Paper 102: Programming & Problem solving through C

Lecture-27:DOS Services

DOS Function Request

- Most of the DOS services are grouped under interrupt number 33 (hex 0x21)
- These services can be invoked using standard library function *intdos()*

  ```
  intdos(union REGS *inregs, union REGS *outregs);
  ```

- intdos () execute DOS interrupt 0x21 to invoke a specified DOS function.
  - The value of inregs.h.ah specifies the DOS function to be invoked.
- If the carry flag is set, it indicates that an error occurred.

Making a Directory

Input AH = 0x39

DX = address of directory name

Returns

If function successful

Carry flag = clear

If function unsuccessful

Carry flag = set

AX = error code

CRDIR.C- Making a Directory

```
#include<stdio.h>
#include<dos.h>
#include<conio.h>
#define CREATDIR 0x39    // Create Directory Service

void main(void)
{
   union REGS regs;
   char *path="z:\\trial";
   clrscr();
   regs.h.ah=CREATDIR;            //service number
   regs.x.dx=path;
   intdos(&regs, &regs);
   if(regs.x.cflag)

        printf("Unsuccessful");
   else
        printf("Successful");
}
```

Removing a Directory

Input AH = 0x3A

DX = address of directory name

Returns

If function successful

Carry flag = clear

If function unsuccessful

Carry flag = set

AX = error code

RVDIR.C-Removing a Directory

```
#include<stdio.h>
#include<conio.h>
#include<dos.h>
#define RMDIR 0x3A                // Remove Directory Service

void main(void)
{
   union REGS regs;
   char *path="z:\\trial";
   clrscr();
   regs.h.ah=RMDIR;               //service number
   regs.x.dx=path;
   intdos(&regs, &regs);
   if (regs.x.cflag)
        printf("Unsuccessful");
   else
        printf("Successful");
}
```

Changing Directory

Input AH = 0x3B

DX = address of directory name

Returns

If function successful

Carry flag = clear

If function unsuccessful

Carry flag = set

AX = error code

CGDIR.C - Changing Directory

```
#include<stdio.h>
#include<conio.h>
#include<dos.h>
#define CHDIR 0x3B                  // Change Directory Service

void main(void)
{
    union REGS regs;
    char *path="z:\\cprogram";
    clrscr();
    regs.h.ah=CHDIR;                //service number
    regs.x.dx=path;
    intdos(&regs, &regs);
    if(regs.x.cflag)
        printf("Unsuccessful");
    else
        printf("Successful");
}
```

Delete a file

Input AH = 0x41

DX = address of file name

Returns

If function successful

Carry flag = clear

If function unsuccessful

Carry flag = set

AX = error code

Wildcard characters are not allowed in file name

RVfile.c – delete a file

```
#include<stdio.h>
#include<conio.h>
#include<dos.h>
#define DELFILE 0x41      // Delete File Service

void main(void)
{
   union REGS regs;
   char *file="z:\\hello.txt";
   int i,bit;
   clrscr();
   regs.h.ah=DELFILE;                      //service number
   regs.x.dx=file;
   intdos(&regs, &regs);
   if (regs.x.cflag)
         printf("Unsuccessful in deleting file");
   else
         printf("Successfully deleted file");
}
```

Get file attributes

Input AH = 0x43

AL=0

DX = address of file name

Returns

If function successful

Carry flag = clear

CX=current file attributes

If function unsuccessful

Carry flag = set

AX = error code

File attributes are bit encoded

Bit settings

Bit numbers								Meaning
7	6	5	4	3	2	1	0	
							1	Read only
						1		hidden
					1			system
				1				Volume label entry
			1					Sub directory entry
		1						Archive bit
	1							unused
1								unused

Set file attributes

Input AH = 0x43

AL=1

CX=file attributes

DX = address of file name

Returns

If function successful

Carry flag = clear

CX=current file attributes

If function unsuccessful

Carry flag = set

AX = error code

File attributes are bit encoded

Rename file

Input AH = 0x56

DX=address of file to be renamed

DI=address of new filename

Returns

If function successful

Carry flag = clear

If function unsuccessful

Carry flag = set

AX = error code

Get current Directory

Input AH = 0x47

DL=drive number(0-cuurent 1=A,2=C etc…)

DI=address of current directory

Returns

If function successful

Carry flag = clear

If function unsuccessful

Carry flag = set

AX = error code