preview your letters**.
    n. To preview the items in order, click the arrow buttons.
    o. To exclude a particular recipient from the merge, click **Exclude this recipient**.
    p. Click **Next: Complete the merge**.
    q. You can either **print** all the letters or **Edit individual letters**
        i. Click **Edit individual letters**.
        ii. To merge all the documents, click **All**.
        iii. Save it to a separate document for future use.

Note: Before you can make a form available to users, you must protect it by clicking **Protect Form** on the **Forms** toolbar. Protection allows users to fill in the form but prevents them from changing the form's layout and its standard elements.

TASK4

The Title Goes Here With Each Initial Letter Capitalized

Author's Name

1

Replace this text with Author's Affiliation

TABLE OF CONTENTS

INTRODUCTION 81

FIRST LEVEL HEADING (HEADING 1) 81

SECOND LEVEL HEADING (HEADING 2) WITH EACH INITIAL LETTER CAPITALIZED 82

Third Level Heading (Heading 3) With Each Initial Letter Capitalized 82

ACKNOWLEDGMENTS ..... **ERROR! BOOKMARK NOT DEFINED.**

REFERENCES ..... **ERROR! BOOKMARK NOT DEFINED.**

Chapter 1

Abstract

2

Do not replace the word “abstract,” but do replace the rest of this text. If you must insert a hard line break, please use Shift+Enter rather than just tapping your "Enter" key. You may want to print this page and refer to it as a style sample before you begin working on your paper.

2

INTRODUCTION

The first Heading of your manuscript must use the style “INTRODUCTION.” Otherwise, your paragraph spacing will be off.

2

FIRST LEVEL HEADING (HEADING 1)

This is the standard font and layout for the individual paragraphs. The style is called "Paragraph." Replace this text with your text. The "Enter" key will take you to a new paragraph. If you need to insert a hard line break within the paragraph, please use Shift+Enter, rather than just tapping the "Enter" key. This is the paragraph spacing that occurs when you use the Enter key.

Second Level Heading (Heading 2) With Each Initial Letter Capitalized

This is the standard font and layout for the individual paragraphs. The style is called "Paragraph." Replace this text with your text. The "Enter" key will take you to a new paragraph. If you need to insert a hard line break within the paragraph, please use Shift+Enter, rather than just tapping the "Enter" key.

This is the paragraph spacing that occurs when you use the Enter key.

Third Level Heading (Heading 3) With Each Initial Letter Capitalized

This is the standard font and layout for the individual paragraphs. The style is called "Paragraph." Replace this text with your text. The "Enter" key will take you to a new paragraph. If you need to insert a hard line break within the paragraph, please use Shift+Enter, rather than just tapping the "Enter" key.

This is the paragraph spacing that occurs when you use the Enter key.

REPLACE THIS TEXT WITH FIGURE GRAPHIC

FIGURE 1. This is the Style for Figure Captions. Center this if it doesn't run for more than one line.

To insert a footnote, use the "Insert" menu, select "Footnote", and click "OK"

Below is an example equation created with Word Equation Editor. To move this equation, highlight the entire line, then use cut and paste to the new location. To use this as a template, select the entire line, then use copy and paste to place the equation in the new location.

$$\frac{\partial x}{\partial y} = \left| \begin{array}{c} a \\ \\ \end{array} \right. \qquad (1)$$

3

This is example text; you can type anything you want. This is example text; you can type anything you want. This is example text, you can type anything you want. This is example text, you can type anything you want. This is example text; you can type anything you want. This is example text; you can type anything you want., This is example text; you can type anything you want. This is example text; you can type anything you want. This is example text; you can type anything you want. This is example text; you can type anything you want.

Insert an image / table / object here.

This is example text; you can type anything you want. This is example text; you can type anything you want. This is example text; you can type anything you want. This is example text; you can type anything you want. This is example text; you can type anything you want. This is example text; you can type anything you want. This is example text; you can type anything you want. This is example text; you can type anything you want. This is example text; you can type anything you want. This is example text; you can type anything you want. This is example text; you can type anything you want.

Help

1. Applying your new style for Text.
    a. Click **Styles and Formatting** on the **Formatting** toolbar.
    b. In the **Styles and Formatting** task pane, click **New Style**.
    c. In the **Name** box, type a name for the style.
    d. In the **Style type** box, click **Paragraph**, **Character**, **Table**, or **List** to specify the kind of style you are creating.
    e. Select the options that you want, or click **Format** to see more options.
2. Applying your new style for Text or Apply Existing style for text.
3. Inserting Microsoft Equation
    a. Click where you want to insert the equation.
    b. On the **Insert** menu, click **Object**, and then click the **Create New** tab.
    c. In the **Object type** box, click **Microsoft Equation 3.0**. (If Microsoft Equation Editor is not available, you may need to install it.)
    d. Click **OK**.
4. Inserting a table of contents
    a. Click where you want to insert the table of contents.
    b. On the **Insert** menu, point to **Reference**, and click **Index and Tables**.
    c. Click the **Table of Contents** tab.
    d. To use one of the available designs, click a design in the **Formats** box.
    e. Click **Options**.
    f. Under **Available styles**, find a style you've applied to headings in your document.
    g. Under **TOC level**, to the right of the style name, enter a number from 1 to 9 to indicate the level you want that heading style to represent.

Note If you want to use only custom styles, remove the TOC level numbers for the built-in styles, such as Heading 1.

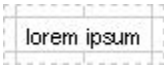
MICROSOFT Excel

TASK1

Microsoft Excel is a spreadsheet program. It features an intuitive interface, calculation and graphing tools. These tools could be used for business financial analysis and other administrative tasks. These features have made Excel one of the most popular microcomputer applications to date. In this module you will master Microsoft Excel.

Merge cells

When you merge two or more adjacent cells, the cells become one merged cell, and the contents of the upper-left cell are displayed in the center of the merged cell, as shown in the following example.



Text spread and centered over multiple cells

Important Only the data in the upper-left cell of a range (range: Two or more cells on a sheet. The cells in a range can be adjacent or nonadjacent.) of selected cells will remain in the merged cell. Data in other cells of the selected range will be deleted.

1. If the data that you want to display in the merged cell is not in the upper-left cell, do the following:
   1. Select the data that you want to display in the merged cell, and then click Copy on the Standard toolbar.
   2. Select the upper-left cell of the range of adjacent cells that you want to merge, and then click Paste on the Standard toolbar.
2. Select the cells that you want to merge.

   Note The cells that you select must be adjacent.

3. On the Formatting toolbar (toolbar: A bar with buttons and options that you can use to carry out commands. To display a toolbar, point to Toolbars on the View menu. If you don't see the button you want, click the arrows at the right end of the toolbar.), click Merge and Center.

   The cells will be merged in a row or column, and the cell contents will be centered in the merged cell.

   Note If the Merge and Center button is unavailable, the selected cell may be in editing mode. To cancel editing mode, press ENTER.

   5. To change the text alignment in the merged cell, select the cell, and then click Align Left or Align Right on the Formatting toolbar.

Enabling Border options

Using predefined border styles, you can quickly add a border around cells or ranges (range: Two or more cells on a sheet. The cells in a range can be adjacent or nonadjacent.) of cells.

1. To apply a new or different border style, click the arrow next to **Borders** on the **Formatting** toolbar, and then choose a border style from the palette.

   Tip To apply a custom border style or a diagonal border, click Cells on the Format menu. On the Border tab, click the line style and color that you want, and then click one or more buttons to indicate the border placement. Two diagonal border buttons are available under Border.

2. To remove cell borders, click the arrow next to Borders on the Formatting toolbar, and then click No Border on the palette.

AutoFill Data

Automatically repeat items already entered in the column

If the first few characters that you type in a cell match an existing entry in that column, Microsoft Excel automatically enters the remaining characters for you. Excel automatically completes only those entries that contain text or a combination of text and numbers. Entries that contain only numbers, dates, or times are not completed.

Do one of the following:

1. To accept the proposed entry, press ENTER.
2. The completed entry exactly matches the pattern of uppercase and lowercase letters of the existing entry.
3. To replace the automatically entered characters, continue typing.
4. To delete the automatically entered characters, press BACKSPACE.

Use the fill handle to fill data

You can use the Series command (point to Fill on the Edit menu, and then click Series) to fill data into worksheet cells. You can also have Excel automatically continue a series of numbers, number and text combinations, dates, or time periods, based on a pattern that you establish. However, to quickly fill in several types of data series, you can select cells and drag the fill handle (fill handle: The small black square in the lower-right corner of the selection. When you point to the fill handle, the pointer changes to a black cross.) .

The fill handle is displayed by default, but you can hide it.

1. On the Tools menu, click Options.
2. On the Edit tab, do one of the following:
   - To hide the fill handle, clear the Allow cell drag and drop check box.
   - To display the fill handle, select the Allow cell drag and drop check box.

To avoid replacing existing data when you drag the fill handle, make sure that the Alert before overwriting cells check box is selected. If you don't want to get a message about overwriting nonblank cells, you can clear this check box.

Fill data into adjacent cells

1. Select the cells that contain the data that you want to fill into adjacent cells.
2. Drag the fill handle (fill handle: The small black square in the lower-right corner of the selection. When you point to the fill handle, the pointer changes to a black cross.) across the cells that you want to fill.
3. You can use the Auto Fill Options button , which appears after you drag the fill handle, to choose how to fill the selection. For example, you can choose Fill Formatting Only or Fill Without Formatting.

Fill formulas into adjacent cells

1. Select the cell that contains the formula that you want to fill into adjacent cells.
2. Drag the fill handle (fill handle: The small black square in the lower-right corner of the selection. When you point to the fill handle, the pointer changes to a black cross.) across the cells that you want to fill.
3. You can use the Auto Fill Options button , which appears after you drag the fill handle, to choose how to fill the selection. For example, you can choose Fill Formatting Only or Fill Without Formatting.

Fill in a series of numbers, dates, or other built-in series items

Using the fill handle (fill handle: The small black square in the lower-right corner of the selection. When you point to the fill handle, the pointer changes to a black cross.), you can quickly fill cells in a range with a series of numbers or dates or with a built-in series for days, weekdays, months, or years.

1. Select the first cell in the range that you want to fill.
2. Type the starting value for the series.
3. Type a value in the next cell to establish a pattern.
   For example, if you want the series 1, 2, 3, 4, 5..., type 1 and 2 in the first two cells. If you want the series 2, 4, 6, 8..., type 2 and 4. If you want the series 2, 2, 2, 2..., you can leave the second cell blank.
   More examples of series that you can fill

   When you fill a series, the selections are extended as shown in the following table. Items separated by commas are in placed in individual adjacent cells.

Initial selection	Extended series
1, 2, 3	4, 5, 6,...

4. Select the cell or cells that contain the starting values.
5. Drag the fill handle across the range that you want to fill.

   To fill in increasing order, drag down or to the right. To fill in decreasing order, drag up or to the left.

Fill data by using a custom fill series

To make entering a particular sequence of data (such as a list of names or sales regions) easier, you can create a custom fill series. A custom fill series can be based on a list of existing items on a worksheet, or you can type the list from scratch.

Use a custom fill series based on an existing list of items

1. On the worksheet, select the list of items that you want to use in the fill series.
2. On the Tools menu, click Options, and then click the Custom Lists tab.
3. Verify that the list of items that you selected is displayed in the Import list from cells box, and then click Import.
   The items in the list that you selected are added to the Custom lists box.
4. On the worksheet, click a cell, and then type the item in the custom fill series that you want to use to start the list.

5. Drag the fill handle (fill handle: The small black square in the lower-right corner of the selection. When you point to the fill handle, the pointer changes to a black cross.) across the cells that you want to fill.

Use a custom fill series based on a new list of items

1. On the Tools menu, click Options, and then click the Custom Lists tab.
2. In the Custom lists box, click New list, and then type the entries in the List entries box, beginning with the first entry.

   Press ENTER after each entry.

3. When the list is complete, click Add.
4. On the worksheet, click a cell, and then type the item in the custom fill series that you want to use to start the list.
5. Drag the fill handle across the cells that you want to fill.

Add, change, or remove conditional formats

1. Select the cells for which you want to add, change, or remove conditional formatting (conditional format: A format, such as cell shading or font color, that Excel automatically applies to cells if a specified condition is true.).
2. On the Format menu, click Conditional Formatting.
3. Do one of the following:

   Add a conditional format

   1. Do one of the following:
      To use values in the selected cells as the formatting criteria, click Cell Value Is, select the comparison phrase, and then type a constant (constant: A value that is not calculated and, therefore, does not change. For example, the number 210, and the text "Quarterly Earnings" are constants. An expression, or a value resulting from an expression, is not a constant.) value or a formula. If you enter a formula, start it with an equal sign (=).
      To use a formula as the formatting criteria (to evaluate data or a condition other than the values in selected cells), click Formula Is and then enter the formula that evaluates to a logical value of TRUE or FALSE.
   2. Click Format.
   3. Select the formatting you want to apply when the cell value meets the condition or the formula returns the value TRUE.
   4. To add another condition, click Add, and then repeat steps 1 through 3.

      You can specify up to three conditions. If none of the specified conditions are true, the cells keep their existing formats.

   Note Using multiple conditions If more than one specified condition is true, Microsoft Excel applies only the formats of the first true condition, even if more than one condition is true.

   Copy formats to other cells

   1. Select the cells that have the conditional formats you want to copy.
   2. On the Formatting toolbar (toolbar: A bar with buttons and options that you use to carry out commands. To display a toolbar, click Customize on the Tools menu, and then click the Toolbars tab.), click Format Painter , and then select the cells you want to format.

   Change or remove a conditional format

   Do one or more of the following:

   1. To change formats, click Format for the condition you want to change.
   2. To reselect formats on the current tab of the Format Cells dialog box, click Clear and select new formats.

3. To remove one or more conditions, click Delete, and then select the check box for the conditions you want to delete.

Tip

To remove all conditional formats as well as all other cell formats for selected cells, point to Clear on the Edit menu, and then click Formats.

Display numbers as dates or times

1. Select the cell or range (range: Two or more cells on a sheet. The cells in a range can be adjacent or nonadjacent.) or cells that you want to format.
2. On the Format menu, click Cells.
3. On the Number tab, in the Category list, click Date or Time.
4. In the Type list, click the format that you want to use.

   Dates or times that you type into formatted cells will be displayed in the format that you selected.

Custom date and time codes

Days, months, and years If you use "m" immediately after the "h" or "hh" code or immediately before the "ss" code, Microsoft Excel displays minutes instead of the month.

To display	Use this code
Months as 1–12	m

Hours, minutes, and seconds

To display	Use this code
Hours as 0–23	H

1.AM and PM If the format contains an AM or PM, the hour is based on the 12-hour clock, where "AM" or "A" indicates times from midnight until noon and "PM" or "P" indicates times from noon until midnight. Otherwise, the hour is based on the 24-hour clock. The "m" or "mm" code must appear immediately after the "h" or "hh" code or immediately before the "ss" code; otherwise, Microsoft Excel displays the month instead of minutes.

2.When you try to undo a date or time format by selecting General in the Category list, Excel displays a number code. When you enter a date or time again, Excel displays the default date or time format. To enter a specific date or time format, such as January 2005, you may want to format it as text by selecting Text in the Category list.

Apply or remove cell shading:

You can add shading to cells by filling them with solid colors or specific patterns.

1. Select the cells or ranges (range: Two or more cells on a sheet. The cells in a range can be adjacent or nonadjacent.) of cells that you want to apply shading to or remove shading from.
2. Do one of the following:
   - To fill cells with a solid color, click the arrow next to Fill Color on the Formatting toolbar (toolbar: A bar with buttons and options that you can use

to carry out commands. To display a toolbar, point to Toolbars on the View menu. If you don't see the button you want, click the arrows at the right end of the toolbar.), and then click the color that you want on the palette.

- To apply the most recently selected color, click Fill Color .
- To fill cells with a pattern, click Cells on the Format menu. On the Patterns tab, under Cell shading, click the background color that you want to use for the pattern. Then click the arrow next to the Pattern box, and click the pattern style and pattern color.
- To remove a fill color or fill pattern from selected cells or cell ranges, click the arrow next to Fill Color , and then click No Fill.

To calculate the Sum

Add numbers in a cell

You can add numbers as you type them into a cell. For example, type =5+10 in a cell to display the result 15.

Add all contiguous numbers in a row or column

You can use AutoSum to do this task.

1. Click a cell below the column of numbers or to the right of the row of numbers.
2. Click AutoSum on the Standard toolbar (toolbar: A bar with buttons and options that you use to carry out commands. To display a toolbar, click Customize on the Tools menu, and then click the Toolbars tab.), and then press ENTER.

TASK2

-

To Change the Text Orientation

For the optimal display of the data on your worksheet (worksheet: The primary document that you use in Excel to store and work with data. Also called a spreadsheet. A worksheet consists of cells that are organized into columns and rows; a worksheet is always stored in a workbook.), you may want to reposition the text within a cell. You can change the alignment of the cell contents, use indentation for better spacing, or display the data at a different angle by rotating it.

1. Select the cell or range (range: Two or more cells on a sheet. The cells in a range can be adjacent or nonadjacent.) of cells that contains the data that you want to reposition.
2. On the Format menu, click Cells.
3. On the Alignment tab, do one of the following:
   a. To change the horizontal alignment of the cell contents, click the alignment that you want in the Horizontal box.

To calculate the average

The average is also called the mean.

Calculate the average of numbers in a contiguous row or column

1. Click a cell below or to the right of the numbers for which you want to find the average.
2. Click the arrow next to AutoSum Σ on the Standard toolbar (toolbar: A bar with buttons and options that you use to carry out commands. To display a toolbar, click Customize on the Tools menu, and then click the Toolbars tab.), and then click Average, and then press ENTER.

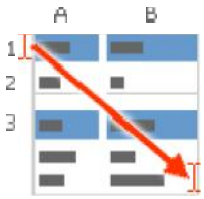
Calculate the average of numbers not in a contiguous row or column

Use the AVERAGE function to do this task.

Worksheet example

The example may be easier to understand if you copy it to a blank worksheet.

How?

1. Create a blank workbook or worksheet.
2. Select the example in the Help topic. Do not select the row or column headers.
3. 

4. Selecting an example from Help
5. Press CTRL+C.
6. In the worksheet, select cell A1, and press CTRL+V.

A
Data
10
7
9
27
0
4

Formula	Description (Result)
=AVERAGE(A2:A7)	Averages all of numbers in list above (9.5)
=AVERAGE(A2:A4,A7)	Averages the top three and the last number in the list (7.5)
=AVERAGE(IF(A2:A7<>0, A2:A7,""))	Averages the numbers in the list except those that contain zero, such as cell A6 (11.4)

7. To switch between viewing the results and viewing the formulas that return the results, press CTRL+‘ (grave accent), or on the Tools menu, point to Formula Auditing, and then click Formula Auditing Mode.

Note The last formula in the example must be entered as an array formula (array formula: A formula that performs multiple calculations on one or more sets of values, and then returns either a single result or multiple results. Array formulas are enclosed between braces { } and are entered by pressing CTRL+SHIFT+ENTER.). After copying the example to a blank worksheet, select the cell A11. Press F2, and then press CTRL+SHIFT+ENTER. If the formula is not entered as an array formula, the error #VALUE! is returned.

Function details

AVERAGE

Calculate a weighted average

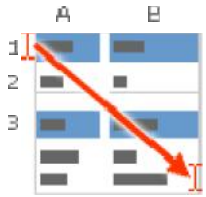
Use the SUMPRODUCT and SUM functions to do this task.

Worksheet example

The example may be easier to understand if you copy it to a blank worksheet.

How?

1. Create a blank workbook or worksheet.
2. Select the example in the Help topic. Do not select the row or column headers.



Selecting an example from Help

3. Press CTRL+C.

A	B
Price per unit	Number of units
20	500
25	750
35	200
Formula	Description (Result)
=SUMPRODUCT(A2:A4,B2:B4)/SUM(B2:B4)	Divides the total cost of all three orders by the total number of units ordered (24.66)

4. In the worksheet, select cell A1, and press CTRL+V.
5. To switch between viewing the results and viewing the formulas that return the results, press CTRL+ ‘ (grave accent), or on the Tools menu, point to Formula Auditing, and then click Formula Auditing Mode.

This example calculates the average price paid for a unit across three purchases, where each purchase is for a different number of units at a different price per unit.

Function details

SUM

SUMPRODUCT

Calculate the average of numbers, ignoring zero (0) values

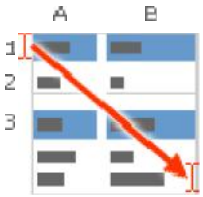
Use the AVERAGE and IF functions to do this task.

Worksheet example

The example may be easier to understand if you copy it to a blank worksheet.

How?

1. Create a blank workbook or worksheet.
2. Select the example in the Help topic. Do not select the row or column headers.



Selecting an example from Help

3. Press CTRL+C.

A
Data
10
7
9
27
0
4

Formula	Description (Result)
=AVERAGE(IF(A2:A7<>0, A2:A7,""))	Averages the numbers in the list except those that contain zero, such as cell A6 (11.4)

4. In the worksheet, select cell A1, and press CTRL+V.
5. To switch between viewing the results and viewing the formulas that return the results, press CTRL+‘ (grave accent), or on the Tools menu, point to Formula Auditing, and then click Formula Auditing Mode.

Function details

AVERAGE

IF

Returns the average (arithmetic mean) of the arguments.

Syntax
AVERAGE(number1,number2,...)
Number1, number2, ... are 1 to 30 numeric arguments for which you want the average.
Remarks

1. Arguments can either be numbers or names, arrays, or references that contain numbers.
2. Logical values and text representations of numbers that you type directly into the list of arguments are counted.
3. If an array or reference argument contains text, logical values, or empty cells, those values are ignored; however, cells with the value zero are included.
4. Arguments that are error values or text that cannot be translated into numbers cause errors.
5. If you want to include logical values and text representations of numbers in a reference as part of the calculation, use the AVERAGEA function.

To calculate the Standard Deviation

Syntax
STDEV(number1,number2,...)
Number1, number2, ... are 1 to 30 number arguments corresponding to a sample of a population. You can also use a single array or a reference to an array instead of arguments separated by commas.

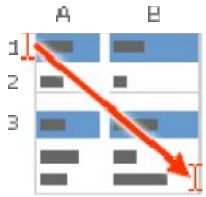
Example

Suppose 10 tools stamped from the same machine during a production run are collected as a random sample and measured for breaking strength.

The example may be easier to understand if you copy it to a blank worksheet.

How?

1. Create a blank workbook or worksheet.
2. Select the example in the Help topic. Do not select the row or column headers.



A
Strength
1345
1301
1368
1322
1310
1370
1318
1350
1303
1299

Formula	Description (Result)
=STDEV(A2:A11)	Standard deviation of breaking strength (27.46391572)

3. Selecting an example from Help
4. Press CTRL+C.
5. In the worksheet, select cell A1, and press CTRL+V.
6. To switch between viewing the results and viewing the formulas that return the results, press CTRL+ ‘ (grave accent), or on the Tools menu, point to Formula Auditing, and then click Formula Auditing Mode.

Estimates standard deviation based on a sample. The standard deviation is a measure of how widely values are dispersed from the average value (the mean).

Syntax

STDEVA(value1,value2,...)

Value1, value2, ... are 1 to 30 values corresponding to a sample of a population. You can also use a single array or a reference to an array instead of arguments separated by commas.

Remarks

1. STDEVA assumes that its arguments are a sample of the population. If your data represents the entire population, you must compute the standard deviation using STDEVPA.
2. The standard deviation is calculated using the "unbiased" or "n-1" method.
3. Arguments can be the following: numbers; names, arrays, or references that contain numbers; text representations of numbers; or logical values, such as TRUE and FALSE, in a reference.
4. Arguments that contain TRUE evaluate as 1; arguments that contain text or FALSE evaluate as 0 (zero).
5. If an argument is an array or reference, only values in that array or reference are used. Empty cells and text values in the array or reference are ignored.
6. Arguments that are error values or text that cannot be translated into numbers cause errors.
7. If you do not want to include logical values and text representations of numbers in a reference as part of the calculation, use the STDEV function.
8. STDEVA uses the following formula:
9. $$\sqrt{\frac{\sum (x-\bar{x})^2}{(n-1)}}$$
10. where x is the sample mean AVERAGE(value1,value2,...) and n is the sample size.

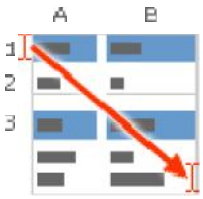
Example

Suppose 10 tools stamped from the same machine during a production run are collected as a random sample and measured for breaking strength.

The example may be easier to understand if you copy it to a blank worksheet.

How?

1. Create a blank workbook or worksheet.
2. Select the example in the Help topic. Do not select the row or column headers.



Selecting an example from Help

3. Press CTRL+C.
4. In the worksheet, select cell A1, and press CTRL+V.
5. To switch between viewing the results and viewing the formulas that return the results, press CTRL+ ‘ (grave accent), or on the Tools menu, point to Formula Auditing, and then click Formula Auditing Mode.

To create a Chart

You can quickly create a chart in Microsoft Excel by using the Chart Wizard. In this wizard, you can choose from a variety of chart types and specify various chart options. Although worksheet (worksheet: The primary document that you use in Excel to store and work with data. Also called a spreadsheet. A worksheet consists of cells that are organized into columns and rows; a worksheet is always stored in a

workbook.) data that you want to plot in a chart can be located in rows or columns, some chart types require a specific arrangement of the data before you can create a chart. For more information about chart types, see Available chart types.

1. On the worksheet, arrange the data that you want to plot in a chart.

How to arrange data for different chart types

- For a column, bar, line, area, surface or radar chart, you should arrange the data in columns or rows.

- Data in columns:

Lorem	Ipsum
1	2
3	4

- Data in rows:

Lorem	1	3
Ipsum	2	4

- For a pie or doughnut chart with only one series of data, you should arrange the data in one column or row only.

- One column of data and one column of data labels:

A	1
B	2
C	3

- One row of data and one row of data labels:

A	B	C
1	2	3

- For a pie chart or doughnut chart that has more than one series of data, you can arrange the data in more than one column or row.

- More than one column of data:

A	1	2
B	3	4
C	5	6

- More than one row of data:

A	B	C
1	2	3
4	5	6

- For an xy (scatter) or bubble chart, you can arrange the data in columns, so that x values are listed in the first column and

corresponding y values and/or bubble size values are listed in adjacent columns.

- Data in columns:

X	Y	Bubble
1	2	3
4	5	6

  - For a stock chart, you need to arrange data in the following order (in rows or columns): high values, low values, and closing values. Use names or dates as labels.

- Data in columns:

Date	High	Low	Close
1/1/2002	46.125	42	44.063

2. Select the cells that contain the data that you want to use for the chart.
3. Tip If the cells that you want to select for the chart are not in a continuous range, select the first group of cells that contain the data that you want to include. Hold down CTRL, and then select any additional cell groups that you want to include. The nonadjacent selections must form a rectangle.
4. The nonadjacent selections ...

	1997	1998
Japan	4.3	4.9
Korea	2.7	4.2
China	3.9	4.6

... are treated as a single rectangular range.

	1997	1998
Japan	4.3	4.9
China	3.9	4.6

5. Click Chart Wizard on the Standard toolbar, or click Chart on the Insert menu.
6. Follow the instructions in the Chart Wizard.
7. For information about the Chart Wizard options, click Help in the title bar of the wizard.

Tips

To quickly create a basic chart that is displayed on a separate chart sheet (chart sheet: A sheet in a workbook that contains only a chart. A chart sheet is beneficial when you want to view a chart or a PivotChart report separately from worksheet data or a PivotTable report.), select the data that you want to use for the chart, and then press ALT+F1 or F11.

If you use a specific chart type frequently when you create a chart, you may want to set that chart type as the default chart type.

Change the default chart type

1. Click anywhere in the chart area (chart area: The entire chart and all its elements.) to select the chart.
2. On the Chart menu, click Chart Type.
3. On the Standard Types tab or Custom Types tab, in the Chart type list, click the chart type that you want or accept the current selection, and then click Set As Default Chart.
4. Click Yes, and then click OK.

5. If the Add Custom Chart Type dialog box appears, type a name in the Name box and a description in the Description box, and then click OK.

Notes

1. When you create a chart, the Chart toolbar is displayed and the Chart menu is added to the menu bar. You can use the toolbar buttons and menu commands to modify the chart. For example, use the toolbar to select specific items in the chart, change the chart type, make formatting changes, show or hide the legend or data table, or switch between displaying the data series by row and displaying it by column. The Chart menu allows you to make changes to the source data, add data to the chart, specify numerous chart options, change the location of the chart, and apply 3-D effects. The Chart menu does not, however, provide a command for creating a chart.
2. The Chart toolbar can also be displayed (or hidden) at any time by pointing to Toolbars on the View menu, and then clicking Chart. If you display the Chart toolbar before you create a chart, you can use it to create a chart. Select the cells that contain the data that you want to use in the chart, and then click Chart Type on the Chart toolbar. The chart will be displayed in the selected chart type on the same worksheet.

This is also called a 3-D reference (3-D reference: A reference to a range that spans two or more worksheets in a workbook.).

1. On the Insert menu, point to Name, and then click Define.
2. In the Names in workbook box, type the name.
3. If the Refers to box contains a reference, select the equal sign (=) and the reference and press BACKSPACE.
4. In the Refers to box, type = (equal sign).
5. Click the tab for the first worksheet to be referenced.
6. Hold down SHIFT and click the tab for the last worksheet to be referenced.
7. Select the cell or range of cells to be referenced.

A reference identifies a cell or a range of cells on a worksheet and tells Microsoft Excel where to look for the values or data you want to use in a formula. With references, you can use data contained in different parts of a worksheet in one formula or use the value from one cell in several formulas. You can also refer to cells on other sheets in the same workbook, and to other workbooks. References to cells in other workbooks are called links.

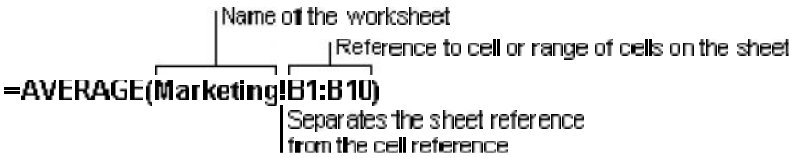
The A1 reference style

By default, Excel uses the A1 reference style, which refers to columns with letters (A through IV, for a total of 256 columns) and refers to rows with numbers (1 through 65536). These letters and numbers are called row and column headings. To refer to a cell, enter the column letter followed by the row number. For example, B2 refers to the cell at the intersection of column B and row 2.

To refer to	Use
The cell in column A and row 10	A10
The range of cells in column A and rows 10 through 20	A10:A20
The range of cells in row 15 and columns B through E	B15:E15
All cells in row 5	5:5

All cells in rows 5 through 10	5:10
All cells in column H	H:H
All cells in columns H through J	H:J
The range of cells in columns A through E and rows 10 through 20	A10:E20

Reference to another worksheet In the following example, the AVERAGE worksheet function calculates the average value for the range B1:B10 on the worksheet named Marketing in the same workbook.

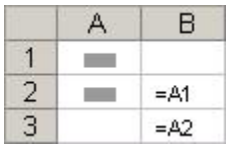


Link to another worksheet in the same workbook

Note that the name of the worksheet and an exclamation point (!) precede the range reference.

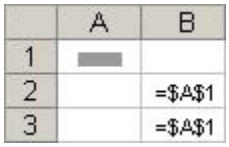
The difference between relative and absolute references

Relative references A relative cell reference in a formula, such as A1, is based on the relative position of the cell that contains the formula and the cell the reference refers to. If the position of the cell that contains the formula changes, the reference is changed. If you copy the formula across rows or down columns, the reference automatically adjusts. By default, new formulas use relative references. For example, if you copy a relative reference in cell B2 to cell B3, it automatically adjusts from =A1 to =A2.



Copied formula with relative reference

Absolute references An absolute cell reference in a formula, such as $A$1, always refer to a cell in a specific location. If the position of the cell that contains the formula changes, the absolute reference remains the same. If you copy the formula across rows or down columns, the absolute reference does not adjust. By default, new formulas use relative references, and you need to switch them to absolute references. For example, if you copy a absolute reference in cell B2 to cell B3, it stays the same in both cells =$A$1.



Copied formula with absolute reference

Mixed references A mixed reference has either an absolute column and relative row, or absolute row and relative column. An absolute column reference takes the form $A1, $B1, and so on. An absolute row reference takes the form A$1, B$1, and so on. If the position of the cell that contains the formula changes, the relative reference is changed, and the absolute reference does not change. If you copy the formula across rows or down columns, the relative reference automatically adjusts,

and the absolute reference does not adjust. For example, if you copy a mixed reference from cell A2 to B3, it adjusts from =A$1 to =B$1.

	A	B	C
1			
2		=A$1	
3			=B$1

Copied formula with mixed reference

The 3-D reference style

If you want to analyze data in the same cell or range of cells on multiple worksheets within the workbook, use a 3-D reference. A 3-D reference includes the cell or range reference, preceded by a range of worksheet names. Excel uses any worksheets stored between the starting and ending names of the reference. For example, =SUM(Sheet2:Sheet13!B5) adds all the values contained in cell B5 on all the worksheets between and including Sheet 2 and Sheet 13.

You can use 3-D references to refer to cells on other sheets, to define names, and to create formulas by using the following functions: SUM, AVERAGE, AVERAGEA, COUNT, COUNTA, MAX, MAXA, MIN, MINA, PRODUCT, STDEV, STDEVA, STDEVP, STDEVPA, VAR, VARA, VARP, and VARPA.

3-D references cannot be used in array formulas (array formula: A formula that performs multiple calculations on one or more sets of values, and then returns either a single result or multiple results. Array formulas are enclosed between braces { } and are entered by pressing CTRL+SHIFT+ENTER.).

3-D references cannot be used with the intersection operator (operator: A sign or symbol that specifies the type of calculation to perform within an expression. There are mathematical, comparison, logical, and reference operators.) (a single space) or in formulas that use implicit intersection (implicit intersection: A reference to a range of cells, instead of a single cell, that is calculated like a single cell. If cell C10 contains the formula =B5:B15*5, Excel multiplies the value in cell B10 by 5 because cells B10 and C10 are in the same row.).

How 3-D references change when you move, copy, insert, or delete worksheets

The following examples explain what happens when you move, copy, insert, or delete worksheets that are included in a 3-D reference. The examples use the formula =SUM(Sheet2:Sheet6!A2:A5) to add cells A2 through A5 on worksheets 2 through 6.

Insert or copy If you insert or copy sheets between Sheet2 and Sheet6 (the endpoints in this example), Microsoft Excel includes all values in cells A2 through A5 from the added sheets in the calculations.

Delete If you delete sheets between Sheet2 and Sheet6, Excel removes their values from the calculation.

Move If you move sheets from between Sheet2 and Sheet6 to a location outside the referenced sheet range, Excel removes their values from the calculation.

Move an endpoint If you move Sheet2 or Sheet6 to another location in the same workbook, Excel adjusts the calculation to accommodate the new range of sheets between them.

Delete an endpoint If you delete Sheet2 or Sheet6, Excel adjusts the calculation to accommodate the range of sheets between them.

Objective:

To learn about

a. How to use nested functions?

b. What are the logical operators and how can I use them for manipulating data?

by implementing a Capital gains and loss_worksheet.

Description:

This task requires you to implement and learn how to

1. To create Nested functions
2. To make use of logical operators

Task2 Assignment

Step By Step Guide:

To use Nested Functions

In certain cases, you may need to use a function as one of the arguments (argument: The values that a function uses to perform operations or calculations. The type of argument a function uses is specific to the function. Common arguments that are used within functions include numbers, text, cell references, and names.) of another function. For example, the following formula uses a nested AVERAGE function and compares the result with the value 50.

Nested functions

=IF(AVERAGE(F2:F5)>50,SUM(G2:G5),0)

Valid returns When a nested function is used as an argument, it must return the same type of value that the argument uses. For example, if the argument returns a TRUE or FALSE value, then the nested function must return a TRUE or FALSE. If it doesn't, Microsoft Excel displays a #VALUE! error value.
Nesting level limits A formula can contain up to seven levels of nested functions. When Function B is used as an argument in Function A, Function B is a second-level function. For instance, the AVERAGE function and the SUM function are both second-level functions because they are arguments of the IF function. A function nested within the AVERAGE function would be a third-level function, and so on

To use Nested Functions

You can use the AND, OR, NOT, and IF function to create conditional formulas. The IF function uses the following arguments.

1 2 3

=IF(logical_test,value_if_true,value_if_false)

Formula with the IF function

1 logical_test: the condition you want to check

2 value_if_true: the value to return if the condition is true

3 value_if_false: the value to return if the condition is false

A
Data
15
9
8
Sprockets
Widgets

Formula	Description (Result)
=AND(A2>A3, A2<A4)	Is 15 greater than 9 and less than 8? (FALSE)
=OR(A2>A3, A2<A4)	Is 15 greater than 9 or less than 8? (TRUE)
=NOT(A2+A3=24)	Is 15 plus 9 not equal to 24? (FALSE)
=NOT(A5="Sprockets")	Is A5 not equal to "Sprockets"? (FALSE)
=OR(A5<>"Sprockets",A6 = "Widgets")	Is A5 not equal to "Sprockets" or A6 equal to "Widgets"? (TRUE)

A
Data
15
9
8
Sprockets
Widgets

Formula	Description (Result)
=IF(A2=15, "OK", "Not OK")	If the value in cell A2 equals 15, then return "OK". (OK)
=IF(A2<>15, "OK", "Not OK")	If the value in cell A2 is not equal to 15, then return "OK". (Not OK)

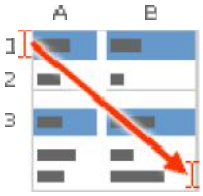
Create a conditional formula that results in a logical value (TRUE or FALSE)

Use the AND, OR, and NOT functions, and operators (operator: A sign or symbol that specifies the type of calculation to perform within an expression. There are mathematical, comparison, logical, and reference operators.) to do this task, as presented in the following example worksheet.

The example may be easier to understand if you copy it to a blank worksheet.

How?

1. Create a blank workbook or worksheet.
2. Select the example in the Help topic. Do not select the row or column headers.



Selecting an example from Help

3. Press CTRL+C.
4. In the worksheet, select cell A1, and press CTRL+V.
5. To switch between viewing the results and viewing the formulas that return the results, press CTRL+ ‘ (grave accent), or on the Tools menu, point to Formula Auditing, and then click Formula Auditing Mode.

Create a conditional formula that results in another calculation, or values other than TRUE or FALSE

Use the IF, AND, and OR functions to do this task, as presented in the following example worksheet.

TASK3

To calculate the NPV (Net Present Value)

Calculates the net present value of an investment by using a discount rate and a series of future payments (negative values) and income (positive values).

Syntax
NPV(rate,value1,value2, ...)
Rate is the rate of discount over the length of one period.
Value1, value2, ... are 1 to 29 arguments representing the payments and income.

1. Value1, value2, ... must be equally spaced in time and occur at the end of each period.
2. NPV uses the order of value1, value2, ... to interpret the order of cash flows. Be sure to enter your payment and income values in the correct sequence.
3. Arguments that are numbers, empty cells, logical values, or text representations of numbers are counted; arguments that are error values or text that cannot be translated into numbers are ignored.
4. If an argument is an array or reference, only numbers in that array or reference are counted. Empty cells, logical values, text, or error values in the array or reference are ignored.

Remarks

1. The NPV investment begins one period before the date of the value1 cash flow and ends with the last cash flow in the list. The NPV calculation is based on future cash flows. If your first cash flow occurs at the beginning of the first period, the first value must be added to the NPV result, not included in the values arguments. For more information, see the examples below.
2. If n is the number of cash flows in the list of values, the formula for NPV is:
3. $$\mathrm{NPV} = \sum_{i=1}^{n} \frac{values_i}{(1+rate)^i}$$
4. NPV is similar to the PV function (present value). The primary difference between PV and NPV is that PV allows cash flows to begin either at the end or at the beginning of the period. Unlike the variable NPV cash flow values, PV cash flows must be constant throughout the investment. For information about annuities and financial functions, see PV.
5. NPV is also related to the IRR function (internal rate of return). IRR is the rate for which NPV equals zero: NPV(IRR(...), ...) = 0.

To make use of the Split panes

1. At the top of the vertical scroll bar or at the right end of the horizontal scroll bar, point to the split box.
2. When the pointer changes to a split pointer, drag the split box down or to the left to the position you want.

TASK4

To create a new Worksheets

Add a single worksheet

1. Click Worksheet on the Insert menu.

Add multiple worksheets

Determine the number or worksheets you want to add.

1. Hold down SHIFT, and then select the same number of existing worksheet tabs that you want to add in the open workbook.
2. Example: If you want to add three new worksheets, select three existing worksheet tabs.
3. Click Worksheet on the Insert menu.

Insert a new sheet that's based on a custom template

You must have already created a custom sheet template.

How?

1. Decide which type of template you want:

   Workbook template
   Create a workbook that contains the sheets, default text (such as page headers and column and row labels), formulas, macros (macro: An action or a set of actions you can use to automate tasks. Macros are recorded in the Visual Basic for Applications programming language.), styles (style: A combination of formatting characteristics, such as font, font size, and indentation, that you name and store as a set. When you apply a style, all of the formatting instructions in that style are applied at one time.), and other formatting you want in new workbooks based on the template.

   Worksheet template
   Create a workbook that contains one worksheet. On the worksheet, include the formatting, styles (style: A combination of formatting characteristics, such as font, font size, and indentation, that you name and store as a set. When you apply a style, all of the formatting instructions in that style are applied at one time.), text, and other information you want to appear on all new sheets of the same type.

2. To display a picture of the first page of a template in the Preview box of the Templates dialog box (General Templates..., New Workbook task pane), click Properties on the File menu, click the Summary tab, and then select the Save preview picture check box.

3. On the File menu, click Save As.

4. In the Save as type box, click Template.

5. In the Save in box, select the folder where you want to store the template.

   1. To create the default workbook template (default workbook template: The Book.xlt template that you create to change the default format of new workbooks. Excel uses the template to create a blank workbook when you start Excel or create a new workbook without specifying a template.) or default worksheet template (default worksheet template: The Sheet.xlt template that you create to change the default format of new worksheets. Excel uses the template to create a blank worksheet when you add a new worksheet to a workbook.), select either the XLStart folder or the alternate startup folder (alternate startup folder: A folder in addition to the XLStart folder that contains workbooks or other files that you want to be opened automatically when you start Excel and templates that you want to be available when you create new workbooks.). The XLStart folder is usually

      C:\Program Files\Microsoft Office\Office11\XLStart

   2. To create a custom workbook or worksheet template, select the Templates folder, which is usually

      C:\Documents and Settings\user_name\Application Data\Microsoft\Templates

6. Enter the name of the template in the File name box. Do one of the following:

   Workbook template

   1. Type book to create the default workbook template.
   2. To create a custom workbook template, type any valid file name.

   Worksheet template

   1. Type sheet to create a template for default worksheets.
   2. To create a custom sheet template, type any valid file name.

7. Click Save, and then click Close on the File menu.

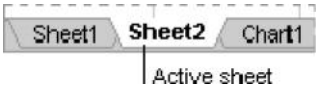
To insert a new worksheet

1. Right-click a sheet tab, and then click Insert.
2. Double-click the template for the type of sheet you want.

The name (or title) of a worksheet (worksheet: The primary document that you use in Excel to store and work with data. Also called a spreadsheet. A worksheet consists of cells that are organized into columns and rows; a worksheet is always stored in a workbook.) appears on its sheet tab on the Sheet tab bar at the bottom of the screen. By default, the name is Sheet1, Sheet2, and so on, but you can give your worksheet a more appropriate name.

1. To rename the active sheet, do one of the following:

- On the Format menu, point to Sheet and then click Rename.
- On the Sheet tab bar, right-click the tab you want to rename, and then click Rename.



2. Type the new name over the current name.

Tip You can include the name of the sheet when you print the worksheet. On the View menu, click Header and Footer, and then, in the Page Setup dialog box on the Header/Footer tab, click Custom Header or Custom Footer. In the Left

section, Center section, or Right section box, enter the sheet tab by clicking Tab in the row of buttons in the Header or Footer dialog box.

To create a hyperlink to a specific location in a workbook

To link to a location in the current workbook or another workbook, you can either define a name (name: A word or string of characters that represents a cell, range of cells, formula, or constant value. Use easy-to-understand names, such as Products, to refer to hard to understand ranges, such as Sales!C20:C30.) for the destination (destination: General term for the name of the element you go to from a hyperlink.) cells or use a cell reference.

1. To use a name, name the destination cells in the destination workbook.
   How?
   1. Select the cell, range of cells, or nonadjacent selections (nonadjacent selection: A selection of two or more cells or ranges that don't touch each other. When plotting nonadjacent selections in a chart, make sure that the combined selections form a rectangular shape.) that you want to name.
   2. Click the Name box at the left end of the formula bar (formula bar: A bar at the top of the Excel window that you use to enter or edit values or formulas in cells or charts. Displays the constant value or formula stored in the active cell.) .

      1 Name box

   3. Type the name for the cells.
   4. Press ENTER.

   Note You cannot name a cell while you are changing the contents of the cell.

2. In the source (source file: The file that contains information that was used to create a linked or embedded object. When you update the information in the source file, you can also update the linked object in the destination file.) workbook, right-click the text or graphic you want to represent the hyperlink (hyperlink: Colored and underlined text or a graphic that you click to go to a file, a location in a file, a Web page on the World Wide Web, or a Web page on an intranet. Hyperlinks can also go to newsgroups and to Gopher, Telnet, and FTP sites.), and then click Hyperlink on the shortcut menu.
3. Do one of the following:
   1. To link to a location in your current workbook, click Place in this document under Link to.
   2. To link to a location in another workbook, click Existing file or Web page under Link to.
4. If you chose Existing file or Web page, locate and select the workbook you want to link to, and then click the Bookmark button.
5. Do one of the following:
   1. In the list under Cell Reference, click the sheet you want to link to, and then type the cell reference in the Type in the cell reference box. Click OK.
   2. In the list under Defined Names, click the name that represents the cells you want to link to. Click OK.
6. To assign a tip to be displayed when you rest the pointer on the hyperlink, click ScreenTip and then type the text you want in the ScreenTip text box. Click OK.

To use HLookup and VLookup functions

We use HLookup and VLookup to find records in large worksheets, explained the basics of using the HLOOKUP and VLOOKUP functions in Microsoft Excel to find records in a large worksheet. This column explains several other ways to use those functions.

Use relative and absolute cell references to return multiple results

The instance of VLOOKUP that you created in the previous section contains a reference to Cell F3. Excel calls that type of reference a relative reference, meaning that if you copy the formula down or across a range of cells, Excel automatically increases the cell reference by 1 for each new instance of the formula. If any of those instances of the formula reference empty cells, Excel displays the #N/A error.

In contrast, absolute cell references do not change when you copy them down or across a range of cells, so using them can help you avoid #N/A errors. The following steps demonstrate how relative cell references can cause #N/A errors, and how absolute references can fix them.

1. On the Page Views worksheet, copy and paste or type this formula into Cell D4:

   =VLOOKUP(A4,Pages!A2:B39,2,false)

2. Click Cell D4, rest your mouse pointer on the lower-right corner of the cell until it changes to a black plus sign (+), and then drag the mouse pointer down to Cell D41. The page names that correspond to each ID appear in Column D.

At this point, #N/A appears in several cells. What happened? If you click cells in Column D, you see that Excel also increased the cell references by one after the word Pages! in the formula. (In case you haven't read the previous article, "Pages!A2:B39" is called the table array argument. For more information about the argument, read the previous article.) In other words, the formula in Cell D4 references Cells A2 through B39 on the Pages worksheet, which is what you want. But look at the formula associated with Cell D5: It references Cells A3 through B40. If you go back to the Pages worksheet, you'll see that Cell B40 is empty. Excel returns the #N/A message because some instances of the formula contain references to empty cells.

To work around the problem, use absolute cell references. Absolute references prevent Excel from changing cell references in a formula when you copy that formula. Follow these steps:

1. In the Page Views worksheet, clear Cells D5 through D41.
2. In Cell D4 (or the formula bar, if that's easier), add dollar signs to the formula as shown:

   =VLOOKUP(A4,Pages!$A$2:$B$39,2,FALSE)

   The dollar signs make the cell references absolute.

3. Point to the lower-right corner of Cell D4 until your mouse pointer changes to a black plus sign, and then drag the pointer down to Cell D41. As you copy the formula, the dollar signs prevent Excel from changing any cell references in the table array argument. This time, the page names that correspond to each ID appear in Column D with no errors.

The formula in Step 2 uses absolute columns and rows (the dollar signs are a dead giveaway). You can use a mix of relative columns and absolute rows, or vice versa. For example:

1. If you need a relative column reference and an absolute row reference, use A$2.
2. If you need an absolute column reference and a relative row reference, use $A2.

You can mix absolute and relative references as needed. For example, you could use $A2:B$39, or any other combination of characters. Just make sure that you place the dollar sign before the column or row that you want to designate as an absolute reference. The function fails otherwise.

Finally, for more information about formula error messages, see Correct a #N/A error, Correct a #REF! error, and Correct a #VALUE! error.

Use formula auditing to find empty cells and fix broken functions

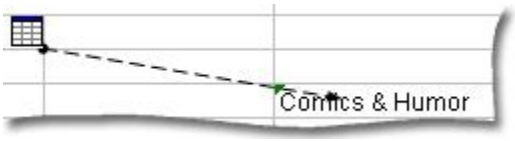
Typically, a function doesn't work because it references at least one empty cell. You can use the formula auditing tools in Excel to find the empty cell and fix the broken function. The formula auditing tools use arrows and icons to point to the cells from which a function tries to take the data it needs.

Important To follow the steps in this section, you must first enable an error checking option. On the Tools menu, click Options, click the Error Checking tab, and then select the Formulas referring to empty cells check box.

To see the auditing tools in action:

1. On the Page Views worksheet, remove the dollar signs from the formula in cell D4.
2. Clear cells D5 through D41, and then copy the changed formula down to Cell D41. Because all instances of the formula except the first one contain an error, Excel displays a green triangle in the upper-left corner of each cell:

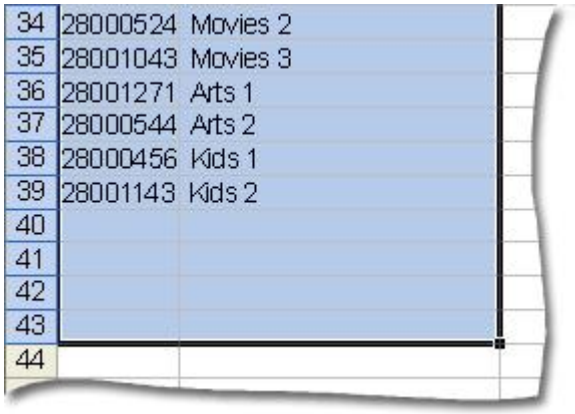
3. Select Cell D5. The Trace Error icon appears.
4. Click the arrow to the right of the icon, and then click Trace Empty Cell. The following arrow and icon appear, indicating that the empty cell resides on another worksheet.



5. Double-click the black arrow that leads from the icon to the cell.
6. Double-click the entry in the Go to dialog box. Excel opens the Pages worksheet because that worksheet contains the empty cell.

At this point, you need to notice something subtle: In the Pages worksheet, Excel highlights the cell range A3 to B40, even though the data only resides in cells A2 to B39. The highlight is showing you that the formula is searching the wrong range of cells. Hence, the error.

To see a more pronounced example of this behavior, go back to the Page Views worksheet, select Cell D10, and repeat Steps 4 through 6. The highlight in the Pages worksheet extends even further down to indicate the greater number of empty cells referenced by the instance of the formula in Cell D10.



34	28000524	Movies 2
35	28001043	Movies 3
36	28001271	Arts 1
37	28000544	Arts 2
38	28000456	Kids 1
39	28001143	Kids 2
40		
41		
42		
43		
44		

Use the Lookup Wizard to save time

If you don't have the time to write a function or if writing functions still frustrates you, you can use the Lookup Wizard. The Lookup Wizard comes with Excel, so you don't need to download it (but Excel may prompt you to install it the first time you try to use it). The wizard uses the INDEX and MATCH functions (instead of VLOOKUP and HLOOKUP) to return records.

Unlike the lookup functions, the INDEX function requires you to specify row and column labels. The INDEX function also returns values from unsorted lists.

The MATCH function determines the row that contains the desired value. You can use INDEX and MATCH to enter more than one search term and return the value that corresponds to the intersection of the two terms. For example, the following table contains shipping data for the first three months of 1994, 1995, and 1996.

Units Shipped

	January	February	March
1994	37	43	61
1995	40	60	52
1996	31	50	64

Using INDEX and MATCH, you can specify multiple search terms such as "1995" and "March." In that case, the functions would return 52, the value at the intersection of those terms.

The steps in this section explain how to configure Excel to run the Lookup Wizard, and how to use the wizard.

First, let's configure Excel.

1. On the Tools menu, click Add-Ins.
2. In the Add-Ins dialog box, click Lookup Wizard, and then click OK.

Now let's run the add-in. These steps explain how to duplicate the results you created earlier using the VLOOKUP function. We'll use values from the Page Views and Pages worksheets, and return a result to a blank cell on the Page Views worksheet.

1. Open the sample spreadsheet (LookupFunctions.xls) and select the Pages worksheet.

2. On the Tools menu, click Lookup. You should see the following text and cell range in the wizard.

   If the text seems a bit cryptic, remember that you're defining the location and range of cells through which the function searches. When you see those values, click Next.
3. Ensure that Page Name appears in the top drop-down box, and then pick a page ID number from the bottom drop-down box and click Next.
4. Do one of the following:
   1. If you want your worksheet to display only the result of your search, click Copy just the formula to a single cell.
   2. If you want the worksheet to display the search result and the parameters used in the search, click Copy the formula and lookup parameters, and then click Next.
5. Do one of the following:
   1. If you chose to display only the search result, enter a reference to a blank cell in the box, and then click Finish.
   2. If you chose to display the result and the lookup parameters, enter references to three blank cells, and then click Finish.

The wizard performs the lookup and writes the result or results to the cell or cells you referenced in Step 6.

A final reminder

As you use lookup functions, remember that you're pointing to a data string in one location, telling Excel to find either a partial or absolute match for that data string in another location, and then telling Excel to display a third value that lies either next to or near that second value.

HLookup

Searches for a value in the top row of a table or an array (array: Used to build single formulas that produce multiple results or that operate on a group of arguments that are arranged in rows and columns. An array range shares a common formula; an array constant is a group of constants used as an argument.) of values, and then returns a value in the same column from a row you specify in the table or array. Use HLOOKUP when your comparison values are located in a row across the top of a table of data, and you want to look down a specified number of rows. Use VLOOKUP when your comparison values are located in a column to the left of the data you want to find.

The H in HLOOKUP stands for "Horizontal."

Syntax
HLOOKUP(lookup_value,table_array,row_index_num,range_lookup)
Lookup_value is the value to be found in the first row of the table. Lookup_value can be a value, a reference, or a text string.
Table_array is a table of information in which data is looked up. Use a reference to a range or a range name.

1. The values in the first row of table_array can be text, numbers, or logical values.
2. If range_lookup is TRUE, the values in the first row of table_array must be placed in ascending order: ...-2, -1, 0, 1, 2,... , A-Z, FALSE, TRUE; otherwise, HLOOKUP may not give the correct value. If range_lookup is FALSE, table_array does not need to be sorted.
3. Uppercase and lowercase text are equivalent.
4. You can put values in ascending order, left to right, by selecting the values and then clicking Sort on the Data menu. Click Options, click Sort left to right, and then click OK. Under Sort by, click the row in the list, and then click Ascending.

Row_index_num is the row number in table_array from which the matching value will be returned. A row_index_num of 1 returns the first row value in table_array, a row_index_num of 2 returns the second row value in table_array, and so on. If row_index_num is less than 1, HLOOKUP returns the #VALUE! error value; if row_index_num is greater than the number of rows on table_array, HLOOKUP returns the #REF! error value.

Range_lookup is a logical value that specifies whether you want HLOOKUP to find an exact match or an approximate match. If TRUE or omitted, an approximate match is returned. In other words, if an exact match is not found, the next largest value that is less than lookup_value is returned. If FALSE, HLOOKUP will find an exact match. If one is not found, the error value #N/A is returned.

Remarks

1. If HLOOKUP can't find lookup_value, and range_lookup is TRUE, it uses the largest value that is less than lookup_value.
2. If lookup_value is smaller than the smallest value in the first row of table_array, HLOOKUP returns the #N/A error value.
3. If range_lookup is FALSE and lookup_value is text, you can use the wildcard characters, question mark (?) and asterisk (*), in lookup_value. A question mark matches any single character; an asterisk matches any sequence of characters. If you want to find an actual question mark or asterisk, type a tilde (~) before the character.

VLOOKUP

Searches for a value in the first column of a table array and returns a value in the same row from another column in the table array.

The V in VLOOKUP stands for vertical. Use VLOOKUP instead of HLOOKUP when your comparison values are located in a column to the left of the data that you want to find.

Syntax

VLOOKUP(lookup_value,table_array,col_index_num,range_lookup)

Lookup_value The value to search in the first column of the table array (array: Used to build single formulas that produce multiple results or that operate on a group of arguments that are arranged in rows and columns. An array range shares a common formula; an array constant is a group of constants used as an argument.). Lookup_value can be a value or a reference. If lookup_value is smaller than the smallest value in the first column of table_array, VLOOKUP returns the #N/A error value.

Table_array Two or more columns of data. Use a reference to a range or a range name. The values in the first column of table_array are the values searched by

lookup_value. These values can be text, numbers, or logical values. Uppercase and lowercase text are equivalent.

Col_index_num The column number in table_array from which the matching value must be returned. A col_index_num of 1 returns the value in the first column in table_array; a col_index_num of 2 returns the value in the second column in table_array, and so on. If col_index_num is:

Less than 1, VLOOKUP returns the #VALUE! error value.

Greater than the number of columns in table_array, VLOOKUP returns the #REF! error value.

Range_lookup A logical value that specifies whether you want VLOOKUP to find an exact match or an approximate match:

If TRUE or omitted, an exact or approximate match is returned. If an exact match is not found, the next largest value that is less than lookup_value is returned.

The values in the first column of table_array must be placed in ascending sort order; otherwise, VLOOKUP may not give the correct value. You can put the values in ascending order by choosing the Sort command from the Data menu and selecting Ascending. For more information, see Default sort orders.

If FALSE, VLOOKUP will only find an exact match. In this case, the values in the first column of table_array do not need to be sorted. If there are two or more values in the first column of table_array that match the lookup_value, the first value found is used. If an exact match is not found, the error value #N/A is returned.

To make use of the COUNT Function

Counts the number of cells that contain numbers and counts numbers within the list of arguments. Use COUNT to get the number of entries in a number field that is in a range or array of numbers.

Syntax

COUNT(value1,value2,...)

Value1, value2, ... are 1 to 30 arguments that can contain or refer to a variety of different types of data, but only numbers are counted.

Remarks

- Arguments that are numbers, dates, or text representation of numbers are counted.
- Logical values and text representations of numbers that you type directly into the list of arguments are counted.
- Arguments that are error values or text that cannot be translated into numbers are ignored.
- If an argument is an array or reference, only numbers in that array or reference are counted. Empty cells, logical values, text, or error values in the array or reference are ignored.
- If you want to count logical values, text, or error values, use the COUNTA function.

TASK5

To make use of the Group and Outline option

Create an Outline

	A	B	C
1	Region	Month	Sales
4	East	AprTotal	11,034
7	East	MarTotal	11,075
10	West	AprTotal	9,643
11	West	Mar	3,036
12	West	Mar	7,113
13	West	Mar	8,751
14	West	MarTotal	18,900
15		All Sales	50,652

This outline lets you show and hide the detail rows for monthly sales.

1. If your summary rows are above the detail rows, or your summary columns are to the left of the detail columns, change the direction setting.
   How?
   1. On the Data menu, point to Group and Outline, and then click Settings.
   2. Clear the Summary rows below detail check box, the Summary columns to right of detail check box, or both check boxes.
2. If you want to set outline styles (style: A combination of formatting characteristics, such as font, font size, and indentation, that you name and store as a set. When you apply a style, all of the formatting instructions in that style are applied at one time.) that will be applied automatically when the outline is created, set the Automatic styles option.
   How?
   1. On the Data menu, point to Group and Outline, and then click Settings.
   2. Select the Automatic styles check box.

   Note If you don't want to apply automatic styles before you begin, you can apply them after you create the outline.
3. Decide whether to outline the worksheet automatically or manually.
   - You can outline any worksheet manually.
   - You can outline worksheets automatically if they have summary formulas that reference cells in the detail data (detail data: For automatic subtotals and worksheet outlines, the subtotal rows or columns that are totaled by summary data. Detail data is typically adjacent to and either above or to the left of the summary data.). All columns containing summary formulas must be either to the right or to the left of the detail data, or rows containing summary formulas must be either below or above the detail data.
     If you aren't sure whether your worksheet meets these requirements, try outlining automatically, and if the results aren't as you expect, undo the operation and outline manually instead.
4. Do one of the following:
   Outline the data automatically
   1. Select the range of cells you want to outline.
      To outline the entire worksheet, click any cell on the worksheet.
   1. On the Data menu, point to Group and Outline, and then click Auto Outline.

   Outline the data manually
   2. Select the rows or columns that contain detail data.

Detail rows or columns are usually adjacent to the row or column that contains the summary formula or a heading. For example, if row 6 contains totals for rows 3 through 5, select rows 3 through 5. If row 8 contains a heading that describes rows 9 through 12, select rows 9 through 12.

3. On the Data menu, point to Group and Outline, and then click Group.
   The outline symbols (outline symbols: Symbols that you use to change the view of an outlined worksheet. You can show or hide detailed data by pressing the plus sign, minus sign, and the numbers 1, 2, 3, or 4, indicating the outline level.) appear beside the group on the screen.
4. Continue selecting and grouping detail rows or columns until you have created all of the levels you want in the outline.

5. If you didn't select automatic styles, you can apply styles now.
   How?
   1. Select the cells that you want to apply outline styles to.
   2. On the Data menu, point to Group and Outline, and then click Settings.
   3. Select the Automatic styles check box.
   4. Click Apply Styles.

Remove an Outline

No data is deleted when you remove an outline.

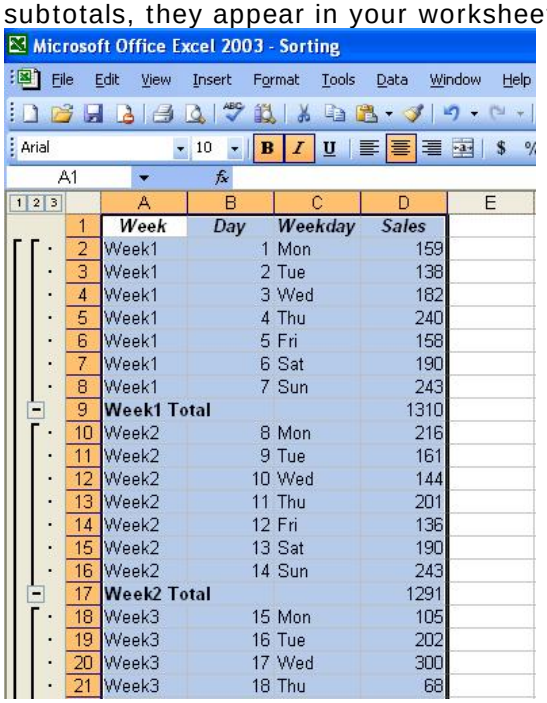
1. Click the worksheet.
2. On the Data menu, point to Group and Outline, and then click Clear Outline.
3. If rows or columns are still hidden, drag across the visible row or column headings on both sides of the hidden rows and columns, point to Row or Column on the Format menu, and then click Unhide.

To calculate subtotals and totals using grouping and outline

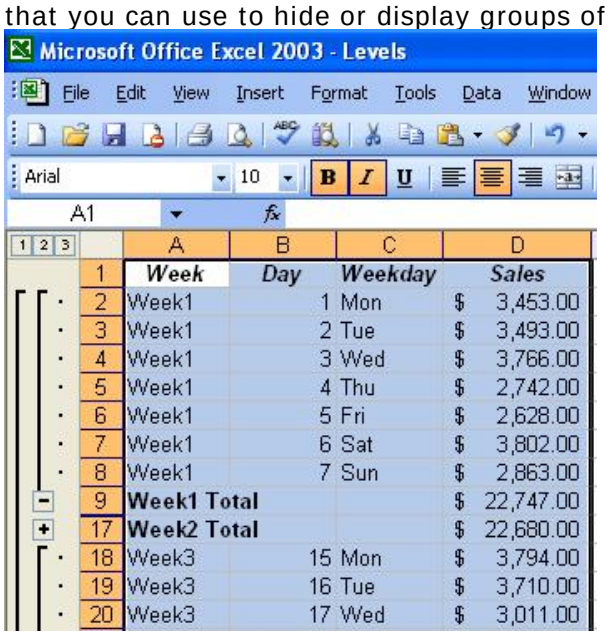
You can have Excel calculate subtotals or totals for portions of your worksheet data. For example, in a worksheet with sales data for three different product categories, you can first sort the products by category, and then select all the cells that contain data and open the Subtotal dialog box (Data menu, Subtotals command).

In the Subtotal dialog box, you can choose the column on which to base your subtotals (such as every change of value in the Week column), the summary calculation that you want to perform, and the column or columns with values to be summarized. For example (as shown in the previous picture), you could calculate

subtotals for the number of units sold in each category. After you define your subtotals, they appear in your worksheet.



As the previous picture shows, when you add subtotals to a worksheet, Excel also defines groups based on the rows used to calculate the subtotals. The groupings form an outline of your worksheet based on the criteria that you used to create the subtotals. All the rows with furniture products are in one group, rows with tools are in another, and so on. The outline section at the left of the worksheet holds controls that you can use to hide or display groups of rows.



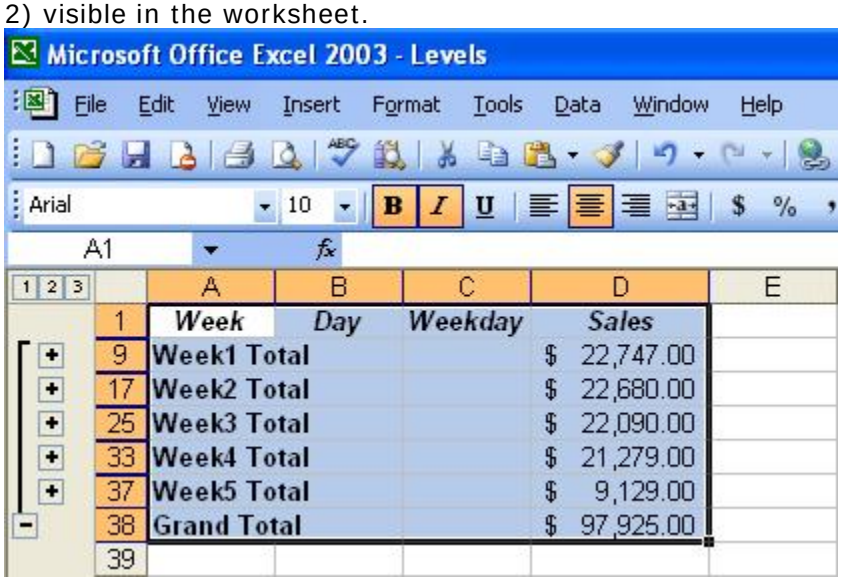
There are three types of controls in the outline section:

- Hide detail buttons When the rows in a group are visible, a hide detail button appears next to the group.
- Show detail buttons When you hide a group of rows, the button next to the group changes to a show detail button . Clicking a show detail button restores the rows in that group to the worksheet.
- Level buttons Each of the numbered level buttons 1 2 3 represents a level of organization in a worksheet; clicking a level button hides all levels of detail below that of the button you clicked.

The following table identifies the three levels of organization in the previous graphic.

Level	Description
1	The grand total
2	Subtotals for each group
3	Individual rows in the worksheet

In the worksheet shown in the previous picture, clicking the level 2 button would hide the rows with data on the sales of individual products, but would leave the row with the grand total (level 1) and all rows with the subtotals for each product (level 2) visible in the worksheet.



For additional flexibility, you can add levels of detail to the outline that Excel creates, which enables you to hide specific details from time to time. For instance, you might want to hide the sales of bamboo barrier, bamboo chimes, and bamboo stakes (which you know sell well) to see how the other products sell in comparison with each other.

Create a new outline group within an existing group

1. Select the rows you want to group.
2. Point to Group and Outline on the Data menu, and then click Group. Excel will create a new group on a new level (level 4), as shown in the following picture.

Remove a group

1. Select the rows in a group.
2. Point to Group and Outline on the Data menu, and then click Ungroup.

Tip If you want to remove all subtotals from a worksheet, click Subtotal on the Data menu, and then click Remove All.

To make use of the Split panes

You can view two areas of a worksheet and lock rows or columns in one area by splitting or freezing panes (pane: A portion of the document window bounded by and separated from other portions by vertical or horizontal bars.). When you split panes, you'll be able to scroll in both areas of the worksheet, while rows or columns in the non-scrolled area remain visible.

When you freeze panes, you select specific rows or columns that remain visible when scrolling in the worksheet. For example, you would freeze panes to keep row and column labels visible as you scroll, as shown in the following picture.

	A	B	C
1	City	Date	Books Sold
7	Boise	Mar	84
8	Denver	Mar	38
9	Chicago	Feb	60
10	Dallas	Feb	72
11	Santa Fe	Mar	154

Lock rows and columns by splitting panes

1. To lock rows, select the row below where you want the split to appear.
   To lock columns, select the column to the right of where you want the split to appear.
   To lock both rows and columns, click the cell below and to the right of where you want the split to appear.
2. On the Window menu, click Split.
3. To remove the split, click Remove Split on the Window menu.

Tip

For a quick way to split panes, point to the split box at the top of the vertical scroll bar or at the right end of the horizontal scroll bar.

When the pointer changes to a split pointer or , drag the split box down or to the left to the position you want.

Lock rows and columns by freezing panes

1. To lock rows, select the row below where you want the split to appear.
   To lock columns, select the column to the right of where you want the split to appear.
   To lock both rows and columns, click the cell below and to the right of where you want the split to appear.
2. On the Window menu, click Freeze Panes.
3. To unlock rows, click Unfreeze Panes on the Window menu.

TASK6

Create a PivotTable report

1. Open the workbook where you want to create the PivotTable report.
   - If you are basing the report on a Web query, parameter query, report template, Office Data Connection file, or query file, retrieve the data into the workbook, and then click a cell in the Microsoft Excel list containing the retrieved data.
     If the retrieved data is from an OLAP database, or the Office Data Connection returns the data as a blank PivotTable report, continue with step 6 below.
   - If you are basing the report on an Excel list or database, click a cell in the list or database.
2. On the Data menu, click PivotTable and PivotChart Report.
3. In step 1 of the PivotTable and PivotChart Wizard, follow the instructions, and click PivotTable under What kind of report do you want to create?
4. Follow the instructions in step 2 of the wizard.
5. Follow the instructions in step 3 of the wizard, and then decide whether to lay out the report onscreen or in the wizard.
   Usually you can lay out the report onscreen, and this method is recommended. Use the wizard to lay out the report only if you expect retrieval from a large external data source to be slow, or you need to set page fields to retrieve data one page at a time. If you aren't sure, try laying out the report onscreen. You can return to the wizard if necessary.
6. Do one of the following:

Lay out the report onscreen

1. From the PivotTable Field List window, drag the fields with data that you want to display in rows to the drop area labeled Drop Row Fields Here.
   a. If you don't see the field list, click within the outlines of the PivotTable drop areas, and make sure Show Field List is pressed in.
   b. To see what levels of detail are available in fields that have levels, the click next to the field.
2. Drag fields with data that you want to display across columns to the drop area labeled Drop Column Fields Here.
3. Drag fields that contain the data that you want to summarize to the area labeled Drop Data Items Here.
   a. If you add more than one data field, arrange these fields in the order you want: Right-click a data field, point to Order on the shortcut menu, and use the commands on the Order menu to move the field.
4. Drag fields that you want to use as page fields to the area labeled Drop Page Fields Here.
5. To rearrange fields, drag them from one area to another. To remove a field, drag it out of the PivotTable report.
   a. To hide the drop area outlines, click a cell outside the PivotTable report.

Note If data is very slow to appear as you lay out the report, click Always Display Items on the PivotTable toolbar to turn off initial data display. If retrieval is still very slow or error messages appear, click PivotTable and PivotChart Report on the Data menu, and lay out the report in the wizard.

Lay out the report in the wizard

If you've exited from the wizard, click PivotTable and PivotChart Report on the Data menu to return to it.

1. In step 3 of the wizard, click Layout.

2. From the group of field buttons on the right, drag the fields that you want onto the ROW and COLUMN areas in the diagram.
3. Drag the fields that contain the data that you want to summarize onto the DATA area.
4. Drag fields that you want to use as page fields onto the PAGE area.
    a. If you want Excel to retrieve data one page at a time, so you can work with large amounts of source data, double-click the page field, click Advanced, click Query external data source as you select each page field item, and then click OK twice. (This option is unavailable for some types of source data, including OLAP databases and Office Data Connections.)
5. To rearrange fields, drag them from one area to another. Some fields can only be used in some of the areas; if you drop a field in an area where it can't be used, the field won't appear in the area.
    a. To remove a field, drag it out of the diagram.
    b. When you are satisfied with the layout, click OK, and then click Finish.

Ways to customize PivotTable reports

You can customize the appearance and content of a PivotTable report to get the presentation you need. In a new report, first display the data you want to see, and then work on the appearance.

Adding and removing fields

When you click a PivotTable report, blue drop area guidelines appear along with the PivotTable toolbar and the PivotTable Field List window, so that you can customize the report.

To add a field, you can drag it from the field list to the area of the report where you want it, or use the Add To button and dropdown in the field list. To remove a field, drag it out of the report or drag it back onto the field list. Fields that you remove remain available in the field list.

You can use fields with icons in the field list only as row (row field: A field that's assigned a row orientation in a PivotTable report. Items associated with a row field are displayed as row labels.), column (column field: A field that's assigned a column orientation in a PivotTable report. Items associated with a column field are displayed as column labels.), or page fields (page field: A field that's assigned to a page orientation in a PivotTable or PivotChart report. You can either display a summary of all items in a page field, or display one item at a time, which filters out the data for all other items.), and fields with icons only as data fields (data field: A field from a source list, table, or database that contains data that is summarized in a PivotTable report or PivotChart report. A data field usually contains numeric data, such as statistics or sales amounts.). If your fields have these icons, each field can be used in the report only once.

If your fields have icons, you can use any field in any area, and you can add a field to both to the data area and to one of the row, column, or page areas, or display it more than once in the data area, as long as you report doesn't have any calculated items (calculated item: An item within a PivotTable field or PivotChart field that uses a formula you create. Calculated items can perform calculations by using the contents of other items within the same field of the PivotTable report or PivotChart report.).

You can change the order in which fields appear by dragging them, or in the case of multiple data fields, by using the Order commands on the PivotTable menu.

Changing the layout

a. Click a column field
b. Drag it to the row area
c. Sport becomes a row field like Region

When you move a field, it retains most settings you've made using the arrow in the field or the Field Settings command, including page field (page field: A field that's assigned to a page orientation in a PivotTable or PivotChart report. You can either display a summary of all items in a page field, or display one item at a time, which filters out the data for all other items.) options and layout settings. For example, if you set page field settings and move the field to the row area, then later move the field back to the page area, the settings remain in effect.

Indented and nonindented formats

You can display a PivotTable report in an indented format similar to traditional banded or formatted database reports, in which the summarized data from each data field (data field: A field from a source list, table, or database that contains data that is summarized in a PivotTable report or PivotChart report. A data field usually contains numeric data, such as statistics or sales amounts.) appears in a single column. New reports are displayed in a nonindented or crosstabulated format, with data field values in a grid. Switching to indented format may change the layout of the report, and it applies an autoformat (autoformat: A built-in collection of cell formats such as font size, patterns, and alignment that you can apply to a range of data. Excel determines the levels of summary and detail in the selected range and applies the formats accordingly.) to the report.

Use Format Report on the PivotTable toolbar to select an indented or nonindented format. The autoformats available for other worksheet areas are not available for PivotTable reports.

Indented formats Formats Report 1 through Report 10 are indented formats. Applying these formats moves all column fields in the report to the row area. Data fields move to the right of row fields (row field: A field that's assigned a row orientation in a PivotTable report. Items associated with a row field are displayed as row labels.), and the field names change to omit the summary function name. For example, Sum of Sales becomes Sales. After you apply a format, you can rearrange the fields as in any PivotTable report.

Setting indented format manually If you don't want to apply an autoformat, you can move all column fields to the row area, double-click each row field, click Layout, and then click Show items in outline form. This setting is retained if you move the field to another area, but the field is displayed in indented format only when it is in the row area.

Nonindented formats Formats PivotTable Classic and Table 1 through Table 10 are nonindented, for use with PivotTable reports that have column fields (column field: A field that's assigned a column orientation in a PivotTable report. Items associated with a column field are displayed as column labels.). Table 1 through Table 10 move the leftmost row field to the column area. Table 1 through Table 5 and Table 7 also add a blank line after each item in the outermost row field.

Character, cell, and number formats

You can change cell formats in a PivotTable report, such as font, background color, and alignment, as you do for other worksheet cells. You can set number formats for individual cells or for all cells of a data field.

Most formatting is retained when you refresh (refresh: To update the contents of a PivotTable or PivotChart report to reflect changes to the underlying source data. If the report is based on external data, refreshing runs the underlying query to retrieve new or changed data.) a report or change its layout, provided the Preserve formatting check box in the PivotTable Options dialog box is selected. Cell border changes, however, aren't retained.

Changing what's displayed for errors and empty cells Instead of displaying error values, such as #REF! or #N/A, and blanks for empty cells, you can specify different values for these cells in a PivotTable report.

Using merged cells By default, the labels for items in outer row and column fields appear left justified at the top of the item group. You can center the items horizontally and vertically by selecting the Merge labels check box in the PivotTable Options dialog box.

Adding blank rows between item groups For outer row fields (row field: A field that's assigned a row orientation in a PivotTable report. Items associated with a row field are displayed as row labels.), you can add a blank line after each item or its total row.

Removing formats To remove all character and cell formats in a report, use the None format available from the Format Report command.

Sorting

In a new report, the items (item: A subcategory of a field in PivotTable and PivotChart reports. For instance, the field "Month" could have items such as "January," "February," and so on.) in each field appear either in the order received from the source database, or in ascending order. Refreshing (refresh: To update the contents of a PivotTable or PivotChart report to reflect changes to the underlying source data. If the report is based on external data, refreshing runs the underlying query to retrieve new or changed data.) a report places new items at the ends of the rows or columns.

Microsoft Excel uses the following ascending sort order: numbers, text, logical values, error values such as #REF and #VALUE, and blank cells. When you sort in descending order, Excel sorts in the reverse order except for blank cells, which are always sorted last. If you want a sorting sequence such as Jan, Feb, Mar, and so forth, you can use a custom sort order, and you can also define your own sorting sequence.

If your report has fields organized in levels, you can sort lower-level items together by hiding the upper levels before you sort. For example, if you display both the Country and City levels, cities are sorted separately under each country, but if you hide the Country level, you can sort cities from different countries together.

You can manually reorder items by clicking and dragging the item labels.

Showing and hiding detail

Your options for varying the amount of detail displayed in a report depend on the type of source data (source data: The list or table that's used to create a PivotTable or PivotChart report. Source data can be taken from an Excel list or range, an external database or cube, or another PivotTable report.) the report is based on.

For OLAP (OLAP: A database technology that has been optimized for querying and reporting, instead of processing transactions. OLAP data is organized hierarchically

and stored in cubes instead of tables.) source data (and icons in the field list), fields are organized in levels of detail, and you can display and hide both individual items and entire levels. Summary values are usually calculated on the OLAP server, so underlying detail records for data values usually aren't available for display. However, your database may have other information available for items, called property fields (property fields: independent attributes associated with items, or members, in an OLAP cube. For example, if city items have size and population properties stored in the server cube, a PivotTable report can display the size and population of each city.), that you can display or hide. For example, if your database has a City field, you might be able to display population or climate figures for individual cities.

For other types of source data (icons in the field list), you can display and hide individual items and also display underlying detail records for data values and items, if this option hasn't been disabled. You can't directly select multiple items in a page field (page field: A field that's assigned to a page orientation in a PivotTable or PivotChart report. You can either display a summary of all items in a page field, or

display one item at a time, which filters out the data for all other items.), but you can move the field temporarily to the row or column area, hide some of the items, and move the field back to the page area, so that the (All) item then displays a summary that omits the hidden items.

For both types of source data, you can automatically display the top or bottom items in a field — for example, the top ten sales reps or the five least expensive products. If you set this type of display for an OLAP field, your setting affects only the current level and lower levels in the dimension (dimension: An OLAP structure that organizes data into levels, such as Country/Region/City for a Geography dimension. In a PivotTable or PivotChart report, each dimension becomes a set of fields where you can expand and collapse detail.), and remains in effect only if you don't hide the level you set it for.

Grouping items

You can use grouping to view less detailed summaries — for example, to view data by quarter instead of week. You can group dates, times, or numbers, and selected items (item: A subcategory of a field in PivotTable and PivotChart reports. For instance, the field "Month" could have items such as "January," "February," and so on.) in a report. Grouping works differently for different types of source data (source data: The list or table that's used to create a PivotTable or PivotChart report. Source data can be taken from an Excel list or range, an external database or cube, or another PivotTable report.).

For OLAP (OLAP: A database technology that has been optimized for querying and reporting, instead of processing transactions. OLAP data is organized hierarchically and stored in cubes instead of tables.) source data, when you select and group individual items, the rest of the items in the field appear in a group named Other. The new group and the Other group become another level of detail that you can show or hide, so that you can still display the individual items that you've grouped. To group items in a page field, you can move the field temporarily to the row or column area, group the items, and then move the field back to the page area. You can also select multiple page field items to display as a combined summary.

For other types of source data (icons in the field list), when you select and group individual items, the items are combined in a new item named Group1 (which you can rename). You can't display the individual items unless you ungroup them. The rest of the items in the field are unchanged by adding the group. While items in a field are grouped, you can't add calculated items (calculated item: An item within a PivotTable field or PivotChart field that uses a formula you create. Calculated items can perform calculations by using the contents of other items within the same field of the PivotTable report or PivotChart report.) to the field. To group items in a page field, you can move the field temporarily to the row or column area, group the items, and then move the field back to the page area.

Totals, calculations, and formulas

PivotTable and PivotChart reports (PivotChart report: A chart that provides interactive analysis of data, like a PivotTable report. You can change views of data, see different levels of detail, or reorganize the chart layout by dragging fields and by showing or hiding items in fields.) provide several types of calculations. Data fields (data field: A field from a source list, table, or database that contains data that is summarized in a PivotTable report or PivotChart report. A data field usually contains numeric data, such as statistics or sales amounts.) use summary functions (summary function: A type of calculation that combines source data in a PivotTable report or a consolidation table, or when you are inserting automatic subtotals in a list or database. Examples of summary functions include Sum, Count, and Average.) to combine values from the underlying source data (source data: The list or table that's used to create a PivotTable or PivotChart report. Source data can be taken from an Excel list or range, an external database or cube, or another PivotTable report.). You can also use custom calculations (custom calculation: A method of summarizing values in the data area of a PivotTable report by using the

values in other cells in the data area. Use the Show data as list on the PivotTable Field dialog for a data field to create custom calculations.) to compare data values, or add your own formulas that use elements of the report or other worksheet data.

Display subtotals for individual fields

1. Double-click the field.
2. Do one of the following:

   Subtotal an outer row or column field Click Automatic under Subtotals. To use a different summary function (summary function: A type of calculation that combines source data in a PivotTable report or a consolidation table, or when you are inserting automatic subtotals in a list or database. Examples of summary functions include Sum, Count, and Average.) or display more than one type of subtotal, click the summary function you want in the box to the right of Custom (this option is unavailable for some types of source data (source data: The list or table that's used to create a PivotTable or PivotChart report. Source data can be taken from an Excel list or range, an external database or cube, or another PivotTable report.)).

   Subtotal an inner row or column field Click Custom under Subtotals, if this option is available, and then click a summary function in the box to the right.

   Remove subtotals Click None under Subtotals.

   Note If a field contains a calculated item (calculated item: An item within a PivotTable field or PivotChart field that uses a formula you create. Calculated items can perform calculations by using the contents of other items within the same field of the PivotTable report or PivotChart report.), you can't change the subtotal summary function.

   Tip

   For outer row fields (row field: A field that's assigned a row orientation in a PivotTable report. Items associated with a row field are displayed as row labels.), you can display subtotals above or below their items. Double-click the field, click Layout, click Show items in outline form, and then select or clear the Display subtotals at top of group check box.

Display grand totals for the entire report

1. Click the report.
2. On the PivotTable toolbar (toolbar: A bar with buttons and options that you use to carry out commands. To display a toolbar, click Customize on the Tools menu, and then click the Toolbars tab.), click PivotTable, and then click Table Options.
3. Do one of the following:

   Display grand totals Select the Grand totals for columns check box, the Grand totals for rows check box, or both.

   Hide grand totals Clear either or both check boxes.

   Note Grand totals for a field use the same summary function (summary function: A type of calculation that combines source data in a PivotTable report or a consolidation table, or when you are inserting automatic subtotals in a list or database. Examples of summary functions include Sum, Count, and Average.) as the subtotals for the field.

Calculate the totals with or without hidden items

1. Click the report.
2. On the PivotTable toolbar (toolbar: A bar with buttons and options that you use to carry out commands. To display a toolbar, click Customize on the Tools menu, and then click the Toolbars tab.), click Include Hidden Items in Totals .

   If this button is unavailable, your source data allows you to include or exclude hidden items in page fields (page field: A field that's assigned to a page orientation in a PivotTable or PivotChart report. You can either display a

summary of all items in a page field, or display one item at a time, which filters out the data for all other items.): click PivotTable, click Table Options, and then select or clear the Subtotal hidden page items check box.

1. the data field (data field: A field from a source list, table, or database that contains data that is summarized in a PivotTable report or PivotChart report. A data field usually contains numeric data, such as statistics or sales amounts.) or a cell in the data area.
   For a PivotChart report (PivotChart report: A chart that provides interactive analysis of data, like a PivotTable report. You can change views of data, see different levels of detail, or reorganize the chart layout by dragging fields and by showing or hiding items in fields.), work in the associated PivotTable report (associated PivotTable report: The PivotTable report that supplies the source data to the PivotChart report. It is created automatically when you create a new PivotChart report. When you change the layout of either report, the other also changes.).
2. On the PivotTable toolbar (toolbar: A bar with buttons and options that you use to carry out commands. To display a toolbar, click Customize on the Tools menu, and then click the Toolbars tab.), click Field Settings .
3. In the Summarize by box, click the summary function (summary function: A type of calculation that combines source data in a PivotTable report or a consolidation table, or when you are inserting automatic subtotals in a list or database. Examples of summary functions include Sum, Count, and Average.) you want to use.
   For some types of source data (source data: The list or table that's used to create a PivotTable or PivotChart report. Source data can be taken from an Excel list or range, an external database or cube, or another PivotTable report.), and for calculated fields (calculated field: A field in a PivotTable report or PivotChart report that uses a formula you create. Calculated fields can perform calculations by using the contents of other fields in the PivotTable report or PivotChart report.) and fields with calculated items (calculated item: An item within a PivotTable field or PivotChart field that uses a formula you create. Calculated items can perform calculations by using the contents of other items within the same field of the PivotTable report or PivotChart report.), you can't change the summary function.
4. If you want to use a custom calculation (custom calculation: A method of summarizing values in the data area of a PivotTable report by using the values in other cells in the data area. Use the Show data as list on the PivotTable Field dialog for a data field to create custom calculations.), click Options, click the calculation you want in the Show data as list, and then select a Base field and Base item, if these options are available for the calculation you chose, to provide the data for the calculation. The base field should not be the same one you chose in step 1.
   Note Setting Show data as to Normal turns off custom calculation.
5. If the report has multiple data fields, repeat these steps for each one that you want to change.
6. If your source data allows you to change the summary function, you can use more than one summary method for the same field. Drag the field from the PivotTable Field List window to the data area a second time, and then repeat the steps above for the second instance of the field.

Note When you change the summary method in a PivotChart report or its associated PivotTable report, some chart formatting may be lost.

Change the amount of detail displayed in a PivotTable report

1. Determine what kind of source data (source data: The list or table that's used to create a PivotTable or PivotChart report. Source data can be taken from an

Excel list or range, an external database or cube, or another PivotTable report.) your report has: click the report, if the field list is not displayed click Show Field List on the PivotTable toolbar, and look at the PivotTable Field List window.

2. For OLAP reports, display or hide different levels of detail for a field.

   How?

   1. Click the field.
   2. To display or hide lower-level detail, click Show Detail or Hide Detail on the PivotTable toolbar.
   3. To hide upper levels of detail, right-click the field button (field button: Button that identifies a field in a PivotTable or PivotChart report. You can drag the field buttons to change the layout of the report, or click the arrows next to the buttons to change the level of detail displayed in the report.) for the lowest level you want to hide, and then click Hide levels on the shortcut menu.

      The level you clicked and all higher levels in the dimension (dimension: An OLAP structure that organizes data into levels, such as Country/Region/City for a Geography dimension. In a PivotTable or PivotChart report, each dimension becomes a set of fields where you can expand and collapse detail.) are removed from view, and the dropdown arrow is also hidden.

      To redisplay hidden upper levels, right-click any field button in the dimension, and then click Show levels on the shortcut menu.

   For non-OLAP reports, do one or more of the following:

   Display or hide detail data for an item

   1. Click the item.
   2. On the PivotTable toolbar, click Show Detail or Hide Detail .
   3. If prompted, click the field that has the detail data you want to see.

   Display or hide detail for a data cell

   1. Double-click a cell in the data area (data area: The part of a PivotTable report that contains summary data. Values in each cell of the data area represent a summary of data from the source records or rows.). Microsoft Excel places the detail data summarized in the cell on a new worksheet.
   2. To hide the detail data, delete the new worksheet.

2. For OLAP reports, display or hide property fields (property fields: independent attributes associated with items, or members, in an OLAP cube. For example, if city items have size and population properties stored in the server cube, a PivotTable report can display the size and population of each city.), if available from your server cube.

   How?

   1. Click the field in the dimension for which you want to display property fields.
   2. On the PivotTable toolbar, click PivotTable, and then click Property Fields.
   3. In the Choose properties from level list, click each level for which you want to display property fields, and then double-click the property fields you want to see.
   4. In the Properties to display box, use the and buttons to arrange the property fields in the order you want them to appear in the report.
   5. Make sure the Show fields for this dimension in outline form check box is selected, and then click OK.

6. If the levels for which you selected property fields aren't displayed in the report, click the field and then click Show Detail on the PivotTable toolbar.

Group items in a PivotTable or PivotChart field

1. If the field is a page field (page field: A field that's assigned to a page orientation in a PivotTable or PivotChart report. You can either display a summary of all items in a page field, or display one item at a time, which filters out the data for all other items.), check the page field settings, and then move it temporarily to the row or column area.
   How?
   For a PivotChart report, work in the associated PivotTable report (associated PivotTable report: The PivotTable report that supplies the source data to the PivotChart report. It is created automatically when you create a new PivotChart report. When you change the layout of either report, the other also changes.).
   1. Double-click the page field.
   2. Click Advanced.
   3. Make sure the Retrieve external data for all page field items option is either selected or unavailable.
   4. Click OK twice.
   5. Drag the page field to the row or column area.
2. Do one of the following:

   Group numeric items
   1. Right-click the field with the numeric items, point to Group and Show Details on the shortcut menu, and then click Group.
   2. In the Starting at box, enter the first item to group.
   3. In the Ending at box, enter the last item to group.
   4. In the By box, type the number of items that you want in each group.

   Group dates or times
   5. Right-click the field with the dates or times, point to Group and Show Details on the shortcut menu, and then click Group.
   6. Enter the first date or time to group in the Starting at box, and enter the last date or time to group in the Ending at box.
   7. In the By box, click one or more time periods for the groups.
      To group items by weeks, click Days in the By box, make sure Days is the only time period selected, and then click 7 in the Number of days box. You can then click additional time periods to group by, such as Month, if you want.

   Group selected items
   8. Select the items to group, either by clicking and dragging, or by holding down CTRL or SHIFT while you click.
      For a PivotChart report, select the items in the associated PivotTable report (associated PivotTable report: The PivotTable report that supplies the source data to the PivotChart report. It is created automatically when you create a new PivotChart report. When you change the layout of either report, the other also changes.).
   9. Right-click the selected items, point to Group and Show Details on the shortcut menu, and then click Group.

Note For fields organized in levels, you can only group items that all have the same next-level item. For example, if the field has levels Country and City, you can't group cities from different countries.

Ungroup items

- Right-click the group, point to Group and Show Details on the shortcut menu, and then click Ungroup.
  In a numeric or date/time field, right-click any group; Excel then ungroups all groups for the field.

3. If the field was formerly a page field, drag it back to the page area.

Print a PivotTable report

1. If you have more than one PivotTable report on the worksheet, set a print area that includes only the report you want to print.
   How?
   1. Click the report.
   2. On the PivotTable toolbar, click PivotTable, point to Select, and then click Entire Table.
   3. On the File menu, point to Print Area, and then click Set Print Area.
2. On the File menu, click Page Setup, and adjust the page settings, sheet settings, margins, and headers and footers.
3. If you want to repeat the row and column labels from the report on each page as print titles, clear the Rows to repeat at top and Columns to repeat at left boxes, and then set PivotTable print titles.
   How?
   1. On the PivotTable toolbar, click PivotTable, and then click Table Options.
   2. Under Format options, select the Set print titles check box.
   3. If your report has more than one row field and you also want to repeat outer row field items on each page, select the Repeat item labels on each printed page check box.
4. If your report has more than one row field and you want automatic page breaks after each item in one or more outer row fields, set these page breaks.
   How?
   1. Double-click the outer row field that has the items you want to print on separate pages.
   2. Click Layout.
   3. Select the Insert page break after each item check box.
5. On the View menu, click Page Break Preview, and make any adjustments you want to the page breaks.
   You can insert new manual page breaks and move and delete automatic page breaks.
6. On the File menu, click Print Preview, and check your print layout. To make adjustments, you can repeat any of the previous steps as needed.
7. When the preview looks correct, click Print

Custom calculations for PivotTable and PivotChart data fields

The following functions are available for custom calculations in data fields.

Function	Result
Difference From	Displays data as the difference from the value of the Base item in the Base field.

% Of	Displays data as a percentage of the value of the Base item in the Base field.
% Difference From	Displays data as the percentage difference from the value of the Base item in the Base field.
Running Total in	Displays the data for successive items in the Base field as a running total.
% Of Row	Displays the data in each row or category as a percentage of the total for the row or category.
% Of Column	Displays all the data in each column or series as a percentage of the total for the column or series.
% Of Total	Displays data as a percentage of the grand total of all the data or data points in the report.
Index	Calculates data as follows: ((value in cell) x (Grand Total of Grand Totals)) / ((Grand Row Total) x (Grand Column Total))

Delete a PivotTable or PivotChart formula

For best results in a PivotChart report (PivotChart report: A chart that provides interactive analysis of data, like a PivotTable report. You can change views of data, see different levels of detail, or reorganize the chart layout by dragging fields and by showing or hiding items in fields.), work in the associated PivotTable report (associated PivotTable report: The PivotTable report that supplies the source data to the PivotChart report. It is created automatically when you create a new PivotChart report. When you change the layout of either report, the other also changes.).

1. Determine whether the formula is in a calculated field (calculated field: A field in a PivotTable report or PivotChart report that uses a formula you create. Calculated fields can perform calculations by using the contents of other fields in the PivotTable report or PivotChart report.) or a calculated item (calculated item: An item within a PivotTable field or PivotChart field that uses a formula you create. Calculated items can perform calculations by using the contents of other items within the same field of the PivotTable report or PivotChart report.).
   Calculated fields appear in the PivotTable Field List window. Calculated items appear as items (item: A subcategory of a field in PivotTable and PivotChart reports. For instance, the field "Month" could have items such as "January," "February," and so on.) within other fields.
2. Do one of the following:

   Delete a calculated field

   1. Click the report.
   2. On the PivotTable toolbar (toolbar: A bar with buttons and options that you use to carry out commands. To display a toolbar, use the Customize dialog box (point to Toolbars on the View menu and click Customize). To see more buttons, click Toolbar Options at the end of the toolbar.), click PivotTable or PivotChart, point to Formulas, and then click Calculated Field.
   3. In the Name box, click the field you want to delete.
   4. Click Delete.

Delete a calculated item

5. Click the field with the item you want to delete.
6. On the PivotTable toolbar (toolbar: A bar with buttons and options that you use to carry out commands. To display a toolbar, use the Customize dialog box (point to Toolbars on the View menu and click Customize). To see more buttons, click Toolbar Options at the end of the toolbar.), click PivotTable or PivotChart, point to Formulas, and then click Calculated Item.
7. In the Name box, click the item you want to delete.
8. Click Delete.

Note When you delete a formula from a PivotChart report or its associated PivotTable report, some chart formatting may be lost.

Tip

If you don't want to delete a formula permanently, you can hide the field or item. To hide a field, drag it out of the report, or click the dropdown arrow in the Data field and then clear its check box; it remains available in the field list. To hide an item, click the dropdown arrow in its field, and then clear the check box for the item.

Making use of Field buttons

Hiding the field buttons (field button: Button that identifies a field in a PivotTable or PivotChart report. You can drag the field buttons to change the layout of the report, or click the arrows next to the buttons to change the level of detail displayed in the report.) also hides the page field drop area (drop area: An area in a PivotTable or PivotChart report where you can drop fields from the Field List dialog box to display the data in the field. The labels on each drop area indicate the types of fields you can create in the report.), if your report doesn't have any page fields (page field: A field that's assigned to a page orientation in a PivotTable or PivotChart report. You can either display a summary of all items in a page field, or display one item at a time, which filters out the data for all other items.).

1. Click the PivotChart report.
2. On the PivotTable toolbar (toolbar: A bar with buttons and options that you use to carry out commands. To display a toolbar, click Customize on the Tools menu, and then click the Toolbars tab.), click PivotChart, and then select or clear the Hide PivotChart Field Buttons command.

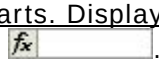
Tip

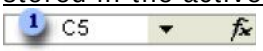
If you hide field buttons but want to label elements of your chart that were previously identified by field button names, you can add axis titles or text boxes to the chart.

To make data entry easier, or to limit entries to certain items that you define, you can create a drop-down list that gets its choices from cells elsewhere on the worksheet.

1. Type the entries for the drop-down list in a single column or row. Do not include blank cells in the list.
   If you type the list on a different worksheet from the data entry cell, define a name (name: A word or string of characters that represents a cell, range of cells, formula, or constant value. Use easy-to-understand names, such as Products, to refer to hard to understand ranges, such as Sales!C20:C30.) for the list.
   How?
   1. Select the cell, range of cells, or nonadjacent selections (nonadjacent selection: A selection of two or more cells or ranges that don't touch each other. When plotting nonadjacent selections in a chart, make

sure that the combined selections form a rectangular shape.) that you want to name.

2. Click the Name box at the left end of the formula bar (formula bar: A bar at the top of the Excel window that you use to enter or edit values or formulas in cells or charts. Displays the constant value or formula stored in the active cell.)  .



1 Name box

3. Type the name for the cells.
4. Press ENTER.

How?

1. Open the workbook that contains the list of drop-down entries.
2. Open the workbook where you want to validate cells, point to Name on the Insert menu, and then click Define.
3. In the Names in workbook box, type the name.
4. In the Refers to box, delete the contents, and keep the insertion pointer in the box.
5. On the Window menu, click the name of the workbook that contains the list of drop-down entries, and then click the worksheet that contains the list.
6. Select the cells containing the list.
7. In the Define Name dialog box, click Add, and then click Close.

2. Select the cell where you want the drop-down list.
3. On the Data menu, click Validation, and then click the Settings tab.
4. In the Allow box, click List.
5. If the list is in the same worksheet, enter a reference to your list in the Source box.
   If the list is elsewhere, enter the name you defined for your list in the Source box.
   Make sure the reference or name is preceded with an equal sign (=).
6. Make sure the In-cell drop-down check box is selected.
7. Specify whether the cell can be left blank: Select or clear the Ignore blank check box.
8. To display optional input instructions when the cell is clicked, click the Input Message tab, make sure the Show input message when cell is selected check box is selected, and then fill in the title and text for the message.
9. Specify how you want Microsoft Excel to respond when invalid data is entered.

   How?

   1. Click the Error Alert tab, and make sure the Show error alert after invalid data is entered check box is selected.
   2. Select one of the following options for the Style box:
      To display an information message that does not prevent entry of invalid data, click Information.
      To display a warning message that does not prevent entry of invalid data, click Warning.
      To prevent entry of invalid data, click Stop.
   3. Fill in the title and text for the message (up to 225 characters).
      Note If you don't enter a title or text, the title defaults to " Microsoft Excel" and the message to: "The value you entered is not valid. A user has restricted values that can be entered into this cell."

Importing data

Importing data from databases and files

You can import data to Excel from most data sources by pointing to Import External Data on the Data menu, clicking Import Data, and then choosing the data you want to import in the Select Data Source dialog box.
The Data Connection Wizard, available when you click New Source in the Select Data Source dialog box, makes it possible to import data from external data connections not available from the Select Data Source dialog box. These sources may include OLE DB data sources (including OLAP cubes and exchange servers) and any data sources a system administrator supplies. You cannot filter or join data in the Data Connection Wizard.
The default connection method when you import data using the Data Connection Wizard is through OLE DB providers. The resulting .odc (office data connection) files can be opened for viewing in Internet Explorer and edited in Excel, Notepad, and other Microsoft Office applications if the file doesn't point to an OLAP data source.
The Data Connection Wizard also provides access to a data source called a data retrieval service. A data retrieval service is a Web service installed on Windows SharePoint Services for connecting to and retrieving data. To use a data retrieval service, a client application, such as Excel, sends a query request over HTTP (HTTP: Internet protocol that delivers information on the World Wide Web. Makes it possible for a user with a client program to enter a URL (or click a hyperlink) and retrieve text, graphics, sound, and other digital information from a Web server.) to the data retrieval service on Windows SharePoint Services. The data retrieval service sends that request to the data source, and then passes the data that is returned to it back to the client application as XML. Importing data from a data retrieval service in Excel automatically creates a databound XML list in your worksheet. After adding a databound XML list to your worksheet, you can use the commands on the XML submenu of the Data menu or the List tool bar to refresh data, edit the query, or set the properties of the XML map associated with the XML list.
A default installation of Windows SharePoint Services provides a data retrieval service for connecting to data in SharePoint lists. A SharePoint site administrator can install the Microsoft Office Web Parts and Components to add additional data retrieval services for Microsoft SQL Server and Microsoft Business Solutions. The installation program for Microsoft Office Web Parts and Components is available on the Downloads on Microsoft Office Online.

Importing data with Microsoft Query

In most cases, you can import data by using the Import Data command as described in the section above. Use Query or another program only if you need to perform specialized query tasks such as the following:

- Filter rows or columns of data before they are brought into Excel.
- Create a parameter query (parameter query: A type of query that, when you run it, prompts for values (criteria) to use to select the records for the result set so that the same query can be used to retrieve different result sets.).
- Sort data before it is brought into Excel.
- Join multiple tables.

Microsoft Query provides a simple front end, easily accessible from within Excel, to perform these specialized query tasks.
You can use Query to set up ODBC data sources to retrieve data. In Query, you can use the Query Wizard to create a simple query (query: In Query or Access, a means of finding the records that answer a particular question you ask about the data stored in a database.), or you can use advanced criteria in Query to create a more complex query. You can access Query from Excel, or you can create a query from within the PivotTable and PivotChart Wizard.
You can also use Dynamic Data Exchange (DDE) (Dynamic Data Exchange (DDE): An established protocol for exchanging data between Microsoft Windows-based programs.) with Query. For more information about DDE, see Query Help.
To import data using Query, you must first:

- Install Query Query, including the Query Wizard, is an optional feature for Excel. Under most circumstances, you are prompted to install Query when you point to Import External Data on the Data menu and click New Database Query.
- Install ODBC drivers An ODBC driver (Open Database Connectivity (ODBC) driver: A program file used to connect to a particular database. Each database program, such as Access or dBASE, or database management system, such as SQL Server, requires a different driver.) is required to retrieve data in relational databases, text files, or Excel using Query. When you install Query, you automatically install a set of ODBC drivers. If you use a driver other than one installed with Query, you must install the driver separately.
- Install data source drivers A data source driver (data source driver: A program file used to connect to a specific database. Each database program or management system requires a different driver.) is required to retrieve OLAP source data. Query supports connecting to databases that are created by using SQL Server OLAP Services; when you installed Query, you automatically installed support for this type of OLAP database. To connect to other OLAP databases, you must install a data source driver and client software.

For more information, see Query Help.

Importing data from the Web

You can import data originating from a Web page by pointing to Import External Data on the Data menu and clicking New Web Query. You must have access to the World Wide Web (World Wide Web (WWW): The multimedia branch of the Internet that presents not only text, but also graphics, sound, and video. On the Web, users can easily jump from item to item, page to page, or site to site by using hyperlinks.) through your company's intranet or through a modem on your computer or network, or you can make a query against local HTML or XML sources.

Importing data with Visual Basic for Applications (VBA)

You can use a Visual Basic for Applications (VBA: A macro-language version of Microsoft Visual Basic that is used to program Windows applications and is included with several Microsoft applications.) macro (macro: An action or a set of actions you can use to automate tasks. Macros are recorded in the Visual Basic for Applications programming language.) to gain access to an external data source.

Depending on the data source, you will use either ActiveX Data Objects (ActiveX Data Objects (ADO): A data access interface that communicates with OLE DB-compliant data sources to connect to, retrieve, manipulate, and update data.) or Data Access Objects (Data Access Objects (DAO): A data access interface that communicates with Microsoft Jet and ODBC-compliant data sources to connect to, retrieve, manipulate, and update data and the database structure.) to retrieve data using VBA.

If you want to use a macro that you created in Excel version 5.0 or earlier, click Add-Ins on the Tools menu, and then make sure the ODBC Add-In check box is selected.

For information about creating Visual Basic for Applications macros, see Visual Basic Help (Microsoft Visual Basic Help: To get help for Visual Basic in Excel, point to Macro on the Tools menu, and then click Visual Basic Editor. On the Help menu, click Microsoft Visual Basic Help.).

Note While you are recording a macro that includes a query, Excel can't run the query in the background, even if you chose to run it that way. To change the recorded macro so that it runs in the background, edit the macro in the Visual Basic Editor and change the refresh method for the QueryTable object from "BackgroundQuery := False" to "BackgroundQuery := True".

Refreshing data and naming ranges

Refreshing data

Excel provides many options for refreshing imported data, including refreshing the data whenever you open the workbook and automatically refreshing data at timed intervals. You can continue to work in Excel while data is being refreshed, and you can also check the status of the refresh while it's being refreshed.
If your external data source (data source: A stored set of "source" information used to connect to a database. A data source can include the name and location of the database server, the name of the database driver, and information that the database needs when you log on.) requires a password (password: A word, phrase, or string of characters used to prevent unauthorized access to a database. To gain access to the database, you must enter the password correctly.) to gain access to the data, you can require that the password is entered each time the external data range (external data range: A range of data that is brought into a worksheet but that originates outside of Excel, such as in a database or text file. In Excel, you can format the data or use it in calculations as you would any other data.) is refreshed.
When an external data range expands and additional records are returned, Excel can fill formulas in adjacent columns or within the data range so that they remain next to the appropriate data.
You can also choose how to add new data to your worksheet.

Naming external data ranges

Excel automatically names an external data range as follows:

- External data ranges from Office Data Connection (Office Data Connection (ODC) file: A file that stores information about a connection to a data source (such as an OLE DB data source) and the data associated with the connection.) (ODC) files are named with the .odc file extension.
- External data ranges from databases are named with the name of the query; by default Query_from_source is the name of the data source you used to create the query.
- External data ranges from text files are named with the text file name.
- External data ranges from Web queries (Web query: A query that retrieves data stored on your intranet or the Internet.) are named with the name of the Web page from which the data was retrieved.

If your worksheet has more than one external data range from the same source, the ranges are numbered. For example, MyText, MyText_1, MyText_2, and so on.
You can also change the name of an external data range in the Data Range Properties dialog box

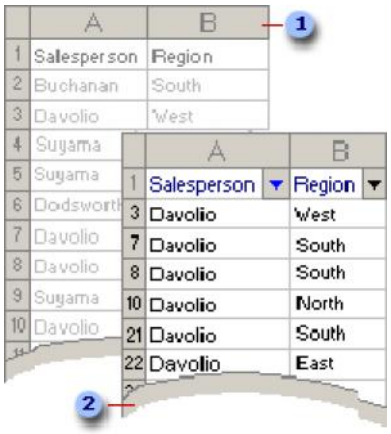
TASK7

To make use of the Filtering Concept

Filtering is a quick and easy way to find and work with a subset of data in a range. A filtered range displays only the rows that meet the criteria (criteria: Conditions you specify to limit which records are included in the result set of a query or filter.) you specify for a column. Microsoft Excel provides two commands for filtering ranges: AutoFilter and Advanced Filter.
Unlike sorting, filtering does not rearrange a range. Filtering temporarily hides rows you do not want displayed. When Excel filters rows, you can edit, format, chart, and print your range subset without rearranging or moving it.

Use AutoFilter for simple criteria and to filter by selection

When you use the AutoFilter command, AutoFilter arrows appear to the right of the column labels in the filtered range.



1 Unfiltered range
2 Filtered range
Microsoft Excel indicates the filtered items with blue.
You use custom AutoFilter to display rows that contain either one value or another. You can also use custom AutoFilter to display rows that meet more than one condition for a column; for example, you might display rows that contain values within a specific range (such as a value of Davolio).
Top of Page

Use Advanced Filter for more complex criteria

The Advanced Filter command on the Data menu lets you use complex criteria (criteria: Conditions you specify to limit which records are included in the result set of a query. For example, the following criterion selects records for which the value for the Order Amount field is greater than 30,000: Order Amount > 30000.) to filter a range, but it works differently from the AutoFilter command in several important ways.

- It displays the Advanced Filter dialog box instead of the Custom AutoFilter dialog box.
- You do not type the complex criteria in the Advanced Filter dialog box as you do in the Custom AutoFilter dialog box. Rather, you type the complex criteria in a criteria range on the worksheet and above the range you want to

filter. Excel uses the separate criteria range in the Advanced Filter dialog box as the source for the complex criteria.

- Although you can filter a range in place, like the AutoFilter command, the Advanced Filter command does not display drop-down lists for the columns.

Filter for unique records

- Select the column or click a cell in the range or list you want to filter.
- On the Data menu, point to Filter, and then click Advanced Filter.
- Do one of the following.
  - To filter the range or list in place, similar to using AutoFilter, click Filter the list, in-place.
  - To copy the results of the filter to another location, click Copy to another location. Then, in the Copy To box, enter a cell reference.

    To select a cell, click Collapse Dialog to temporarily hide the dialog box. Select the cell on the worksheet, and then press Expand Dialog .
- Select the Unique records only check box.

Note Once you filter for unique values, you can copy them to another worksheet and then archive or delete the original worksheet.

Filters for different type of data cells

Filter for the smallest or largest number

1. Click the arrow in the column that contains the numbers, and click (Top 10...).
2. In the box on the left, click Top, or Bottom.
3. In the box in the middle, enter a number.
4. In the box on the right, click Items.

Filter a range for rows that contain specific text

1. Click the arrow in the column that contains the numbers, and click (Custom).
2. In the box on the left, click equals, or does not equal, contains, or does not contain.
3. In the box on the right, enter the text you want.
4. If you need to find text values that share some characters but not others, use a wildcard character.

   How?

   The following wildcard characters can be used as comparison criteria (criteria: Conditions you specify to limit which records are included in the result set of a query or filter.) for filters, and when searching and replacing content.

Use	To find
? (question mark)	Any single character For example, sm?th finds "smith" and "smyth"
* (asterisk)	Any number of characters For example, *east finds "Northeast" and "Southeast"
~ (tilde) followed by ?, *, or ~	A question mark, asterisk, or tilde For example, fy91~? finds "fy91?"

1. To add another criteria, click And or Or, and repeat the previous step.

Filter for blank or nonblank cells

Click the arrow in the column that contains the numbers, then click (Blanks) or (NonBlanks).

Note The Blanks and NonBlanks options are available only if the column you want to filter contains a blank cell.

- Filter for numbers greater than or less than another number
  1. Click the arrow in the column that contains the numbers, and click (Custom).
  2. In the box on the left, click is greater than, is less than, is greater than or equal to, or is less than or equal to.
  3. In the box on the right, enter a number.
  4. To add another criteria, click And or Or, and repeat the previous step.
- Filter for a number equal to or not equal to another number
  1. Click the arrow in the column that contains the numbers, and click (Custom).
  2. In the box on the left, click equals, or does not equal.
  3. In the box on the right, enter a number.
  4. To add another criteria, click And or Or, and repeat the previous step.
- Filter for the beginning or end of a text string
  1. Click the arrow in the column that contains the numbers, and click (Custom).
  2. In the box on the left, click begins with, or does not begin with, or ends with, or does not end with.
  3. In the box on the right, enter the text you want.
  4. If you need to find text values that share some characters but not others, use a wildcard character.
     - How?

     The following wildcard characters can be used as comparison criteria (criteria: Conditions you specify to limit which records are included in the result set of a query or filter.) for filters, and when searching and replacing content.

Use	To find
? (question mark)	Any single character For example, sm?th finds "smith" and "smyth"
* (asterisk)	Any number of characters For example, *east finds "Northeast" and "Southeast"
~ (tilde) followed by ?, *, or ~	A question mark, asterisk, or tilde For example, fy91~? finds "fy91?"

  1. To add another criteria, click And or Or, and repeat the previous step.
- Filter for the top or bottom numbers by percent
  1. Click the arrow in the column that contains the numbers, and click (Top 10...).
  2. In the box on the left, click Top or Bottom.
  3. In the box in the middle, enter a number.
  4. In the box on the right, click Percent.

Notes

- When you apply a filter to a column, the only filters available for other columns are the values visible in the currently filtered range.
- Only the first 1000 unique entries in a list appear when you click the arrow .

To Protect Workbook

To allow only authorized users to view or modify your data, you can help secure your entire workbook file with a password (password: A way to restrict access to a workbook, worksheet, or part of a worksheet. Excel passwords can be up to 255 letters, numbers, spaces, and symbols. You must type uppercase and lowercase letters correctly when you set and enter passwords.).

1. On the File menu, click Save As.
2. On the Tools menu, click General Options.
3. Do either or both of the following:
   - If you want users to enter a password (password: A way to restrict access to a workbook, worksheet, or part of a worksheet. Excel passwords can be up to 255 letters, numbers, spaces, and symbols. You must type uppercase and lowercase letters correctly when you set and enter passwords.) before they can view the workbook, type a password in the Password to open box, and then click OK.
   - If you want users to enter a password before they can save changes to the workbook, type a password in the Password to modify box.

   Note Unlike passwords you specify in the Password to open box, passwords you specify in the Password to modify box are not encrypted. These passwords are only meant to give specific users permission to modify workbook data. For optimal password security, it's best to assign both passwords. An encrypted password to access the workbook, and one to provide specific users with permission to modify its content.
   Important Use strong passwords that combine uppercase and lowercase letters, numbers, and symbols. Weak passwords don't mix these elements. Strong password: Y6dh!et5. Weak password: House27. Use a strong password that you can remember so that you don't have to write it down.
4. If you want to use a different encryption type, click Advanced, click the type you want in the Choose an encryption type list, and then click OK.
5. If needed, specify the number of characters you want in the Choose a key length box.
   Note Document property encryption is enabled by default for most encryption types and providers. It prevents unauthorized users from viewing summary and custom file properties (such as the author or any custom file information) in the Properties dialog box. When users right-click the password-protected file, and then click Properties, information won't be available on the Summary tab and Custom tab. Authorized users, however, can open the file and view all file properties (File menu, Properties command). To disable document property encryption, clear the Encrypt document properties check box.
6. Click OK.
7. When prompted, retype your passwords to confirm them.
8. Click Save.
9. If prompted, click Yes to replace the existing workbook.

Note You can also secure a workbook with a password on the Security tab of the Options dialog box (Tools menu, Options command).

Workbook elements

Protect workbook elements

1. On the Tools menu, point to Protection, and then click Protect Workbook.
2. Do one or more of the following:
   - To protect the structure of a workbook so that worksheets in the workbook can't be moved, deleted, hidden, unhidden, or renamed, and new worksheets can't be inserted, select the Structure check box.
   - To protect windows so that they are the same size and position each time the workbook is opened, select the Windows check box.

- To prevent others from removing workbook protection, type a password, click OK, and then retype the password to confirm it.

Protect elements in a shared workbook

1. If the workbook is already shared (shared workbook: A workbook set up to allow multiple users on a network to view and make changes at the same time. Each user who saves the workbook sees the changes made by other users.), and you want to assign a password to protect the sharing, unshare the workbook.

   How?

   1. Have all other users save and close the shared workbook. If other users are editing, they will lose any unsaved work.
   2. Unsharing the workbook deletes the change history (change history: In a shared workbook, information that is maintained about changes made in past editing sessions. The information includes the name of the person who made each change, when the change was made, and what data was changed.). If you want to keep a copy of this information, print out the History worksheet (History worksheet: A separate worksheet that lists changes being tracked in a shared workbook, including the name of the person who made the change, when and where it was made, what data was deleted or replaced, and how conflicts were resolved.) or copy it to another workbook.

      How?

      1. On the Tools menu, point to Track Changes, and then click Highlight Changes.
      2. In the When box, click All.
      3. Clear the Who and Where check boxes.
      4. Select the List changes on a new sheet check box, and then click OK.
      5. Do one or more of the following:
         - To print the History worksheet, click Print .
         - To copy the history to another workbook, select the cells you want to copy, click Copy , switch to another workbook, click where you want the copy to go, and click Paste .

         Note You may also want to save or print the current version of the workbook, because this history might not apply to later versions. For example, cell locations, including row numbers, in the copied history may no longer be current.
   3. On the Tools menu, click Share Workbook, and then click the Editing tab.
   4. Make sure that you are the only person listed in the Who has this workbook open now box.
   5. Clear the Allow changes by more than one user at the same time check box.

      If this check box is not available, you must unprotect the workbook before clearing the check box.

      How?

      1. Click OK, point to Protection on the Tools menu, and then click Unprotect Shared Workbook.
      2. Enter the password if prompted, and then click OK.
      3. On the Tools menu, click Share Workbook, and then click the Editing tab.
   6. When prompted about the effects on other users, click Yes.

2. Set other types of protection if you want: Give specific users access to ranges, protect worksheets, protect workbook elements, and set passwords for viewing and editing.
3. On the Tools menu, point to Protection, and then click Protect Shared Workbook or Protect and Share Workbook.
4. Select the Sharing with track changes check box.
5. If you want to require other users to supply a password to turn off the change history (change history: In a shared workbook, information that is maintained about changes made in past editing sessions. The information includes the name of the person who made each change, when the change was made, and what data was changed.) or remove the workbook from shared use, type the password in the Password box, and then retype the password when prompted.
6. If prompted, save the workbook.

To Protect Worksheets

To prevent anyone from accidentally or deliberately changing, moving, or deleting important data, you can protect certain worksheet (worksheet: The primary document that you use in Excel to store and work with data. Also called a spreadsheet. A worksheet consists of cells that are organized into columns and rows; a worksheet is always stored in a workbook.) or workbook elements, with or without a password (password: A way to restrict access to a workbook, worksheet, or part of a worksheet. Excel passwords can be up to 255 letters, numbers, spaces, and symbols. You must type uppercase and lowercase letters correctly when you set and enter passwords.).
Important Worksheet or workbook element protection should not be confused with file security. It is not meant to make your workbook more secure, and cannot protect it from users who have malicious intent.

Worksheet elements

Protect worksheet elements from all users

1. Switch to the worksheet you want to protect.
2. Unlock any cells you want users to be able to change: Select each cell or range, click Cells on the Format menu, click the Protection tab, and then clear the Locked check box.
3. Hide any formulas that you don't want to be visible: Select the cells with the formulas, click Cells on the Format menu, click the Protection tab, and then select the Hidden check box.
4. Unlock any graphic objects you want users to be able to change.
   How?
   You don't need to unlock buttons or controls for users to be able to click and use them. You can unlock embedded charts, text boxes, and other objects created with the drawing tools that you want users to be able to modify. To see which elements on a worksheet are graphic objects, click Go To on the Edit menu, click Special, and then click Objects.
   1. Hold down CTRL and click each object that you want to unlock.
   2. On the Format menu, click the command for the object you selected: AutoShape, Object, Text Box, Picture, Control, or WordArt.
   3. Click the Protection tab.
   4. Clear the Locked check box, and if present, clear the Lock text check box.
5. On the Tools menu, point to Protection, and then click Protect Sheet.
6. Type a password for the sheet.

Note The password is optional; however, if you don't supply a password, any user will be able to unprotect the sheet and change the protected elements. Make sure you choose a password you can remember, because if you lose the password, you cannot gain access to the protected elements on the worksheet.

7. In the Allow all users of this worksheet to list, select the elements that you want users to be able to change.
8. Click OK. If prompted, retype the password.

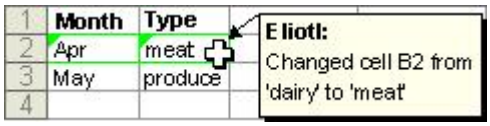
Give specific users access to protected ranges

In order to give specific users access to ranges, your computer must be running Windows 2000 or later and it must be on a domain.

1. On the Tools menu, point to Protection, and then click Allow Users to Edit Ranges. (This command is available only when the worksheet is not protected.)
2. Click New.
3. In the Title box, type a title for the range you're granting access to.
4. In the Refers to cells box, type an equal sign (=), and then type a reference or select the range.
5. In the Range password box, type a password to access the range. The password is optional; if you don't supply a password, any user will be able to edit the cells.
6. Click Permissions, and then click Add.
7. Locate and select the users to whom you want to grant access. If you want to select multiple users, hold down CTRL while you click the names.
8. Click OK twice. If prompted, retype the password.
9. Repeat the previous steps for each range for which you're granting access.
10. To retain a separate record of the ranges and users, select the Paste permissions information into a new workbook check box in the Allow Users to Edit Ranges dialog box.
11. Protect the worksheet: Click Protect Sheet in the Allow Users to Edit Ranges dialog box.
12. In the Protect Sheet dialog box, make sure the Protect worksheet and contents of locked cells check box is selected, type a password for the worksheet, click OK, and then retype the password to confirm.

Note A sheet password is required to prevent other users from being able to edit your designated ranges. Make sure you choose a password you can remember, because if you lose the password, you cannot gain access to the protected elements on the worksheet.

To understand the use of Track changes and its applications



Microsoft Excel can maintain and display information about how a worksheet was changed.

Change tracking logs details about workbook changes each time you save a workbook. You can use this history to understand what changes were made, and to accept or reject revisions.

This capability is particularly useful when several users edit a workbook. It's also useful when you submit a workbook to reviewers for comments, and then want to merge input into one copy, selecting which changes and comments to keep.

How change tracking works

When you view the change history (change history: In a shared workbook, information that is maintained about changes made in past editing sessions. The information includes the name of the person who made each change, when the change was made, and what data was changed.), either directly on the worksheet or

on a separate History worksheet (History worksheet: A separate worksheet that lists changes being tracked in a shared workbook, including the name of the person who made the change, when and where it was made, what data was deleted or replaced, and how conflicts were resolved.), you see who made each change, what type of change was made, when it was made, what cells were affected, and what data was added or deleted.

Change tracking is available only in shared workbooks (shared workbook: A workbook set up to allow multiple users on a network to view and make changes at the same time. Each user who saves the workbook sees the changes made by other users.). In fact, when you turn on change tracking, the workbook automatically becomes a shared workbook, although you don't have to store the workbook where others can access it.

Change tracking differs from undo and backup Unlike the Undo button, you can't use the change history to back out changes. However, the history includes a record of any deleted data, so that you can copy lost data from the History worksheet back to the original cells. Because change tracking isn't designed to help you return to earlier versions of a workbook, you should continue to back up workbooks that have change tracking in effect.

Some types of changes aren't tracked Changes you make to cell contents are tracked, but other changes, including formatting changes, are not. Some Excel features are unavailable in shared workbooks and therefore aren't tracked.

History is kept only for a set interval When you turn on change tracking, the history is kept for 30 days. This limit keeps workbook size manageable. You can increase or decrease the number of days of history to keep. If you want to keep the history indefinitely, you can specify a large number of days, or you can make periodic copies of the history information.

How history gets deleted Excel determines what history is kept by counting back from the current date. Each time you close the workbook, Excel erases any part of the change history that is older than the number of days in effect the last time the workbook was saved.

For example, if you're keeping 30 days of change history, and you open a workbook for the first time in two months, you'll be able to view the history from two months ago. However, when you close this workbook, the history from 31 to 60 days ago is deleted.

If you turn off change tracking or stop sharing the workbook, all change history is permanently deleted.

How to use change tracking

Excel provides the following ways to access and use the stored change history (change history: In a shared workbook, information that is maintained about changes made in past editing sessions. The information includes the name of the person who made each change, when the change was made, and what data was changed.).

- **Highlight onscreen** Excel can outline changed areas in a different color for each user and display the basic details as a comment when you rest the pointer over each changed cell. Onscreen highlighting is useful when a workbook has only a few changes, or you want to see at a glance what's changed.
- **History worksheet** Excel can display a separate worksheet that provides full details in list form, so that you can filter (filter: To display only the rows in a list that satisfy the conditions you specify. You use the AutoFilter command to display rows that match one or more specific values, calculated values, or conditions.) to find changes of interest and print the information. This History worksheet (History worksheet: A separate worksheet that lists changes being tracked in a shared workbook, including the name of the person who made the change, when and where it was made, what data was deleted or replaced,

and how conflicts were resolved.) is useful when a workbook has lots of changes, or you want to investigate what happened in a series of changes.

- Review changes Excel can step you through the changes in sequence using a dialog box that lets you decide whether to accept or reject each change. This method is useful when you're evaluating and working with comments from others.

To make use of Effective sorting

Sort rows in ascending order (A to Z, or 0 to 9) or descending order (Z to A, or 9 to 0)

1. Click a cell in the column you would like to sort by.
2. Click Sort Ascending or Sort Descending .

Note In a PivotTable report, Microsoft Excel uses the selected field to sort.

Sort rows by two or three criteria (columns)

For best results, the range you sort should have column labels, or headers.

1. Click a cell in the range you want to sort.
2. On the Data menu, click Sort.
3. In the Sort by and Then by boxes, click the columns you want to sort, starting with the most important.
4. Select any other sort options you want, and then click OK.

Sort rows by four criteria (columns)

1. Click a cell in the range you want to sort.
2. On the Data menu, click Sort.
3. In the first Sort by box click the column of least importance.
4. Click OK.
5. On the Data menu, click Sort.
6. In the Sort by and Then by boxes, click the other three columns you want to sort, starting with the most important.
7. Select any other sort options you want, and then click OK.

Sort rows by months or weekdays

1. Select a cell or range you want to sort.
2. On the Data menu, click Sort.
3. In the Sort by box, click the column you want to sort.
4. Click Options.
5. Under First key sort order, click the custom sort order you want, and then click OK.
6. Select any other sort options you want, and then click OK.

Use your own data as the sort order

1. In a range of cells, enter the values you want to sort by, in the order you want them, from top to bottom. For example:

   Data

   High

   Medium

   Low
2. Select the range.
3. On the Tools menu, click Options, and then click the Custom Lists tab.
4. Click Import, and then click OK.
5. Select a cell in the range you want to sort.
6. On the Data menu, click Sort.
7. In the Sort by box, click the column you want to sort.
8. Click Options.
9. Under First key sort order, click the custom list you created. For example, click High, Medium, Low.

10. Click OK.
11. Select any other sort options you want, and then click OK.

Note You can't use a custom sort order in a Then by box. The custom sort order applies only to the column specified in the Sort by box. To sort multiple columns by using a custom sort order, sort by each column separately. For example, to sort by columns A and B, in that order, first sort by column B, and then specify the custom sort order by using the Sort Options dialog box. Next, sort the range by column A.

Sort columns instead of rows

Most of the time, you sort rows. This procedure sorts the order of columns.

1. Click a cell in the range you want to sort.
2. On the Data menu, click Sort.
3. Click Options.
4. Under Orientation, click Sort left to right, and then click OK.
5. In the Sort by and Then by boxes, click the rows you want to sort.

Note When you sort rows that are part of a worksheet outline, Microsoft Excel sorts the highest-level groups (level 1) so that the detail rows or columns stay together, even if the detail rows or columns are hidden.

Sort one column without affecting the others

Warning Be careful using this feature. Sorting by one column may produce results you don't want, such as moving cells in that column away from other cells in the same row.

1. Click the column heading to select the column you want to sort.
2. Click Sort Ascending or Sort Descending .
   The Sort Warning dialog box is displayed.
3. Select Continue with the current selection.
4. Click Sort.

If the results are not what you want, click Undo .

Notes

- To exclude the first row of data from the sort, because it is a column header, on the Data menu, click Sort, and then under My data range has, click Header row.
- To do a case-sensitive sort, on the Data menu click Sort, click Options, and then select Case sensitive.

To find the top or bottom values in a range, such as top 10 grades or bottom 5 sales amounts, use AutoFilter.

Microsoft PowerPoint

Task1

Task1: Building a Mutually Rewarding Partnership

Welcome to the first task in PowerPoint. Here you will learn how to create basic presentations. Presentation is a powerful mechanism to create impressive first impressions, and PowerPoint facilitates you in achieving this. Let us now lay the foundation which will help you present your business plan to the Venture Capitalist. You need to build a mutually trusting relationship with the VC in order to clinch a deal. Let us now practice creating such a presentation. Recreate the presentation shown in the task.

task, to learn about:

1. Formatting: Color, font type, font size, font style etc.
2. Header and Footer
3. Bullets and Numbering
4. Drawing Toolbar: Auto shapes, Textboxes, etc
5. Design Template
6. Introduction to custom animation.

Task2

Creativity Session

Having established a relationship with the venture capitalist now let your creativity flow to come up with novel ideas that can convince him to fund your ideas. Brainstorming is a good way to do some out of the box thinking. The presentation shown in the task gives you tips on how to conduct a creativity session to generate ideas. Create a similar presentation so that you know how to do brainstorming.

task, to learn about:

1. Slide transition
2. Master slide view
3. Insert picture – clipart, image
4. Action button
5. Drawing tool bar – lines, arrows
6. Hyperlink
7. Custom animation
8. Hide slide
9. Wash out

Task3:

Marketing plan

The way you sell your product to the venture capitalist really decides whether your project will be funded or not. Using the right strategies to market your product is crucial. Learn here how a typical marketing presentation should look like and create a similar one yourself.

task, to learn about:

10. Slide Layout
11. fill color
12. Inserting object, picture (effects), graph, word art
13. comments
14. Security – password

Task4

Business Presentation

Having learnt how to create presentations, build relationships, think creatively and market your product, you are now ready to prepare your presentation to the venture capitalist. Practice your business plan presentation by creating a similar presentation as shown in the task given.

task, to learn about:

15. Tables and Borders
16. Rehearse timings
17. Recording Narrations
18. Audio and video files
19. Inserting files, merging files, creating custom shows