

Popular Applications Software

A. Application software classification

Application software falls into two general categories; horizontal applications and vertical applications. Horizontal applications are the most popular and widespread in departments or companies. Vertical applications are niche products, designed for a particular type of business or division in a company.

There are many types of application software:

- An application suite consists of multiple applications bundled together. They usually have related functions, features and user interfaces, and may be able to interact with each other, e.g. open each other's files. Business applications often come in suites, e.g. Microsoft Office, OpenOffice.org and iWork, which bundle together a word processor, a spreadsheet, etc.; but suites exist for other purposes, e.g. graphics or music.
- Enterprise software addresses the needs of organization processes and data flow, often in a large distributed environment. (Examples include financial systems, customer relationship management (CRM) systems and supply-chain management software). Departmental Software is a sub-type of enterprise software with a focus on smaller organizations or groups within a large organization. Examples include travel expense management and IT Helpdesk)
- Enterprise infrastructure software provides common capabilities needed to support enterprise software systems. (Examples include databases, email servers, and systems for managing networks and security.)
- Information worker software lets users create and manage information, often for individual projects within a department, in contrast to enterprise management. Examples include time management, resource management, documentation tools, analytical, and collaborative. Word processors, spreadsheets, email and blog clients, personal information system, and individual media editors may aid in multiple information worker tasks.
- Content access software is used primarily to access content without editing, but may include software that allows for content editing. Such software addresses the needs of individuals and groups to consume digital entertainment and published digital content. (Examples include media players, web browsers, and help browsers.)
- Educational software is related to content access software, but has the content and/or features adapted for use in by educators or students. For example, it may deliver evaluations (tests), track progress through material, or include collaborative capabilities.
- Simulation software simulates physical or abstract systems for either research, training or entertainment purposes.
- Media development software generates print and electronic media for others to consume, most often in a commercial or educational setting. This includes graphic-art software, desktop publishing software, multimedia development software, HTML editors, digital-animation editors, digital audio and video composition, and many others.^[2]

- *Product engineering software* is used in developing hardware and software products. This includes computer-aided design (CAD), computer-aided engineering (CAE), computer language editing and compiling tools, integrated development environments, and application programmer interfaces.

b. Brief description of some application packages

i. Word Processing Packages

Word processing software is used to create, manipulate, and print documents. Documents can be any kind of text material. Some examples of documents are letters, memos, term papers, reports, and contracts.

The beauty of the computer word processor is that users can make any changes or corrections before printing out the document. Even after usersr document is printed out, users can easily go back and make changes. Users can then print it out again. Popular word processing packages include WordPerfect, MS-Word, and MacWrite. These word processing packages allow users to do the following interesting features:

- **Word Wrap/Enter Key:** One outstanding word processing feature is a word wrap. A word processor decides for Users and automatically moves the cursor to the next line. As users keep typing, the words "wrap around" to the next line. To begin a new paragraph or leave a blank line, users press the Enter key.
- **Search/Replace:** A search command allows users to find any word or number that users know exists in usersr document. When users search, the cursor will move to the first place where the item appears. The replace command automatically replaces the word users search for with another word. The search and replace commands are useful for finding and fixing errors.
- **Block/Move:** The portion of text users wish to move is a block. Users mark the block by giving commands that produce highlighting, a band of light over the area. The task of moving the block is called a block move. The block command may also be used to delete text or to copy chunks of text into another document.
- **Margins:** Margins may be justified to right, left or full (right and left at the same time) in the most word processing packages. That is, they may be evened up to the right, left or both side simultaneously.
- **Centering/Emphasizing:** Headings of a document may be centered. Words or phrases may be typed underlined or boldface (extra dark lettering) for emphasis.
- **Spelling Checker:** A spelling- checker program can check spelling errors in a document automatically.
- **Thesaurus:** This programs enable users to quickly find the right word or an alternative word by presenting users with an on-screen thesaurus.
- **Mail Merge:** This feature allows users to merge different names and addresses so that users can mail out the same form letter to different people.
- **Desktop Publishing:** Today's advanced word processing programs can perform desktop publishing capabilities. This feature enables users to mix text and graphics to produce newsletters and other publications of nearly professional quality.

- **Outliner:** Sometimes called *idea processors*. It helps users organize and outline usersr thoughts before users prepare a document or develop a presentation.
- **Grammar/Style Checker:** These programs can be used to identify and correct grammar and punctuation errors.
- **Importing:** Most of the programs have an *importing* feature. Files may be retrieved from nontext programs such as spreadsheets and graphics and added to the word processing program.

ii. Spreadsheet Packages

A spreadsheet is an electronic worksheet used to organize and manipulate numbers and display options for what-if analysis. The electronic spreadsheet has rows and columns stored in the computer's memory and displayed on its video screen.

Electronic spreadsheets allow users to try out various *what-if* kinds of possibilities. That is a powerful feature. Users can manipulate numbers by using stored formulas and calculate different outcomes.

A spreadsheet has several parts. The *worksheet area* of the spreadsheet has *column headings* across the top and *row headings* down the left-hand side. The intersection of a column and row is called a *cell*. The cell holds a unit of information. The position of a cell is called the *cell address*. A *cell pointer* (spreadsheet cursor) indicates where data is to be entered or changed in the spreadsheet.

Popular electronic spreadsheet packages include Lotus 1-2-3, Quattro Pro, and Excel. Some common features of spreadsheet programs are as follows:

- **Format:** Column and row headings are known as *labels*. Usually a label is a word or symbol. A number in a cell is called a *value*. A label can be centered in the cell or positioned to the left or right. A value can be displayed to show decimal places, dollars, or percent (%). The number of decimal positions (if any) can be altered, and the width of columns can be changed.
- **Formulas:** The major benefit of spreadsheets is that users can manipulate data by using formulas. They make connections between numbers in particular cells.
- **Recalculation:** Recalculation is the most important feature of spreadsheets. If users change one or more numbers in usersr spreadsheet, all related formulas will recalculate automatically. By manipulating the values, users can use spreadsheet formulas to explore usersr options.
- **Windows:** The screen-sized area of a spreadsheet that users can view is called a *window* or a *page*. Only about 20 rows and 8 columns of a spreadsheet are visible on the video display screen at one time. The total size of the spreadsheet can be much larger.
- **Graphic Data Display:** Most spreadsheets allow users to present their data in graphic form. That is, users can display numerical information as pie charts or bar charts.
- **3-D Graphics:** Most spreadsheet programs even permit users to display data in graphs and charts that have a three-dimensional look.
- **Graphics on Worksheet:** A new feature gives users the ability to place graphical elements such as lines, arrows, and boxes directly onto the worksheet. Users can create charts and graphs directly on the worksheet.

- **Consolidation Feature:** Data may be consolidated from several small worksheets into one large worksheet. Thus, users can work with small worksheets, which are more manageable, and summarize the data on a large worksheet.
- **Dynamic File Links:** Some software offers dynamic file links, which allow users to link cells in one worksheet file to cells in other worksheet files. Whenever a change occurs in one file, the linked cells in the other files are automatically updated.

iii. Database Management Packages

A *database* is a large collection of data entered a computer system and stored for future use. The computerized information in the database is organized so that the parts that have something in common can be retrieved easily. Most DBMS packages can perform four primary tasks:

- **Database Development:** Define and organize the content, relationships, and structure of the data needed to build a database.
- **Database Interrogation:** Access the data in a database for information retrieval and report generation. A user can selectively retrieve and display information and produce printed reports and documents.
- **Database Maintenance:** Add, delete, update, correct, and protect the data in a database.
- **Application Development:** Develop prototypes of data entry screens, queries, forms, reports, and labels for a proposed application.

A database management package or *database management system (DBMS)* is a software package used to set up, or structure, a database. It is also used to retrieve information from a database. The top part of the figure is a *menu*. The entire list of member names and addresses is called a *file*. Each line of information about one member is called a *record*. Each column of information within a record is called a *field*.

Popular database management programs include dBASE, Paradox, and FoxPro. Database management packages have different features, depending on their sophistication. A principal feature of database management software for microcomputers are as follows:

- **Retrieve/Display:** A basic feature of all database programs is the capability to locate records in the file quickly. The program can search each record for a match in a particular field to whatever data users specify. The records can then be displayed on the screen for viewing, updating, or editing.
- **Sort:** Database management packages make it easy to change the order of records in a file. Normally, records are entered the database in the order they occur. There are many ways users can quickly rearrange the records in the file, such as by employees' last name or by their social security number.
- **Calculate/Format:** Many database programs contain built-in math formulas. In the office, for example, users can use this feature to find the highest or lowest commissions earned. Users can calculate the average of the commissions earned by the sales force in one part of the country. This information can be organized as a table and printed out in a report format.

- **Customized Data-Entry Forms:** A person new to the database program may find some descriptions for fields confusing. For example, a field name may appear as "CUSTNUM" for "customer number." However, the form on the screen may be customized so that the expression "Enter the customer number" appears for "CUSTOM." Fields may also be rearranged on the screen, and boxes and lines may be added.
- **Professional-Looking Reports:** A custom-report option enables users to design the elements users want in a report. Examples are the descriptions appearing above columns and the fields users wish to include. Users can even add graphic elements, such as a box or line, so that the printed report has a professional appearance.
- **Program Control Languages:** Most people using a database management program can accomplish everything they need to do by making choices from the menus. Many database management programs include a programming control language so that advanced users can create sophisticated applications.

iv. Graphics Packages

A graphics program can display numeric data in a visual format for analytical or presentation purposes. Any other types of presentation graphics displays are possible. *Draw* and *Input* graphics packages support freehand drawing, while desktop publishing programs provide predrawn *clip art* graphics for insertion into documents. Popular business graphics packages are Harvard Graphics, Freelance, Corel Draw, and etc.

There are two types of graphics programs. *Analytical graphics programs* are used to analyze data. *Presentation graphics programs* are used to create attractive finished graphs for presentations or reports.

- **Analytical Graphics:** Analytical graphics make numerical data much easier to grasp than when it is as rows and columns of numbers. Graphics may take the form of bar charts, line graphs, and pie charts. The bar chart gives an instant visual profile of the some figures. The line graph shows a visual profile in another way. The pie chart shows the proportion of some figures as slices of pie. High-low graph shows a range, such as house prices.
Most analytical graphics programs come as part of spreadsheet programs, such as Lotus 1-2-3 and Quattro-Pro. They are helpful in displaying economic trends, sales figures, and the like for easy analysis. Analytical graphics may be viewed on a monitor or printed out.
- **Presentation Graphics:** Users can use presentation graphics to communicate a message or to persuade other people, such as supervisors or clients. Thus, presentation graphics are used by marketing or sales people, for example.
Presentation graphics look more sophisticated than analytical graphics, using color, titles, a three-dimensional look, and other features a graphic artist might use. High-end presentation graphics packages even include animation capabilities. These packages allow users to create and edit animated graphics on usersr microcomputer.

v. Communications Packages

Communications software packages for microcomputers are also viewed as *general-purpose* application packages. These packages can connect a microcomputer equipped with a *modem* to a public and private network. Communications software enables a microcomputer to send and receive data over a telephone or other communications line.

Communications programs are used by all kinds of people inside and outside business. Examples are students doing research papers, travelers making plane reservations, consumers buying products, investors getting stock quotations, and economists getting government statistical data.

Communications programs give microcomputers a powerful feature, which is connectivity.

Connections with microcomputers open a world of services. Popular communications software includes ProComm, Smartcom, and Crosstalk. Some common features of microcomputer communications programs are as follows:

- **Data Banks:** With a communications program, users can access enormous computerized databases - data banks of information. Some of these, such as Dialog, resemble huge electronic encyclopedias.
- **Message Exchanges:** Communications programs enable users to leave and receive messages on *electronic bulletin boards* or to use *electronic-mail* services. Electronic bulletin boards exist for people interested in swapping all kinds of software or information.
Many organizations now have *electronic mailboxes*. For instance, users can transmit a report users have created on usersr word processor to a faraway company executive or to a college instructor.
- **Financial Services:** With communications programs, users can look up airline reservations and stock quotations. Users can order discount merchandise and even do home banking and bill paying