

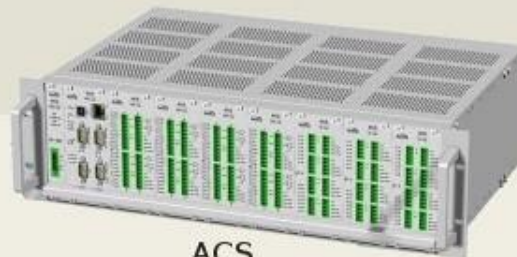
## Linux Software Development Kit



LT200



RIOM



ACS



The Linux Software Development Kit offers a range of features to easily develop applications on our hardware platforms LT200, ACS and RIOM.

The Development Kit features a compact implementation of the GNU/Linux operating system based on the 2.6 Linux kernel release. It has been optimised for use on Leroy Automation hardware platforms and is pre-loaded and configured into the embedded Flash. It offers an embedded version of Linux with a proven background, combined with a high reliability journaling Flash File system.



## ■ FEATURES

- ▶ 2.6.12 based Linux kernel release
- ▶ Complete GNU tool chain:
  - ARM C/C++ cross-compiler (GCC)
  - Remote Debugger (GDB)
  - GNU C/C++ standard libraries
- ▶ Journaling Flash File System (JFFS2) offering high reliability and recovery from power interruptions and giving 6 MB onboard Flash disk space approx.
- ▶ Linux Device drivers for peripherals : I/O boards, serial links, memories ...
- ▶ System utilities
- ▶ DHCP client
- ▶ Web server supporting both static and, via CGI, dynamic HTML pages
- ▶ FTP server
- ▶ SNMP agent (V1, V2C, V3)
- ▶ TELNET server
- ▶ Modbus TCP protocol (master and slave)
- ▶ Asynchronous Modbus protocol (master and slave)

## ■ REQUIREMENTS

- ▶ Our SDK can be installed on any Linux distribution integrating the following standard services :
  - DHCP server
  - Network File System Server (NFS)
  - TFTP server
 (Leroy Automation develops on Linux OpenSUSE )
- ▶ Our GNU tool chain can be fully integrated with ECLIPSE platform and the CDT plugin to become a complete Integrated Development Environment (IDE) free of charge.

## ■ SUPPLIED HARDWARE

- ▶ All our hardware platforms are based on the same core :
  - Marvell PXA255 @ 400 MHz
  - 32 MB SDRAM
  - 16 MB Flash
  - 10/100 BaseT Ethernet Controller (LAN91C111)

## ■ SUPPLIED SOFTWARE ON CD-ROM

- ▶ Simple SDK full installation utility
- ▶ A complete manual to guide you through the configuration of your development platform (how to configure network services and integrate the tool chain in ECLIPSE)
- ▶ Hardware Technical Manual
- ▶ Documentation of all the device drivers, libraries and system utilities
- ▶ « Quickstart » guides and application examples
- ▶ All features source code (bootloader, kernel, device drivers, system utilities, filesystems) with the availability to regenerate all of them.

## ■ DEVELOPMENT MODEL



- ▶ Use ECLIPSE to edit, compile and remote debug your application on the hardware platform through the Ethernet connexion
- ▶ At the end of development, download your final application on the hardware platform using FTP
- ▶ Customize the start up scripts to automatically launch your application at system startup.

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