These options do not control the build process but instead specify values that kernel source can access as a preprocessor macro.

这些选项不控制生成过程，而是指定内核源代码可以作为预处理器宏访问的值。

Vendor kernels 供应商内核

For better or worse, as a kernel hacker, you need to compile your own kernels and learn what modules to include on your own.

无论好坏，作为一个内核黑客，您需要编译自己的内核，并学习自己要包含哪些模块。

Thankfully, the kernel provides multiple tools to facilitate configuration.The simplest tool is a text-based command-line utility:

值得庆幸的是，内核提供了多种工具来方便配置。最简单的工具是基于文本的命令行实用程序：

ncurses-based graphical utility

gtk+-based graphical utility

Although these defaults are somewhat arbitrary (on i386, they are rumored to be Linus’s configuration!)

尽管这些默认值有些随意（在i386上，据说是Linus的配置！）

you can validate and update the configuration:

您可以验证和更新配置：

It also improves processor utilization because the time to build a large source tree includes significant time in I/O wait(time in which the process is idle waiting for an I/O request to complete).

它还提高了处理器利用率，因为构建大型源代码树的时间包括I/O等待中的大量时间（进程空闲等待I/O请求完成的时间）。

By default, make spawns only a single job because Makefiles all too often have incorrect dependency information.

默认情况下，make只生成一个作业，因为makefiles通常具有不正确的依赖关系信息。

utilities 实用程序

This is used during debugging to translate memory addresses to function and variable names.

这在调试期间用于将内存地址转换为函数名和变量名

The Linux kernel has several unique attributes as compared to a normal user-space application.

与普通的用户空间应用程序相比，Linux内核有几个独特的属性。

Although these differences do not necessarily make developing kernel code harder than developing user-space code,

尽管这些差异不一定会使开发内核代码比开发用户空间代码更困难，

These characteristics make the kernel a beast of a different nature.

这些特性使内核具有不同的性质。

The kernel has access to neither the C library nor the standard C headers.

内核既不能访问C库，也不能访问标准的C头文件。

synchronization 同步 concurrency 并发

for that matter 同样的 inefficient 效率低的

comma 逗号

This is intentional;

这是有意的；

Instead, where applicable, the kernel developers make use of various language extensions available in gcc

相反，在适用的情况下，内核开发人员使用GCC中可用的各种语言扩展。

The ISO C99 extensions that the kernel uses are nothing special and, because C99 is an official revision of the C language, are slowly cropping up in a lot of other code.

内核使用的iso c99扩展并不是什么特别的，因为c99是C语言的官方修订版，所以在许多其他代码中慢慢出现。

deviations 背离

The more unfamiliar deviations from standard ANSI C are those provided by GNU C.

与标准ANSI C相比，更不熟悉的偏差是GNU C提供的偏差。

, is frowned upon. 不赞成

Because they are marked static, an exported function is not created.

因为它们被标记为静态，所以不会创建导出的函数。

Memory violations 内存冲突

The kernel is susceptible to race conditions.

内核容易受到竞争条件的影响。

Processes are scheduled and rescheduled at the whim of the kernel’s process scheduler. The kernel must synchronize between these tasks.

进程是在内核的进程调度程序的突发事件下调度和重新调度的。内核必须在这些任务之间进行同步。

simultaneously 同时

Interrupts occur asynchronously with respect to the currently executing code.

对于当前执行的代码，中断是异步发生的。

Therefore, without protection, kernel code can be preempted in favor of different code that then accesses the same resource.

因此，在没有保护的情况下，内核代码可以被抢占，从而有利于不同的代码访问相同的资源。

exist 存在

In Linux, this occurs by means of the fork() system call,

在Linux中，这是通过（依靠）fork（）系统调用发生的，

The parent resumes execution and the child starts execution at the same place:

父进程继续执行，子进程在同一位置开始执行：

A parent process can inquire about the status of a terminated child via the wait4() system call,

父进程可以通过wait4（）系统调用查询已终止子进程的状态，

The Linux kernel internally refers to processes as tasks.

Linux内核内部将进程称为任务。

use the terms interchangeably 互换使用这些术语

cease 停止

It also prevents any one process from monopolizing the processor.

它还可以防止任何一个进程独占处理器。

voluntary 自愿的 suspending 暂停 Consequently 因此