Linux Standard Base

There are a variety of different standards (specifications) that are relevant to working on UNIX-like operating systems such as Linux. For example, a typical **man** page (we will discuss **man** pages and other help and documentation utilities later), such as the one for **open()** in the following example, might have a statement in its **CONFORMING TO** section, such as:

```
          Linux-specific, and one may need to define _GNU_SOURCE (before includi
          to obtain their definitions.

          The O_CLOEXEC flag is not specified in POSIX.1-2001, but is specified i

           O_DIRECT  is  not  specified in POSIX; one has to define _GNU_SOURCE (
           header files) to get its definition.
```

The history of the different standards and specifications is complicated and is much wrapped up in the convoluted UNIX family tree with its two main branches, BSD and System V. For the most part, Linux strives to be POSIX-compliant, a later standard that incorporates earlier ones and stands for Portable Operating System for UNIX. Note, however, Linux distributions are not generally certified as UNIX-compliant, as the rapid development pace is not amenable, the cost is high, and the derived benefits would generally be considered marginal.

It is important, however, that software developed for Linux be portable across different distributions without much pain, and the LSB specification (Linux Standard Base) has stepped into that role. It is administered by The Linux Foundation.

In addition to coding considerations, the LSB also considers matters such as standard utilities and libraries required, where various things are put on the filesystem, etc. If one follows the specification, one should be able to develop on any distribution and use on any other if both are LSB-compliant.