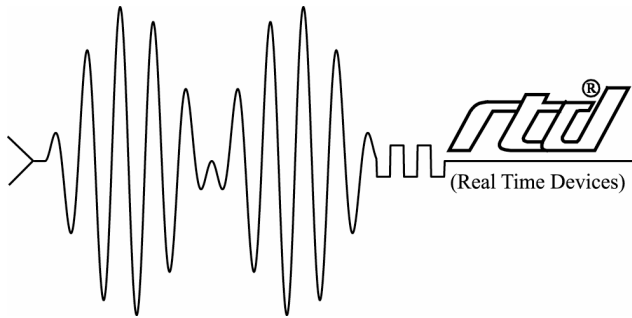


APPLICATION NOTE

Linux Distributions Used to Test Drivers



RTD Embedded Technologies, Inc.
"Accessing the Analog World"®

SWM-64000020
rev B

APPLICATION NOTE

Linux Distributions Used to Test Drivers



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Revision History

09/14/2004	Revision A issued
07/15/2005	Revision B issued Added Fedora Core 4 notes to “2.6 Kernels” section

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Introduction

As part of RTD's zero defects quality policy, all Linux drivers are tested prior to release. Many Linux distributions exist, therefore it is not feasible to test our drivers on all Linux distributions. Instead, we selected some representative distributions (based upon popularity, availability, and/or generality of the releases) on which to test our Linux software.

2.2 Kernels

Any RTD Linux driver version released in 2004 or after no longer supports the 2.2 kernel.

2.4 Kernels

Any RTD Linux driver version released in 2004 or after is tested on the 2.4 kernel. The following distributions have been chosen as representative testing platforms:

- * Red Hat 7.3 with unmodified 2.4.18-3 stock kernel
- * Red Hat 8.0 with unmodified 2.4.18-14 stock kernel
- * Red Hat 9.0 with unmodified 2.4.20-8 stock kernel
- * Red Hat 9.0 with 2.4.25 kernel built from kernel.org kernel source code

2.6 Kernels

Beginning with the SPM6400 driver, any new RTD Linux driver released on or after September 2004 is tested on the 2.6 kernel. SUSE 9.1 Professional was chosen as the representative testing platform.

Fedora Core 2 also provides a 2.6 kernel but it is known to have problems booting on RTD CMi cpuModules using the VIA Eden Samuel2 processor core. At least the Fedora Core 2 2.6.5-1.358 and 2.6.8-1.521 kernels exhibit this behavior. Fedora Core 2 will not boot on non-RTD CPUs based on the same processor core.

Fedora Core 3 with a 2.6.9-1.667 kernel boots successfully on RTD CMi cpuModules using the VIA Eden Samuel2 processor core.

Fedora Core 4 is known to have problems on RTD CME, CMi, and CML cpuModules using the VIA Eden processor core. These problems may take the form of 1) rebooting during a boot attempt, or 2) rebooting after the system has been up for a while. At least the Fedora Core 4 kernels up to and including the 2.6.12-1.1390 kernel exhibit this behavior.

Real-time Kernels

At this point in time, RTD Linux drivers do not offer any direct support for the various real-time Linux kernels. However, since full source code is provided by RTD, the customer is free to adapt any existing driver to a real-time kernel.