

# <sup>/</sup> Linux Design Suite

# Software

## **Features**

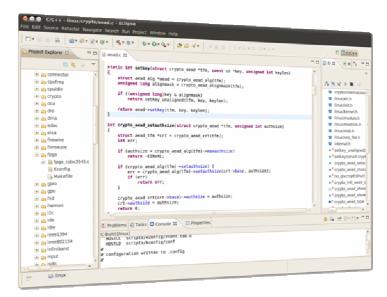
- U-Boot Bootloader configured for ACTIS products
- Linux 2.6+ Kernel
- Debian 6.0+ target root file system
- BusyBox target embedded root file system
- Cross Development tool chain
- Board configuration tools
- Source code available
- Complete IDE based on Eclipse CDT











## **ACTIS Development Environment**

The ACTIS Development Environment provides all the tools necessary to hack the Linux kernel and the U-Boot boot loader. It is based on the following software :

#### Denx's ELDK

The ELDK is the Denx's Embedded Linux Development Kit. It provides a complete cross development tool chain for the PowerPC platforms.

http://www.denx.de/wiki/DULG/ELDK

# Git

The Distributed Version Control System (DVCS) used by the Linux kernel and the U-Boot development teams. The main features of Git are:

- Distributed
- Fast
- Lightweight

http://git-scm.com

#### **Eclipse CDT**

An Integrated Development Environment (IDE) for C/C++ projects. It is based on the well known Eclipse IDE.

Its main feature are source navigation, various source knowledge tools, such as

type hierarchy, call graph, include browser, macro definition browser, code editor with syntax highlighting, folding and hyperlink navigation.

ACTIS provides a pre-configured Eclipse CDT which uses the Denx's ELDK and the Git DVCS (via the EGit plugin).

http://www.eclipse.org http://www.eclipse.org/cdt http://www.eclipse.org/egit

#### **U-Boot**

U-Boot is an open source boot loader which initializes the hardware devices of a system, executes some basic commands and is able to start (boot) an Operating System. It is developed by DENX Computer Systems GmbH.

http://www.denx.de/wiki/U-Boot/WebHome

#### Linux

Linux is a clone of the operating system Unix. It has all the features you would expect in a modern fully-fledged Unix, including true multitasking, virtual memory, shared libraries, demand loading, shared copy-on-write executables, proper memory management, and multistack networking including IPv4 and IPv6.

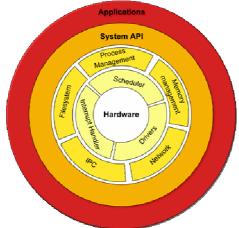
http://www.kernel.org



## Debian

Debian is a free operating system (OS). Debian uses the Linux kernel (the core of an operating system), but most of the basic

OS tools come from the GNU project; hence the name GNU/Linux.



Debian GNU/Linux provides more than a pure OS: it comes with over 25000 packages, precompiled software bundled up in a nice format for easy installation.

http://www.debian.org

# **ACTIS Board Configuration Tools**

A set of tools are provided in order to ease the configuration of the ACTIS boards

- Firmware update
- Configuration of the boot options
- Linux boot
- Diagnostics

# Open Source Software

All the software provided in this LSP is Open Source, which means that the source code is available. This guarantees the following important items:

- Code review for validation The software is no more a black box for our customers.
  - Customization Our customers are able to tune the software accordingly to their needs.
- Sustainability

Since the source code is available, the software can be maintained, optimized and distributed regardless of whatever happens.

	CSBX-3545	CSBX-6315	VSBC-6848	XCOM-9347	XCOM-9460
Debian	5.0	6.0	6.0	5.0	5.0
Linux	v2.6.31	v2.6.36	v2.6.38	v2.6.30	v2.6.31
U-Boot	v1.3.3	v2010.09	v2010.12	v2009.06	v2009.08
Eclipse	v3.5.2	v3.5.2	v3.5.2	v3.5.2	v3.5.2

# Currently available software versions for the following ACTIS boards:

For ordering information, please visit our web site at www.actis-computer.com