



Linux C Programming Training

Overview:

This course teaches Linux users how to do C Programming, specifically on the Linux operating system. Linux C programming allows the highest performing applications and is necessary for low level programming, especially when dealing with devices and low level internals. We look and implement best practices and build on your previous experience. The solutions to the exercises are provided for those with less background.

Knowledge prerequisites:

Experience with a Linux system as a user.
Previous programming experience in other environments is recommended.

Method:

Course/Workshop, classical educations with practical exercises.

Course Flow:

Day 1:

- The build process with gcc, make, gdb
- Refresh of C pointers and function calls
- File operations
- Defensive coding and libraries
- Processes

Day 2:

- Threads, synchronisation and critical sections
- Processes vs Threads
- Interprocess Communication
- Shared Memory and Semaphores

Day 3:

- Mapped Memory
- Pipes
- Sockets

Day 4:

- Devices
- /proc and /sys interaction
- System calls
- mlock, nanosleep, readlink, sendfile, setitimer and sysinfo

Day 5:

- Inline Assembly
- Security
- Vector Reads and Writes
- Other File operations and reading directory contents

Courseware:

Course material is provided.

Course Dates & Location:

Please contact us for available dates and locations.

Price:

2.950,- € + VAT per attendee (incl. courseware and lunches during the 5 days).