Microsoft windows
1. Computer ha CPU process data as per some instruction's provided through a program.
2. CPU understand machine language (ML)
3. In old that's y computer's confined to professionals.

User ML – CPU older day's
User cmd's – OS – CPU now a day's.
User – window's – CPU.

Active window = user interact with cpu by selecting graphic object's in a rectangular area. Known as active window.

Microsoft window's (Environment)
MS DOS (1980's).
Microsoft + IBM.
OS/2

Multitasking OS

Ctrls allocation of cpu time to no of program's running simultaneously.

Microsoft + 1995 August
Windown's 95

1998 June

Window's 98

11/2/2000

2000

25/10/2001

Window's xp

System command x
Networking
Multitasking
Multimedia
Internet (em901, fax)
Automatic h/w detecting system

1. Install device driver's present device driver's downloaded & Installed.
2. Task scheduling check hard disk error. Deleting unwanted files.
   System info checker, system file checker. Tv programs can be viewed.

3. N/wing internet file security system (Nt). Law.

Internet suspectable to virus & secure run faster remote desktop. Netmeeting (virtual). Audio, video chat. Email : system restore. Music/pictures view.

Starting the window

Window s= os

Windows 95/later automatically loaded. It open's a screen called as window desktop.

Background = image.

Graphic objects = icons on desktop. Taskbar.

Icon's

1. My computer
2. Recycle bin
3. My documents
4. Internter explorer

Running an application

User – computer – application program's (calculator)

Clicking icon on desktop

User – click icon – run application.

Click start – program's – open program you want.

Start – program's – visual studio – micro soft visual C++ 6.0

Notepad – type & edit text menubar in notepad.

File, edit, format, view & help

New open save   save as page setup print exit.

The minimize, maximize, restore & cancel buttons

Window size restored before.

Accessing drives & files

2ndarystorage – hard disk, floppy, CD rom

Files, folder's

Delete

Open my computer – show's drives installed in it.

Subfolder's , folder

Creating, deleting & renaming of files & folder's

Open explore rename, search send to properties, new create shortcut close, delete

My computer – C : \ - Any folder

Comping files

My computer click icon : files, edit view favourites tool's help

Cut   Invert section
Copy   ctrl + x
Paster   ctrl + v
Copy to folder   ctrl + v
Move to folder
Select All

The window explorer

Files, folder's – access explorer

Folder's listed left.

+ - sign – click show sub folder's

- sing – hide sub folder's

The start menu button

On taskbar	set program access & defaults.
My documents	printer's & faxes
My pictures	help & support
My computer	search
Control panel	run.

Searching for files & folder's
Start – search
Files, folder's, pictures, music, video, doc, computer's people.
Part calc.exe
A word or phase
Looking C:\
Back search
Open calc. exe
Ok cancel browser
Creating a new icon on desktop
Arrange Icons by
Refresh
Undo deletes
New properties
Shutting down the window's
Save before
Start – shut down.

Computer Languages

Introduction

Computer = h/w + s/w.

h/w (Electronic component's) – CPU, ALU, hard disk etc.

computer perform user tasks.

Software = programs

Program = instructions

Software types

1. System s/w (os) 2. Application s/w (word).

CPU understands machine language.

Need of programming languages

1. Machine language communicates with CPU.
2. Machine language (binary format).
3. It is burden for the programmer. To remember operational codes. Associated with specific computer & each machine language instruction.
4. Machine independent & programmer don't known anything about internal construction of the machine.

Assembly language (AL)

In AL mnemonics used to represent operation codes & addresses.

Mnemonic LDA (Load the Accumulator).

Source code   Assembler   object code (machine code).

Assembly program   processed.

                     CPU

High level programming languages

Assembly language tries to solve problem by using mnemonics for binary code.

Assembly language easy as compared to machine language. It was also machine dependent.

Basic cobol pasal C, high level languages.

Data declaration & manipulation

Numeric, alpha betic, character string (or) combination of more than one type. High level languages deal with various types of data.

Operator's for data manipulation Puls - +

Minus - -

Multiplication - *

Division - /

Less than - <

Greater than - >

Logical operators – o

Keyword's with specific meanings

HLL has keyword's.

Fortran – Read, write.

Pascal – Begin, End.

C language – for, while.

Syntax rules
Grammatical rules of anatural language.
Semantic rules
Rules of declaration of tokens
Token = constant's & variables.
Machine independence
HLL are machine independent.
HLL program / source code
Translated into
Machine language
Translator types

Compiler	Interpreter
1. 1 start at a time	1. Enter program into machine language.
2. Execute	
3. Easy to write	
4. Less more	

Some High Level Languages
Fortan (Formula translation)
Oldes HLL
John backs developed in IBM 1956 – 57 solve scientific & engg problem's.
Fortran – ii – 1950 – 1960.
Fortan – iv – 1966.
(Standardized by American national institute).
Fortran 77.
Fortran 90.
Fortran 95 – graphics.

Program get read (Input, output) ;
Const pie : = 3.14159 ;
Var area, radius : real ; begin
Written (enter the radius);
Read in (area) ;
Radius : = sqrt (area) ;
Write ("radius =") ;
Wirten (area : 8 : 3) ;
End

Cobol (common business oriented language) business & accountancy purposes. United states department of defence ANSI stdized in 1968.
C language
1972 Dennis Ritchie & ken Thompson ISO/ANsi stdized – C.

#include (stdio.h)

```
#include (math.h)
# define pie 3.14159. void mainc).
Float area, radius ;
Print ("Enter the area o + circle")
Scant ("% f" area) ;
Radius = sqrt (area 1 pie) ;
Print + ("radius = % f \ n", radius) ;
Find area of a circle given its are
Read (*.*) Area.
PIE = 3.14159
Radius = sqrt (area) pie)
Write (*,10) radius
Format ("radius of circle is", F 8.3)
Stop
End
```

Basic
Beginer's all purpose symbolic instruction code.
Dr. kemeny & Thomas at batmouth college, USA in 1963.
Remark

```
Read Area.
Lit Pie 3.14159
Radius = sqrt (Area / Pie)
End.
```
Pascal
Niklaus 1971.
Standardized by Iso & Asp.
Powerful than fortran. For dealing with non-numeric data.

Program
```
Program get rad (inout, out put) ;
Const
Pie : = 3.14159 (*declare variable's as real * )
Var
Area, radius : real ;
Begin
Write in ("Enter the radius") ;
Read in (area) ;
Radius : = sqrt (area) ;
Write ("radius =") ;
Write in (area : 8 : 3) ;
```
Cobol
Common business oriented language. Used for business & accountancy. United states
department of defence.
Cobol

1968
1974   used for business data processing.
1984
Support sql
C language
1972, dennis Ritchie & ken Thomson.
1989 – American national std institution (ANSI) stardardized C language) & adapted by ISo.
ANSI/ISO standard ofc.
C = pascal.
Analyze non-numeric data.

Compiling & linking of C programs.

Introcduction
Fortran, pascal & C
Program
include (stdio.h)
include (math. H)
define pie 3.141
Void mainc)
Float area, radius ;
Print f ("Enter the area of the circle") ;
Scan f ("%f" & area) ;
Radius = sqrt (area/pie) ;
Print f ("radis = % f", radius) ;
Compile
Alt + F9
Depend's one s/w used for the purpose.
Run C Alt + F9.
Turbo C++, Borland C++, Microsoft visual C++ C – C++

Usage of turbo C++
1. Create a file.
2. C (or) CPP saving
3. C++ super set ofc.
4. Dos editor / window's editor
5. Turbo C++ compiler
6. Options
File, edit, search, open f2, save f3, save All changed in print, Dos shell, quit.
File edit search run compile Debug project option window help.
F1 help F2 open F3 copy Alt + F9 compile F9 make F10 menu.
Default name = no name. CPP
Given by compiler.
Compiler window options appear in main window.
Compiling Area. CPP
Total file
Lines compiled 882 882.
Warnings o
Error's o
Available memory 1959 k.
Success press any key.

C, Obj, Back, Exe

Compile – error's – clear error's – recompile.
1. Creating file.
2. Compiling the file.

3. Linking
4. Executing

Usage of the Microsoft visual C++ compiler
Microsoft visual C++ save – C/C++ files
File edit view insert project build tool's window help
Build = main menu   batch build
Compile   clean
Build   start debug
Rebuild
Set active configuration
Configurations
Compilation of the program using visual C++ requires an active project workspace.
Compiler ask to create a default work space (or) not.