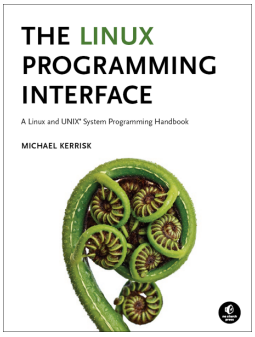
Linux Secure Computing (Seccomp)

Course code: M7D-SECCOMP01



This course provides a thorough introduction to the Linux secure computing (Secomp) facility, a mechanism that can used to sandbox applications by limiting the set of system calls that they may perform.

Audience and prerequisites

The primary audience comprises designers, programmers, and systems administrators who are building, administering, or troubleshooting applications that employ seccomp as a sandboxing facility.

Participants should know how to log in to a Linux or UNIX system and be familiar with common shell commands. No particular programming experience is required.

Course materials

- A course book (written by the trainer) that includes all course slides and exercises
- A source code tarball containing example programs written by the trainer to accompany the presentation

Course duration and format

One day, with around 30-40% of the course time devoted to practical sessions.

Course inquiries and bookings

For inquiries about courses and consulting, you can contact us in the following ways:

- Email: training@man7.org
- Phone: +49 (89) 2155 2990 (German landline)

Prices, dates, and further details

For course prices, upcoming course dates, and further information about the course, please visit the course web page, *http://man7.org/training/cgroups/*.

About the trainer

Michael Kerrisk has a unique set of qualifications and experience that ensure that course participants receive training of a very high standard:

- He has been programming on UNIX systems since 1987 and began teaching UNIX system programming courses in 1989.
- He is the author of *The Linux Programming Interface*, a 1550-page book widely acclaimed as the definitive work on Linux system programming.
- He is actively involved in Linux development, working with kernel developers on testing, review, and design of new Linux kernel–user-space APIs.
- Since 2004, he has been the maintainer of the Linux *man-pages* project, which provides the manual pages documenting the Linux kernel–user-space and GNU C library APIs.

Linux Secure Computing (Seccomp): course contents in detail

Topics marked with an asterisk (*) may be covered, if time permits.

1. **Course Introduction**
2. **Seccomp**
   - Introduction and history
   - Seccomp filtering and BPF
   - The BPF virtual machine and BPF instructions
   - BPF filter return values
   - BPF programs
   - Checking the architecture
   - Caveats
3. **Seccomp: Further Details**
   - Discovering the system calls made by a program
   - Productivity aids (*libseccomp* and other tools)
   - Recent seccomp features
   - User-space notification
   - Audit logging of filter actions (*)