

CSE 100: Computer Skills

Lecture 5: Application Programs

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Application programs

- Application programs aimed at particular purpose
- Users acquire these softwares to install on top of operating systems
- Examples include drawing, word processing, video editing etc

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Acquiring Software

- Commercial software
 - Software that must be purchased
 - Stand alone products
 - Solve one type of problem
 - Software suites
 - Integrated tools that work together
 - Solve many problems
- Shareware
 - Try before you buy
 - May deactivate if not purchased

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Acquiring Software

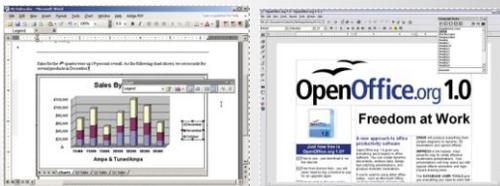
- Freeware
 - No obligation to purchase
 - Donations often accepted
 - Software may be distributed freely
 - Public domain software
- Open source
 - Programs distributed with source code
 - Allows users to modify the software
 - Modifications and comments are welcome
 - Linux and OpenOffice

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Commercial

Open source



Application Software

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WORD PROCESSOR

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Word Processing Programs

- Creates text documents
- Graphics and other objects are supported
- Professional quality can be achieved
- Simple web pages may be created
- Used to write letters, reports, thesis, book, memo etc
- Two different types
 - WYSIWYG (MS- Word, Lotus write etc)
 - Non-WYSIWYG (TEX, LATEX etc)

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Word Processing Programs [WYSIWYG]

- Common Word processors
 - Microsoft Word
 - Word Perfect
 - Word Pro
 - WordStar
 - Open Office

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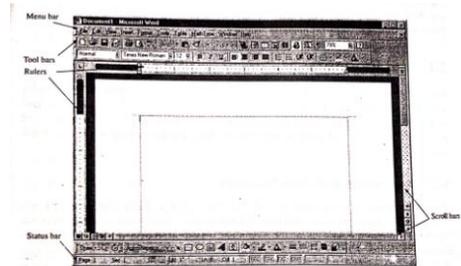
Word Processing Programs [WYSIWYG]

- Interface
 - Document area
 - Menu bar
 - Toolbars
 - Rulers
 - Scroll bars
 - Status bars

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Word Processing Programs [MS-WORD]



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Word Processing Programs

- Entering and editing text
 - Text is entered by typing
 - Cursor indicates position
 - Blocks of text can be manipulated
 - Most other programs include text tools

To help even out the sudden changes in a river, communities build reservoirs. If there is a drought or sudden demand for water, water from the reservoir supplements the river. As the river's water level rises with rain, the reservoir absorbs the extra water to prevent floods. If there is a sudden change in the rate of flow, or a burst of waves, the reservoir cushions the banks from changing forces. A UPS is like a reservoir for electricity. As your electricity fluctuates, the UPS absorbs and supplements the flow.

To fully appreciate how helpful a UPS is, take the water analogy one step further and think of the analogy in your home. If someone is drawing water when you aren't allowed, the other people could stop in the water pressure and you notice that the water pressure isn't as high as it should be. Then, if someone else finishes a task, you can expect the flow of cold water to momentarily stop when more. When the toilet flushes bring so, you can expect a sudden return of the cold water. And, when the original person drawing water stops, you notice a sudden increase in water pressure. Once you're through fiddling with the faucet, you appreciate how nice a personal reservoir could be. The electricity in your home works much the same way, so a UPS gives a nice way to even out the flow so you can avoid any damage or an out.

What Are the Most Common Electrical Problems?

Electrical problems come in all types, from the nearly harmless minor fluctuation in the voltage level, to

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Word Processing Programs

- Entering and editing text
 - Ctrl + arrow key moves cursor a word
 - Unwanted text can be removed by pressing the delete key
 - Text erased by mistake can be brought back by **undo** operation
 - Block operation commonly done by pressing and holding left mouse button and moving in desired direction
 - Cursor movement operation while pressing shift can also select text
 - Cut operation (Ctrl + x) erases selected texts but retains a copy in the clipboard
 - Copy operation (Ctrl + C) leaves the selected text
 - Text can be pasted using paste command (Ctrl + v)

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Word Processing Programs

- Formatting text
 - Controls the document's appearance
- Character formatting tools
 - Fonts
 - Type style
- Paragraph formatting tools
 - Line spacing
 - Tabs
- Document formatting tools
 - Margins
 - Headers
 - Number of columns

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Word Processing Programs (Non WYSIWYG)

- WYSIWYG word processor are easy to use and fast to write simple documents
- Gets complicated for large documents with large number of images, drawings and mathematics
- In such case typesetting language is used
- TEX and LATEX are common typesetting language
- A text editor is used to typeset in LATEX
- Different commands are used to indicate different formatting
- The TEX file needs to be converted to PDF for printing

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Word Processing in Bengali

- Word processing in Bengali requires a font set of Bengali characters
- In old days different software used different key mapping for different font
- Now standardized with the advent of unicode

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SPREADSHEET

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Spreadsheet Programs

- Calculates numbers and finances
- Data viewable in many ways
 - Tables
 - Graphs/Charts
- Complex calculations can be automated

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Spreadsheet Programs

- Common Spreadsheet programs
 - MS Excel
 - Quattro Pro
 - VisiCalc
 - Open Office

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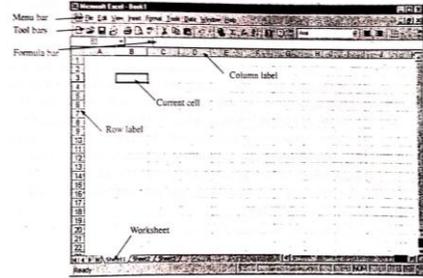
Spreadsheet Programs

- Interface
 - Rows, columns and cells
 - Cell holds data or formulas
 - Formula bar
 - Labels describe cell contents
 - Values
 - Formulas

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Spreadsheet Programs [MS-Excel]



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Spreadsheet Interface

The image shows a screenshot of an Excel spreadsheet titled 'Production Line Errors: Men's Dress Shoes (March 2006)'. The spreadsheet has columns for 'Outlets', 'Backstay', 'Ankle Patch', 'Eyelets', 'Liner', 'Upper', 'Piping', and 'Label'. It lists data for four different lines (Line 1, Line 2, Line 3, Line 4) with 'Att' (Attended) and 'Pnt' (Punctured) counts for each category. A 'Total' row and an 'Average' row are at the bottom.

	Outlets	Backstay	Ankle Patch	Eyelets	Liner	Upper	Piping	Label
Line 1								
Att (Sh)	48	92	80	42	64	18	21	44
Pnt (Sh)	49	89	87	40	61	21	22	42
Line 2								
Att (Sh)	42	86	94	42	62	20	24	41
Pnt (Sh)	45	89	97	43	66	21	25	43
Line 3								
Att (Sh)	51	89	89	39	60	22	20	40
Pnt (Sh)	52	91	91	39	63	24	21	45
Line 4								
Att (Sh)	39	87	89	88	59	20	23	39
Pnt (Sh)	41	88	90	91	60	24	22	45
Total:	367	711	735	426	485	178	178	339
Average:	45.9	88.9	91.9	53.3	60.6	22.3	22.3	42.4

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Spreadsheet

- Common formula of spreadsheet include
 - SUM
 - AVERAGE
 - COUNT, etc
- Different Chart type possible
 - Bar chart
 - Line Chart
 - Pie chart, etc

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Spreadsheet

- Cells and worksheets can be formatted
- Format includes
 - Font
 - Alignment
 - Decimal place
 - Bounding box, etc

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• **POWERPOINT**

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Presentation Programs

- Creates slides or transparencies
- Complete set is a presentation
- Enhances a speech or lecture
- Color and animation enhance the slides

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Presentation Programs

- Common Presentation Programs
 - MS PowerPoint
 - Lotus Freelance
 - Corel Presentations

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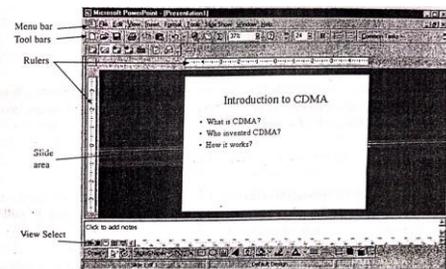
Presentation Programs

- Interface
 - Similar to a word processor
 - Slide window
 - Outline window
 - Speaker notes

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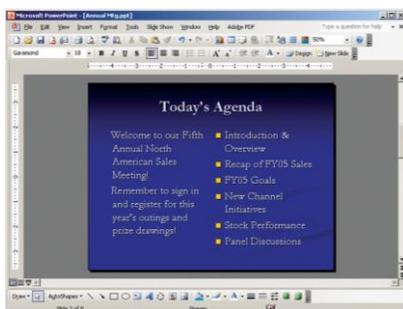
Presentation Programs [PowerPoint]



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Presentation Interface



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Presentation Programs

- Creating a presentation
 - Templates can simplify the process
 - Build the slides
 - Pick a layout
 - Enter the desired text
 - Apply special formatting
 - Continue adding slides in order
 - Apply slide transitions if desired

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Presentation Programs

- Presenting slide shows
 - Use to enhance a speech
 - Mouse click advances to next slide
 - Animations and other effect can be added for enhancement of the presentation
 - Physical transparencies on an overhead
- Delivering Presentation
 - Computer screen delivery
 - Large monitor delivery
 - Data projector

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Personal Information Managers

- PIM software
- Keep track of contact information
- Track upcoming events and times
- MS Outlook is popular

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Personal Information Managers

- Data organization
 - Contact information organized by last name
 - Users may search for data
 - Appointment reminders can be set



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Self Study

- Section 5.4 : Database Programs

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Homework Based on Lecture 5

- Questions from Chapter 5, Introduction to computers by Mohammed Alamgir
- 1,3,4,5,8,9,10,15,18,19,22,23,25,,26

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END

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