



## Porting, tailoring and programming Google's Android OS

The Android operating system, developed by Google and based on the Linux kernel, is used more and more frequently not only on smartphones but also for dedicated embedded devices, notably in the "Machine to Machine" market.

**ac6-training** proposes trainings on the porting of the operating system on your board and its tailoring to your specific needs, as well as creating embedded applications running on the Android system.

Installing Android on a new platform is a complex process. You need to port first the Linux kernel then install the Android platform. Even if you find an existing Android Open Source Platform, the process to create an usable image is quite complex. This course will explain all the required steps, from building the kernel and the platform to solving a code to matching the boot process and creating test applications. **Android Installation**  
However, due to the limitations of the hardware interfaces for embedded resource constrained systems, applications in applications, this course will explain how they are structured and how Android allows to combine portability and complex process realizations, a deep understanding of the internals of the Android frameworks and the layers are Abstraction Layer. This course explains how the frameworks are structured and can be adapted to a platform on which systems need to be already exist and ergonomic interfaces. Building these with traditional GUI toolkits may be cumbersome and difficult. Android may simplify these tasks, allowing industrial application developers to benefit from the tools developed for consumer electronics devices. **Android on Industrial System Control**  
This course covers the various techniques needed to write Linux (2, 6 and x) drivers and management of CPU, drivers, hot-plug, configuration of devices as well as the specific problems due to multi-core and advanced processors. **Linux Drivers**  
This course covers the management features of the Linux kernel. This course delves into the concepts of Emux, drivers interaction with power drivers. **3 days Inquiry**  
This course details the management architecture to write USB host (client) drivers as well as gadget drivers. **3 days Inquiry**