

BlueCat Linux Release Notes

For Intel IQ80310 Evaluation Boards

BlueCat Linux 3.1

DOC-0429-00

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Contents

CHAPTER 1	INTRODUCTION	1
	Distribution Packages	1
	Documentation	2
	Documentation Web Site	2
	Supported Cross Development Hosts	3
	New Features in BlueCat Linux 3.1	3
	New Binary Architecture CD-ROM	3
	New Target Support Packages	3
	Technical Support	3
	World Wide Web	4
	LinuxWorks U.S. Headquarters	4
	LinuxWorks Europe	4
CHAPTER 2	KNOWN PROBLEMS AND LIMITATIONS	5
	IQ80310 Target Board Problems and Limitations	5
CHAPTER 3	LATE BREAKING NOTES	7
	Last-Minute Installation Notes	7

Introduction

BlueCat Linux is a member of the LynuxWorks, Inc. family of embedded development and deployment solutions.

Combined with LynxOS, the leading Linux compatible real-time embedded operating system, BlueCat Linux offers a complete solution to embedded operating system requirements. For a complete overview of the LynuxWorks product family, please visit www.lynuxworks.com.

Distribution Packages

BlueCat Linux distribution packages are available for multiple architecture platforms and target boards. The release of new or updated architecture support and Target Support Packages (TSPs) may or may not coincide with new releases of the BlueCat Linux core product. Specific architectures and TSPs may be supported by specific versions of BlueCat Linux.

In order to support LynuxWorks's ability to provide TSPs more frequently, the structure of the BlueCat Linux distribution CD-ROMs has been changed as follows:

- **Binary Architecture CD-ROM:** This CD-ROM contains the binary files for all supported boards for a specific microprocessor family (e.g., XScale). Also contains the *BlueCat Linux User's Guide* as a PDF file.
- **Target Support Package CD-ROM:** This CD-ROM contains both the BlueCat Linux binary and source files to support a specific target board (e.g., IQ80310). Also contains the *BlueCat Linux Target Support Guide* for the relevant target board.

- Source Architecture CD-ROM: This CD-ROM contains the source files required to rebuild the binaries.
- User Documentation CD-ROM: This CD-ROM contains the *BlueCat Linux User's Guide*, the *BlueCat Linux Target Support Guide for Intel IQ80310 Evaluation Boards*, and the *BlueCat Linux Release Notes for the Intel IQ80310 Evaluation Boards*.

Documentation

The following BlueCat Linux documents are provided in PDF format on the BlueCat Linux Installation CD-ROMs, which are included in the BlueCat Linux package:

- *BlueCat Linux User's Guide*
- *BlueCat Linux Target Support Guide* for a specific target board
- *BlueCat Linux Release Notes* (in the User Documentation CD-ROM)

The documents are also available on the User Documentation CD-ROM.

Documentation Web Site

All BlueCat Linux documentation, including the *BlueCat Linux Release Notes* are available on the BlueCat Linux Web site:

`http://www.linuxworks.com/bluecat`

Release notes are continually updated with information about new developments and defect fixes.

Supported Cross Development Hosts

The BlueCat Linux development environment requires an installed, functional cross development host with an Intel 386 or higher CPU. This host needs to be running one of the following development environments:

- TurboLinux Workstation, version 6.0
- Red Hat Linux, version 6.1 or higher

New Features in BlueCat Linux 3.1

New Binary Architecture CD-ROM

- BlueCat Linux 3.1 now includes support for the Intel XScale architecture.

The Binary Architecture CD-ROM for the XScale processor family has a different tool chain from the other BlueCat Linux 3.1 processor families. The BlueCat Linux XScale binaries have a toolchain optimized for the XScale processor core.

New Target Support Packages

- Intel IQ80310 Evaluation Board

Technical Support

LynuxWorks Technical Support is available to answer questions about BlueCat Linux. Please feel free to contact us Monday—Friday (holidays excluded) between 8:00 AM and 5:00 PM Pacific Time (LynuxWorks U.S. Headquarters) or between 9:00 AM and 6:00 PM Central European Time (LynuxWorks Europe).

In addition, browse our World Wide Web home page for additional information about LynuxWorks products, Frequently Asked Questions (FAQs), and LynuxWorks news groups.

World Wide Web

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This section provides an overview of problems and limitations of BlueCat Linux 3.1 for the IQ80310 platform in this release.

IQ80310 Target Board Problems and Limitations

- Kernel operates with Data Cache turned off.
- For networking, the Ethernet MAC address should be passed to the kernel as a command line parameter. For example:

```
eepro100_ether_addr=02:02:02:02:02:02
```

If the MAC address is not set from the command line, it defaults to 00:01:02:03:00:04.

- Default cross-compilation EGCs tools is replaced with Intel XScale tools in the BlueCat Linux distribution. This replacement does not affect the basic tool chain functionality. All target packages are prebuilt using this new toolchain. The tools naming convention has changed to `xscale-lynx-linux-toolname`. The old naming convention is also supported.
- Thumb support is not tested with the new Intel toolchain.
- When booting from flash, the KDI (compressed kernel and optional compressed root filesystem image) is copied to RAM and then decompressed, rather than decompressed from flash memory directly.
- Current support for external PCI cards on the secondary PCI bus has some difficulties with interrupt handling.

- The demo system called `i80200_test` in the `$BLUECAT_PREFIX/demo` directory is not supported.

Late Breaking Notes

Last-Minute Installation Notes

None

