NightBench for Linux

Version 2.3.2 Release Notes

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concurrent

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1.0. Introduction

NightBench™ is a member of two parent software suites: MAXAda™ for Linux and the PowerWorks™ Linux Development Environment (PLDE). NightBench is a graphical user interface for developing software with the Concurrent MAXAda and C/C++ compiler toolsets. It supports developing Ada programs for Pentium-based computers running selected versions of Linux as well as Ada and C/C++ programs for PowerPC-based Concurrent computers running PowerMAX OS.

NightBench provides a common work environment for the editor, compilers, and development tools. NightBench organizes all of the information required for the development of applications, ensures consistent, repeatable builds, and provides an efficient interface for editing, browsing, building, and debugging.

2.0. Documentation

Table 2-1 lists the NightBench 2.3.2 documentation available from Concurrent.

Table 2-1. NightBench Version 2.3.2 Documentation

Manual Name	Pub. Number
NightBench User's Guide	0890514-070
NightBench for Linux Version 2.3.2 Release Notes	0898514-2.3.2

Copies of the Concurrent documentation can be ordered by contacting the Concurrent Software Support Center. The toll-free number for calls within the continental United States is 1-800-245-6453. For calls outside the continental United States, the number is 1-954-283-1822 or 1-305-931-2408.

Additionally, the manuals listed above are available:

- online using the utility, **`nhelp`**
- in PDF format in the **`documentation`** directory of the Installation CD
- on the Concurrent Computer Corporation web site at www.ccur.com

3.0. Prerequisites

Prerequisites for NightBench Version 2.3.2 for both the host system and target system are as follows:

3.1. Host System

3.1.1. Software

- Any of the following operating systems:
  - RedHawk Linux Version 1.4 or later
  - Red Hat Linux Versions 8.0, Enterprise 3, or Enterprise 4
  - Concurrent Real-Time Extensions Powered by SUSE Linux -- Version 10.1
  - SUSE Linux Version 10.1
  - SUSE Linux Enterprise Desktop 10.1, SUSE Linux Enterprise Server 10.1
- Required capabilities

NOTE

The following capabilities are normally installed as part of the standard installation of the parent software suite, either MAX-Ada for Linux or the PowerWorks Linux Development Environment. During installation, the user will be notified if required capabilities do not exist on the Linux system.:

Capabilities	RPMs providing these capabilities
ccur-HyperHelp **ccur-HyperHelp-scripts** **ccur-ktalk** **ccur-nedit** **ccur-nhelp** **ccur-nterm**	**ccur-x11progs-6.4.2-19** **ccur-HyperHelp-scripts-6.4.2-004**

If using NightBench for Ada program development, one of the following capabilities are also required:

Capabilities	RPMs providing these capabilities
ccur-MAXAda	**ccur-MAXAda-i86_3.4** **ccur-MAXAda-i86_3.5** **ccur-MAXAda-amd64_i86_3.5** **ccur-MAXAda-i86_3.5.1** **ccur-MAXAda-amd64_3.5.1**
plde-MAXAda	**plde-MAXAda-3.3.3**

If using NightBench for C/C++ program development with Concurrent's cross-compiler, the following capabilities are also required:

Capabilities	RPMs providing these capabilities

`plde-c++`	`plde-c++-5.3`
	`plde-c++-5.4`
	`plde-c++-6.1`
	`plde-c++-7.1`

3.1.2. Hardware

- Any Pentium (Pentium III or higher), EMT64 or AMD64 system supported by the host operating system

3.2. Target System

NightBench supports self-hosted targets as well as cross compilation for compatible systems.

When cross-compiling for target systems, the host system operating system type and version must match the underlying target system operating type and version. For example, a system running Red Hat Enterprise Linux 3.0 is an appropriate host for a RedHawk Linux 2.3 target system.

When cross-compiling, any required libraries specific to the target system must be present on (or accessible from) the host system.

3.2.1. RedHawk Linux Targets

3.2.1.1. Software

- RedHawk Linux 1.4 or later

3.2.1.2. Hardware

- Any Concurrent iHawk Series system

3.2.2. SUSE Linux Targets

3.2.2.1. Software

- Concurrent Real-Time Extensions Powered by SUSE Linux -- Version 10.1

3.2.2.2. Hardware

- Any Pentium (Pentium III or higher), EMT64 or AMD64 system supported by the target operating system

3.2.3. PowerMAX OS Targets

3.2.3.1. Software

- PowerMAX OS 4.3 or later

3.2.3.2. Hardware

- Computer Systems:

  Power Hawk™ 620 and 640

  Power Hawk 710, 720 and 740

  Power Hawk 910 and 940

  PowerStack™ II and III

  Night Hawk® Series 6000

  TurboHawk™

  PowerMAXION™

- Board-Level Products:

  Motorola® MVME2604

  Motorola MVME4604

4.0. System Installation

Installation of NightBench is normally done as part of the general installation of the parent software suite, either MAXAda for Linux or the PowerWorks Linux Development Environment. A single command installs (or uninstalls) all software components of the parent suite, as described in the *MAXAda for Linux Release Notes* (0898537) *or* the *PowerWorks Linux Development Environment Release Notes* (0898000).

The following section describes how to install (or uninstall) NightBench separately from the parent suite for those rare cases when this is necessary.

4.1. Separate Host Installation

In rare cases, it may be necessary to install (or uninstall) NightBench independent of the installation of the parent software suite. This may be done using the standard Linux product installation mechanism, **`rpm`** (see **`rpm(8)`**).

The names of the RPMs associated with NightBench 2.3.2 are:

`ccur-nbench`
`ccur-nbench-ada`
`ccur-nbench-c`

and the files associated with these RPMs, respectively, are:

`ccur-nbench-2.3.2-3.i386.rpm`
`ccur-nbench-ada-2.3.2-3.i386.rpm`
`ccur-nbench-c-2.3.2-3.i386.rpm`

which can be found in the **`RPM`** directory of the MAXAda for Linux Installation CD.

NOTE

The user must be root in order to use the **`rpm`** product installation mechanism on the Linux system.

The **`ccur-nbench-c`** RPM should only be installed if the PowerWorks Linux Development Environment product is installed. **`ccur-nbench-c`** only operates with the Concurrent C/C++ cross compiler.

On some AMD64 Red Hat systems, the required OpenMotif libraries are not installed. If this is the case, you will need to install the **`openmotif-libs`** RPM as well, which is located in the same directory that contains the **`ccur-bench`** RPMs.

To install the NightBench RPMs, issue the following commands on your Linux system:

1. Insert the Installation CD in the CD-ROM drive

2. Mount the CD-ROM drive (assuming the standard mount entry for the CD-ROM device in **/etc/fstab** is **/mnt/cdrom**)

   ```
   mount /mnt/cdrom
   ```

   NOTE:

   Many systems automatically mount the CD when it is inserted. Some systems use **/media/cdrom** as the mount point for the CD device.

3. Change the current working directory to the directory containing the NightBench RPMs

   ```
   cd /mnt/cdrom/RPM/${arch}
   ```
   or
   ```
   cd /mnt/cdrom/linux-i386
   ```

4. Install the RPM

   ```
   rpm -i ccur-nbench-2.3.2-3.i386.rpm
   ```

   For Ada program development under NightBench, issue the following command:

   ```
   rpm -i ccur-nbench-ada-2.3.2-3.i386.rpm
   ```

   For C/C++ program development for PowerMAX OS under NightBench, issue the following command:

   ```
   rpm -i ccur-nbench-c-2.3.2-3.i386.rpm
   ```

   By default, the product is installed in **/opt/ccur**.

5. Change the current working directory outside the **/mnt/cdrom** hierarchy

   ```
   cd /
   ```

6. Unmount the CD-ROM drive (otherwise, you will be unable to remove the Installation CD from the CD-ROM drive)

   ```
   umount /mnt/cdrom
   ```

To uninstall the language-specific portions of NightBench, issue the following commands:

To remove NightBench support for Ada program development:

```
rpm -e ccur-nbench-ada
```

To remove NightBench support for C/C++ program development:

```
rpm -e ccur-nbench-c
```

To uninstall the base NightBench RPM, use the following command:

```
rpm -e ccur-nbench
```

5.0. Changes in This Release

This is a maintenance release of NightBench to support recent operating system revisions, such as Red Hat Enterprise Linux 4 and SUSE Linux 10.1.

6.0. Direct Software Support

Software support is available from a central source. If you need assistance or information about your system, please contact the Concurrent Software Support Center at our toll free number 1-800-245-6453. For calls outside the continental United States, the number is 1-954-283-1822 or 1-305-931-2408. The Software Support Center operates Monday through Friday from 8 a.m. to 5 p.m., Eastern Standard Time.

You may also submit a request for assistance at any time by using the Concurrent Computer Corporation web site at **http://www.ccur.com/isd_support_contact.asp** or by sending an email to **support@ccur.com**.