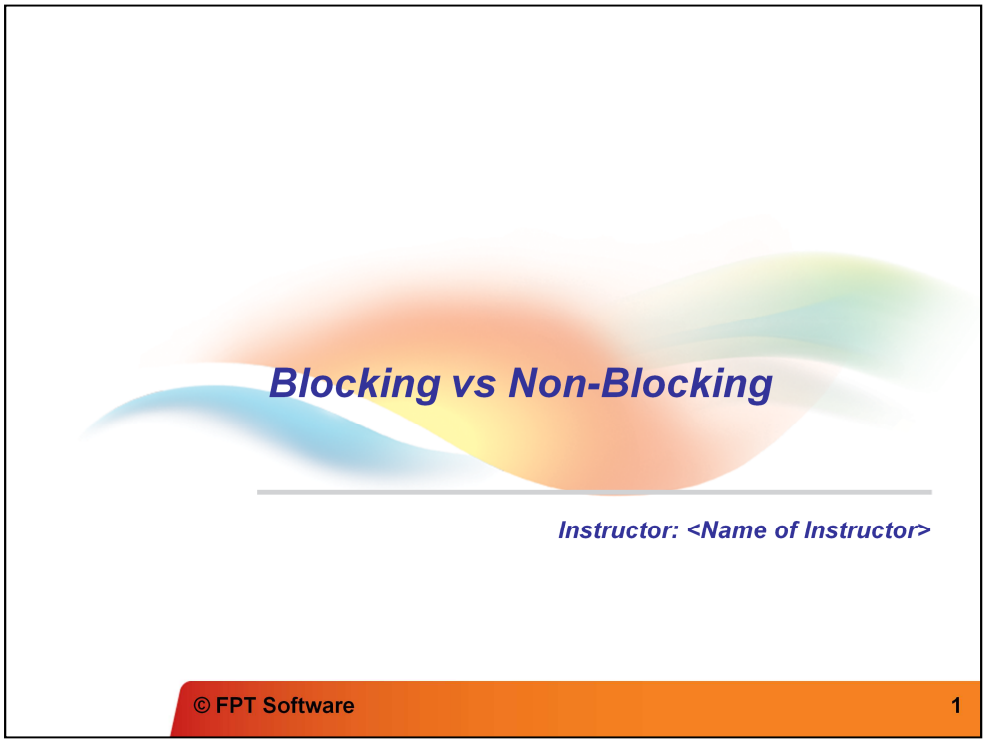


Latest updated by: HanhTT1

Agenda

- What is it?
- Why we need?
- How to implement?
- When we use?

What is it?

- Blocking

  A blocking operation (function call, system call) is basically one that can take a long time. In particular, if you made a function that read data, and waited for data to arrive before returning, it would be a blocking operation, because it could take arbitrarily long before the data arrived, and the CPU would be idle (or another thread would be scheduled to run).

- Non Blocking

  A non-blocking operation, on the other hand, would be one designed to return immediately, with some return value indicating that it does not have data at this time.

Why we need?

- ✓Synchronous & As-synchronous
- ✓ I/O control
- ✓ Socket High performance
- ✓ Real time system / application

Example

- User blocking

```
void blocking1(){
        char ch;
        cin>>ch;
}
```

```
While(1) {
        // do something
}
```

WaitForSingleObject

This model of I/O is called *blocking I/O*

```
while (1) {
        nbytes = read(descr[fd], buff, sizeof(buff)-1);
        if (nbytes < 0) {    //handle the error
            return 0;
        } else if (!nbytes) {//process the buffer
        // DO SOMETHINNG;
}//while
```

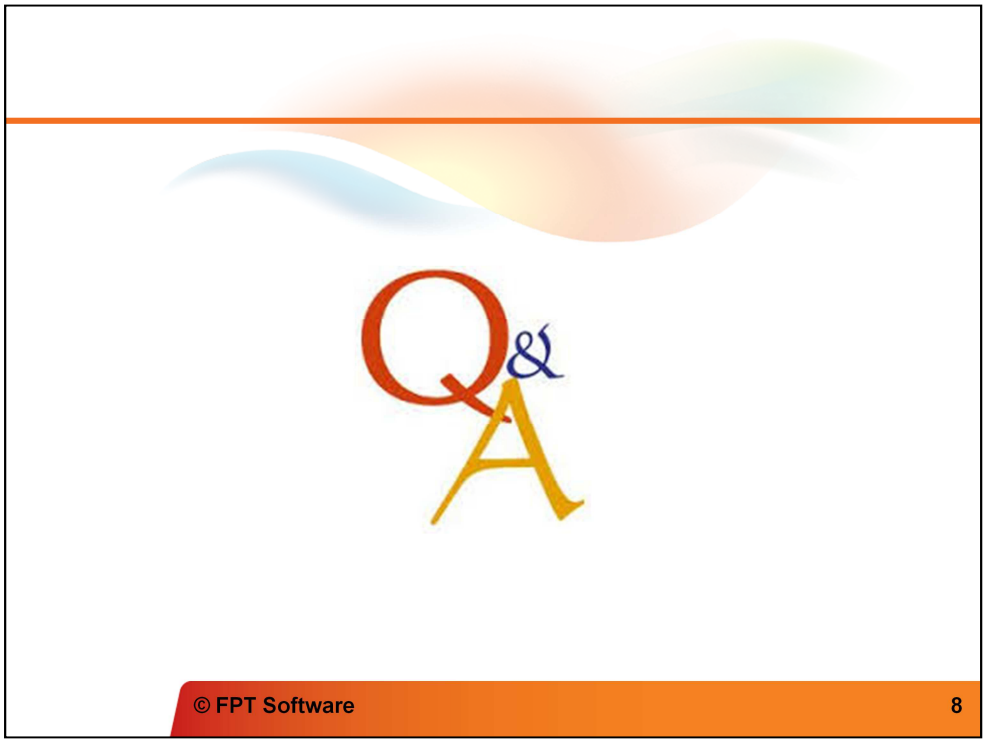
How to implement?

- Solution
  - Callback.
  - Multiple Threads
  - Set option for socket, I/O

Reference & Source code

- C/C++ for Win

http://msdn.microsoft.com/en-us/library/ms738573%28VS.85%29.aspx


Q&A