RocketPort® and RocketModem Driver Installation for Linux

Overview

You can use this document to install and configure the RocketPort/RocketModem Linux device driver.

Note: *The Linux operating system is distributed from several sources. While all distributions share general file structure and functionality, there are differences that can impede the installation of device drivers. The instructions in this document outline a generic installation procedure. You may need to adjust for differences in a particular distribution using the Linux system documentation as a reference.*

This document assumes that you have already installed the Linux operating system (kernel version 2.0 or higher) and that you have a basic understanding of Linux OS operation.

Installation Procedure

Use this procedure to install the driver.

1. If you have not done so already, install the hardware using the *Hardware Installation* documentation.

2. If necessary, download the current device driver, copy and extract the files to the **/usr/src** directory on the Linux system. For example:

   Change to the **/usr/src** directory and use the **untar** command.

   > **cd /usr/src**
   >
   > **tar xzvf** *filename***.tar.gz**

   A subdirectory of **/usr/src** now exists called **comtrol**. This contains the RocketPort/RocketModem driver and associated files.

3. Recompile the RocketPort/RocketModem driver.

   Note: *This is not always necessary, depending on the version of your kernel, but it is safe to do.*
   > **make clean**
   >
   > **make**

4. Install the RocketPort/RocketModem driver as **root**:

   > **make install**

5. If you are using more than one ISA RocketPort/RocketModem board, or have installed an ISA RocketPort or RocketModem board at a non-standard address, you will need to set up the file **/etc/rocketport.conf**. The **/usr/src/comtrol** directory contains a sample **rocketport.conf** file. Copy it to the **/etc** directory and edit it according to the comments contained in the file.

   Note: *This step is NOT necessary, if you are using only PCI RocketPort or RocketModem boards.*

6. Optionally, edit your **/etc/rc.d/rc.S** file (or other appropriate boot-up script) so that the **rc.rocket** script runs automatically each time your system boots. This is done for you automatically if you are using a system with System V **init** files, such as is used in the RedHat or Debian releases.

7. Either reboot to load the driver into the currently running system, or manually load the driver running the **rc.rocket** script with the **start** argument. For example:

   > **/rc.rocket start**

8. Configure your applications and/or your **getty** scripts as appropriate for your application.

   Note: *The RocketModem looks to Linux like a RocketPort card with modems attached; you can refer to the RocketModem AT command set on the Comtrol CD or ftp/web sites.*

9. **For PCI-ONLY installation:**

   Edit the **rocketport.conf** script to remove or comment out the **boardx=0xxx"** statement.

10. Optionally, edit your **/etc/rc.d/rc.S**† file so that the **rc.rocket** script runs automatically each time the system boots. For example:

   /bin/sh /etc/rc.d/rc.rocket

   † *This file may have a different file name, depending upon the Linux distribution type.*

   Note: *The **rc.rocket** script requires that **setrocket** be installed in the **/bin** directory. The **setrocket** program creates the **ttyRx** devices (where **x** is a number designating the port). The **setrocket** program is structured much like the familiar **setserial** program, and performs a similar function.*

11. Reboot the system. The following illustrates a sample load line for the driver after installing a RocketModemII, 6-port board:

   RocketPort device driver module, version *x.xx*, *date*
   RocketPort controller #0 found at 00:48, 1 AIOP(s) *PCI RocketModemII 6-port*
   Creating devices: ttyR0 ttyR1 ttyR2 ttyR3 ttyR4 ttyR5
   RocketPort driver loaded using device #46 initializing RocketModemII's: ttyR0 ttyR1 ttyR2 ttyR3 ttyR4 ttyR5
   Loading firmware...
   Loading done

12. Optionally, configure **inittab** to run the **gettys**.

13. If applicable, connect the interface box to the controller board (if applicable).

14. If *RocketPort*, connect your peripherals to the interface box or ports.

   If *RocketModem*, connected your cables between the RocketModem RJ11 connectors and the wall phone jack RJ11 connectors.

   Note: *If you need pin out information to build cables, see the Hardware Installation documentation.*

15. If necessary, configure your devices.

Accessing Higher Baud Rates

For backwards compatibility with other serial drivers, the device driver supports the remapping of 38,400 baud to either 57,600 baud or 115,200 baud.

In addition, **setrocket** can be used to remap 38,400 baud to 230,400 baud. This can improve performance when using modern, high-speed (28,800 bps with compression) modems. However, not all modems support 230,400 baud, check your modem manual for more details.

Execute **setrocket** without any parameters to get a usage message.

If your system has a recent shared **libc** installed and your communications programs have been recompiled to take advantage of 57,600 and 115,200 baud rates, then you may not need to use the remapping option. 230,400 baud still requires the remapping option until the appropriate changes can be propagated into the kernel, **libc**, and communications programs so as to support this speed directly.

Configuring Your Devices

For current information on how configure your devices for Linux, use the www.linuxdoc.org link to locate *How to* documents for:

- Modems
- Printers
- Serial devices

Troubleshooting

Review the troubleshooting discussion in the Hardware Installation documentation. If necessary, create a bootable diagnostic diskette and run the diagnostics.

You can also use **Cu** to test the port:

1. Change the mode of the port to 666. For example:

   chmod 666 /dev/ttyR0

2. Change the group of the port to **uucp**. For example:

chgrp uucp /dev/ttyR0

3. In the **/etc/uucp** directory, edit the **port** file by adding the following lines.

   Note: *Specify your port number in place of ttyR#.)*

   port ttyR#
   type direct
   device /dev/ttyR#
   speed 38400

4. At the command prompt, type one of the following:

   • **cu -l ttyR#**

   • **cu -p ttyR#**

   You should then get a *connected* message on your screen. The port is open and you can now communicate to the device attached to the port.

To exit cu, use the following procedure:

1. At the start of a new line, type:

   ~./

2. The system should now close the **cu** session and you should return to the Linux prompt.

Technical Support

Comtrol has a staff of support technicians available to help you. Before you call, please have the following information available:

Item	Your System Information
Model number	
Serial number	
Interface type	
I/O address and IRQ	
Operating system type and release	
Device driver version	
PC make, model, and speed	
List other devices in the PC and their addresses	

Comtrol	Headquarters	Europe
Phone	(612) 494-4100	+44 (0)1869 323220
FAX	(612) 494-4199	+44 (0)1869 323211
Email	support@comtrol.com	support@comtrol.co.uk
Web support	Searchable Solution Database and FAQs	
Web site	www.comtrol.com	www.comtrol.co.uk
FTP site	ftp.comtrol.com	

Reporting Bugs

Please send Linux-related bug reports to support@comtrol.com.

Comtrol Corporation technical support can resolve issues related to the RocketPort hardware and 6529 Linux driver software, but given the nature of Linux and the many variant distributions available, we cannot be held responsible for the behavior of the operating system.

Trademark Notices

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