

How do we get to main()

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MacAdmins Slack Channel

- To join: <https://macadmins.herokuapp.com>
- To use: <https://macadmins.slack.com>

MacAdmin Monthly: <http://www.macadminmonthly.org>

Restor: <https://github.com/google/Restor>

New York:

- Tourism: <https://www.lonelyplanet.com/usa/new-york-city>
- Official Travel Guide: <https://www.nycgo.com>
- Johnny T's NYC Tourist Tips: <https://www.youtube.com/watch?v=8LmPBPWHJu4>

LaunchServices: https://developer.apple.com/documentation/coreservices/launch_services

The 'open' command:

- /usr/bin/open
- man open

Our 1-line app:

```
hello.c
int main(){
    printf("Hello world!\n");
}
```

clang hello.c → a.out

Apple open source:

- <https://opensource.apple.com>
- <https://github.com/apple/darwin-xnu>

syscall.h:

Xcode.app/Contents/Developer/Platforms/MacOSX.platform/Developer/SDKs/MacOSX.sdk/usr/include/sys/syscall.h

objc_msgSend:

- <http://sealiesoftware.com/msg/>
- http://www.sealiesoftware.com/blog/archive/2008/10/30/objc_explain_objc_msgSend_str.et.html

dtruss: man dtruss

Linux executable format: ELF

Windows executable format: COFF/PE

kern_exec: (in XNU source) `bsd/kern/kern_exec.c`

Utilities:

- otool (object file tool)
- nm (resolve names in symbol tables)
- lldb (low-level debugger)

The dynamic loader: `/usr/lib/dyld` (Like 'ld' on Linux)