Windows Programming

Lecture 01

Recommended Texts

1. **Programming Windows** (fifth edition)
   by Charles Petzold
2. **Win32 Programming**
   by Brent E. Rector & Joseph M. Newcomer
3. **Mastering Windows 2000 Programming**
   with visual C++ by Ben Ezzel
4. **Programming Windows 98/NT Unleashed**
   by Viktor Toth

Assignments and Tests

- Five Assignments
- 2 or 3 quizzes
- 1 GDB
- A mid-term examination
- An end-term examination

Lectures

- Total 30 lectures
- 1st lecture: Introductory Lecture
- 2-7 lectures: About C language
- 8-30 lectures: Core windows programming concepts

Algorithm Development

- Algorithms are the procedures through which we can solve problems.

Example 1

Problem: Take 15 inputs from user, store them in an array and sort them in an ascending order. Finally take print of that sorted array.

Solution: You will develop some procedure to solve this problem.

Example 2

Problem: But now if you have to take 25 inputs instead of 15 from user, and sort them. What you will do now??

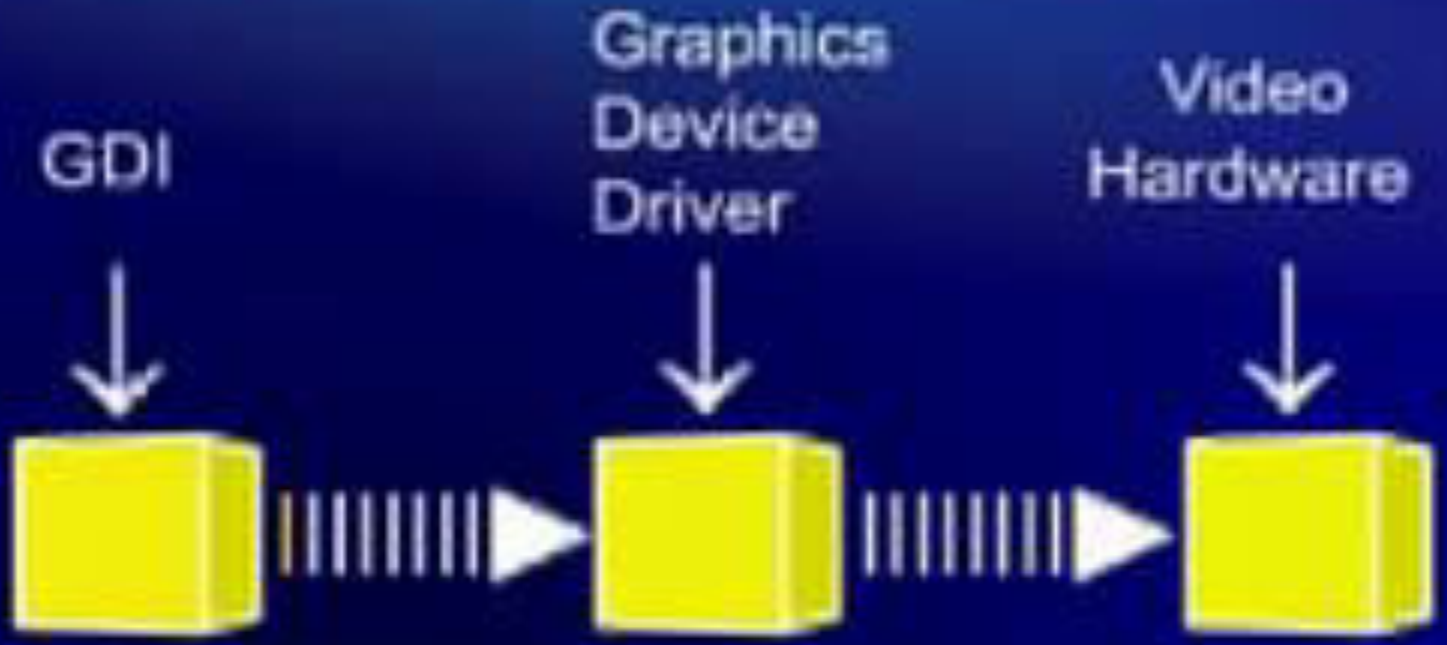
Solution: Either you will develop some new procedure or will modify the previous procedure to solve this problem.

Features of a DOS Programme

- It ”owns” the system
- Direct device access
- Non-portability across machines
- Status polling
- No multitasking
- No multithreading- Single path of execution

Features of Windows Programming

- Resource sharing
- Device independent programming
- Message/Event driven operating system
- GDI (Graphics Device interface)
- Multitasking
- Multithreading


GDI
Graphics
Device
Driver
Video
Hardware

Difference between DOS and Windows programmes

Ultimately, the difference between these two types of programmes is who has control over the system

DOS program

DOS programmes generally expect themselves to be the only programme running on the computer, so they will directly manipulate the hardware, such as writing to the disk or displaying graphics on the screen. They may also be dependent on timing, since the computer won't be doing anything else to slow them down. Many games fall into this category.

Windows programmes

Windows programs, on the other hand, realize that they must share your computer with other Windows programmes. Actually, did you know that Windows 3.*x* itself is a DOS programme? What this means is that Windows has control over the computer's hardware, and in turn it shares parts of the computer's resources with Windows programmes. The obvious advantage to this arrangement is that you can do several things at once; for example, you could watch Win32 programming course lecture, start downloading a file from a BBS, then look at your checking account and use a Calculator to check the balance all at the same time. Another advantage is that you can share data between programs; for example, copying a spreadsheet summary into a word processor document.

API

Application

Programming

Interface