



ChorusOS 4.0 Installation Guide for Windows NT Hosts

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Preface

This document describes how to install the ChorusOS 4.0 product on a host workstation running Windows NT 4.0.

See the *ChorusOS 4.0 Installation Guide for Solaris Hosts* for instructions describing how to configure a boot server running the Solaris™ operating environment.

See the appropriate document in the *ChorusOS 4.0 Target Family Documentation Collection* for instructions explaining how to build and run the ChorusOS operating system on supported hardware.

Tip - In order to complete the entire installation process quickly, make sure you have:

- The hostnames of the host workstation, boot server and target system
 - The root passwords for the host workstation and boot server
 - The IP addresses of the host workstation, boot server and target system
 - The Ethernet address of the target system.
-

Who Should Use This Book

This document is intended primarily for system administrators managing host workstations running Windows NT 4.0.

Ordering Sun Documents

Fatbrain.com, an Internet professional bookstore, stocks select product documentation from Sun Microsystems, Inc.

For a list of documents and how to order them, visit the Sun Documentation Center on Fatbrain.com at <http://www1.fatbrain.com/documentation/sun>.

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What Typographic Conventions Mean

The following table describes the typographic changes used in this book.

TABLE P-1 Typographic Conventions

Typeface or Symbol	Meaning	Example
AaBbCc123	The names of commands, files, and directories; on-screen computer output	Edit your <code>.login</code> file. Use <code>ls -a</code> to list all files. <code>machine_name% you have mail.</code>
AaBbCc123	What you type, contrasted with on-screen computer output	<code>machine_name% su</code> Password:

TABLE P-1 Typographic Conventions (continued)

Typeface or Symbol	Meaning	Example
<i>AaBbCc123</i>	Command-line placeholder: replace with a real name or value	To delete a file, type <code>rm filename</code> .
<i>AaBbCc123</i>	Book titles, new words, or terms, or words to be emphasized.	Read Chapter 6 in <i>User's Guide</i> . These are called <i>class</i> options. You must be <i>root</i> to do this.

Shell Prompts in Command Examples

The following table shows the default system prompt and superuser prompt for the C shell, Bourne shell, and Korn shell.

TABLE P-2 Shell Prompts

Shell	Prompt
C shell prompt	<code>machine_name%</code>
C shell superuser prompt	<code>machine_name#</code>
Bourne shell and Korn shell prompt	<code>\$</code>
Bourne shell and Korn shell superuser prompt	<code>#</code>

Directory Conventions

The following table describes several of the directory conventions used in this book.

TABLE P-3 Directory Conventions

Name	Meaning	Example
<i>download_dir</i>	Directory into which you download the delivery of the ChorusOS 4.0 product.	C:\downloads\ChorusOS_4.0
<i>install_dir</i>	Directory into which you install the ChorusOS 4.0 product.	C:\Program Files\SUNW\ChorusOS\4.0

Obtaining the ChorusOS 4.0 Product

When you purchase the ChorusOS 4.0 product, your customer service representative sends you instructions detailing how to obtain the files required for installation.

Follow the instructions provided by your customer service representative in order to download the files required for installation.

This installation guide assumes that you have already saved the necessary files in a download directory such as `C:\downloads\ChorusOS_4.0`. For the rest of this document, we refer to this directory as *download_dir*.

Installing on the Host

This chapter explains how to install the ChorusOS 4.0 product development environment on a host workstation running Windows NT 4.0.

Note - Before you begin installation, make sure that the hard disk partition where you plan to install the ChorusOS 4.0 product is formatted with an NTFS file system.

Installing the Windows NT Upgrade

The Windows NT upgrade includes the Cygwin tools that offer you a UNIX-like interface atop Windows NT 4.0, and make it possible to install and use the ChorusOS 4.0 product. Among other things, it mounts all hard disk partitions under the root, such that the C: partition appears as /c.

Note - You must install the Windows NT upgrade *before* installing the ChorusOS 4.0 product.

1. **Select** Start | Run.
2. **Enter** `download_dir\winupgrade` in the field provided and **press** Enter to run the installation program.
3. **Follow** the instructions displayed on the wizard screens, reading the licensing terms carefully. If you develop applications or tools using the `cygwin.dll` library, you must respect the licensing terms.

Note - If the installation program finds that the current version of the Cygwin tools are already installed, the wizard asks if you want to keep and use the existing Cygwin tools installation. You may force reinstallation by replying “No” to this question.

4. **Exit the installation program after you have finished installing the software.**

Installing the ChorusOS 4.0 Product

ChorusOS 4.0 product installation uses the Cygwin tools.

1. **Select Start | Programs | Cygnus Solutions | Cygwin B20 to open a terminal window.**
2. **Run the ChorusOS 4.0 product installation script from the directory where it is located:**

```
bash-2.02$ cd download_dir
bash-2.02$ sh extract.sh
```

3. **When the script has finished, find `cygnus.bat` and open it with Notepad.**
4. **Add a line before the `bash` that sets the `PATH` environment variable so that it points to the `Chorus\opt\SUNWconn\SEW\4.0\CHORUS~1\tools\bin` directory, as in the following example:**

```
SET PATH=c:\cygnus\CYGWIN~1\Chorus\opt\SUNWconn\SEW\4.0\CHORUS~1\tools\bin;%PATH%
```

5. **Exit the terminal window:**

```
bash-2.02$ exit
```

6. **Select Start | Programs | Cygnus Solutions | Cygwin B20 to open a terminal window again.**
7. **Verify that you are able to access ChorusOS 4.0 product executables:**

```
bash-2.02$ ChorusOSMkMf  
ChorusOSMkMf config-file [-s source-dir] [-b build-dir] [-d dist-dir]
```


Where to Go from Here

This chapter suggests documents that provide further information.

After you have installed the ChorusOS 4.0 product on your host workstation, you can install the AnswerBook2™ format documentation on a system running Solaris operating environment and prepare a boot server running the Solaris operating environment to download system images to the target system. See the *ChorusOS 4.0 Installation Guide for Solaris Hosts* for instructions.

Next, proceed to the appropriate document in the *ChorusOS 4.0 Target Family Documentation Collection*. There you will find instructions on how to build a system image on your host workstation that you can place on the boot server and download to the ChorusOS target system at boot time.

Once you have managed to boot the target system, you can configure and build a system image that supports exactly what you need to develop applications. *Introducing ChorusOS 4.0* presents the features and components of ChorusOS systems. It explains how to use ChorusOS 4.0 and how to create an application that runs on a ChorusOS system. The XRAY Debugger documentation from Mentor Graphics explains how to debug a ChorusOS application. XRAY is the reference debugger for use with ChorusOS systems.

Perhaps you need to port the ChorusOS 4.0 product to your specific hardware. The *ChorusOS 4.0 Porting Guide* explains how to port the ChorusOS system to another target board. If you have developed new drivers for your hardware, the *ChorusOS 4.0 Device Driver Framework Guide* describes the device driver architecture of the ChorusOS system and explains how to add a new driver.

For system administration tasks the *ChorusOS 4.0 File Systems User's Guide* describes how to use the file systems supported by the ChorusOS 4.0 product, including NFS and the *ChorusOS 4.0 Network Administration Guide* details how to use the networking capabilities of the ChorusOS 4.0 product.

For those designing and developing highly available applications, the *ChorusOS 4.0 Hot Restart Guide* describes how to develop applications to use the hot restart functionality of the ChorusOS 4.0 product.

Finally, the *ChorusOS 4.0 Reference Manual Collection* contains all of the on-line manual pages for the ChorusOS 4.0 product.

Default File Locations and Directory Contents

The table below briefly describes the contents of the directories created on the host workstation where you install the ChorusOS 4.0 product. By default *install_dir* is C:\Program Files\SUNW\ChorusOS\4.0.

TABLE A-1 Default File Locations and Directory Contents

Directory or File	Contains
<i>install_dir</i> /4.0/chorus-bsps	Board support package source files
<i>install_dir</i> /4.0/chorus-doc	Product documentation in HTML and PDF format, Reference manual pages
<i>install_dir</i> /4.0/chorus-powerpc/nucleus	Binary files for the ChorusOS kernel and drivers
<i>install_dir</i> /4.0/chorus-powerpc/opt/X11	Binary files for X Windows
<i>install_dir</i> /4.0/chorus-powerpc/opt/XRAY	XRAY debugger for ChorusOS (requires separate installation)
<i>install_dir</i> /4.0/chorus-family/os	Binary files for the ChorusOS operating system
<i>install_dir</i> /4.0/chorus-powerpc/src	Source files and examples

TABLE A-1 Default File Locations and Directory Contents *(continued)*

Directory or File	Contains
<i>install_dir/4.0/chorus-powerpc/tools</i>	Development tools
<i>install_dir/4.0/readme.html</i>	Important information concerning this release
<i>install_dir/4.0/release.html</i>	Notes concerning this release