

SOME INTRODUCTION:

What is a COM file?

A COM file is a type of simple executable file. On the Digital Equipment operating systems of the 1970s, .COM was used as a filename extension for text files containing commands to be issued to the operating system (similar to a batch file).

What is a Debug program in Windows?

Debug is a command in DOS, OS/2 and Microsoft Windows (only in 32bit[1]) which runs the program debug.exe (or DEBUG.COM in older versions of DOS).[2] Debug can act as an assembler, disassembler, or hex dump program allowing users to interactively examine memory contents (in assembly language, hexadecimal or ASCII), make changes, and selectively execute COM, EXE and other file types. It also has several subcommands which are used to access specific disk sectors, I/O ports and memory addresses.

However, the debug command is no longer supported in the 64 bit Windows 7

Some commands available in the Debug Program. Basically most of it are Assembly instructions

MOV

for copying of data from one location to another.

Example

MOV X, Y

copies the value in register y into register x.

MOV [address], ax

move the contents of the register ax into the referenced memory block

However memory to memory move are not possible instead use the command in sequence

MOV ax, [address2]

MOV [address1], ax

STANDARD MATH OPERATOR

add, sub, mul, div (on some idiv)

INT

Generates a software interrupt. It takes the interrupt number formatted as a byte value

When written in assembly language, the instruction is written like this:

INT X

R Command

The **R** command displays the contents of all registers and flags in the register storage area, the status of all flags, and the decoded form of the instruction at the current location.

G Command

Runs the program currently in memory. Used without parameters, **g** starts running at the current address in the CS:IP registers.

G [=address] [breakpoints]