Chapter 3

Installing a UnixWare 7 system

This chapter explains how to install the UnixWare 7 operating system on your computer. Specifically, it covers:

- responding to installation prompts (this page)
- installing the software (page 34)

If you have difficulty installing your system, see the installation troubleshooting section of the *Runtime Release Notes*.

Responding to prompts

Use these keys when responding to prompts for information during the first section of the installation (before software loading begins):

To:	Press:
Get help	⟨F1⟩
Toggle or display choices	⟨F2⟩
Read/write to media	⟨F3⟩
Configure advanced parameters	⟨F6⟩
Defer configuration	⟨F8⟩
Move back one window	⟨F9⟩
Move forward one window	⟨F10⟩
Move down	⟨↓⟩
Move up	⟨↑⟩
Move through selections	⟨Tab⟩
Select items in a list	⟨Space⟩
Accept an item	⟨Enter⟩
Enter an item	⟨Enter⟩

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If you make an error while entering information, use the ⟨Bksp⟩ key or ⟨Ctrl⟩**H** to erase a character from the end of a line.

The installation procedure

Read Chapter 2, "Before you install" (page 11) and complete any necessary installation checklists (page 14) before installing UnixWare 7.

Follow the procedure shown here to install UnixWare 7 on your system:

1. Before beginning any installation, make sure you have up-to-date backups of all the data currently on your system. Some of the options available during installation overwrite all the data on the hard disk, including user data and DOS partitions.
2. If you are performing a networked installation, you must create two 3.5 inch Network Installation Utilities diskettes from the images found in the images directory on the UnixWare Installation CD-ROM (*/info/images*). See (*/info/images/readme.htm*) for more information.
3. With the power off, insert the first UnixWare 7 installation diskette into the primary diskette drive.

   If you have more than one diskette drive, make sure the 3.5-inch drive is the primary drive (sometimes called the boot drive). Check your computer hardware manual if you are unsure which is the primary drive.
4. Turn on your computer.

   After displaying hardware information, the message `Starting UnixWare...` and the animated SCO logo appear. It may take several minutes to load the system from the installation diskette.
5. If prompted, choose the desired language at the Language Selection window.

   This sets the language for the installation.
6. When prompted, insert the second installation diskette and press ⟨Enter⟩. After software is extracted from the diskette, the Welcome window appears.
7. From the Welcome window:
   - If you have an installation response diskette you saved from a prior UnixWare 7 installation, or a vendor-supplied installation diskette, insert it and press ⟨F3⟩. Press ⟨F10⟩ to continue after the disk loads.
   - If you do not have one of the above, press ⟨F10⟩ to continue.
8. Using the answers that you recorded in the "Installation checklists" (page 14), enter zone, locale, keyboard, and licensing information in the next several windows.

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One or two lines at the bottom of the window give brief instructions for completing each field. For more detailed help, press ⟨F1⟩.

9. When the system prompts you to load hardware configuration information, insert the SCO HBA diskette in the diskette drive, select **Install HBA diskette**, and press ⟨F10⟩. It takes several minutes to read the diskette. After the diskette is loaded, you are prompted to install any additional HBA diskettes that might have been supplied by your vendor. Continue to load diskettes until you have installed all HBA drivers, then select **Proceed with installation** and press ⟨F10⟩.

10. At the Device Configuration Utility (DCU) window, you may choose to enter the DCU to configure hardware drivers.

    - Most host adapter and CD-ROM devices are correctly auto-detected by UnixWare 7. For these installations, select **Do not enter the DCU (auto-configure drivers)** and press ⟨F10⟩.
    - In some cases, you must run the DCU to configure a device needed for installation, such as a CD-ROM drive. Select **Enter the DCU (manually configure drivers)** and press ⟨F10⟩. See Appendix A, "Configuring installation hardware" (page 91) for information on using the Device Configuration Utility.

    > **NOTE** **SCO recommends that you only configure those devices needed to install UnixWare 7** during the installation process. You can run the DCU after the system is installed to configure additional peripherals.

    After you choose one of the above, the system displays the detected or selected drivers as it installs them.

11. Enter the node name of the system and press ⟨F10⟩. Do not enter a fully-qualified node name (including the domain); you can enter the domain name later during network configuration.

12. At the Installation Method window, select one of the following:

    - **Install from CD-ROM**. Insert the CD-ROM into the drive and press ⟨F10⟩.

      If **Install from CD-ROM** does not appear in the list, the device is not configured correctly. Select **Cancel installation and shut down**, re-start the installation, and run the DCU interactively as shown in step 10.
    - **Install from TCP network server**. Press ⟨F10⟩, complete the procedure "Configuring a TCP network installation" (page 39), and return to step 13.
    - **Install from SPX network server**. Press ⟨F10⟩, complete the procedure "Configuring an SPX network installation" (page 40), and return to step 13.

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13. Configure up to two detected hard disks.

    Use the ⟨Tab⟩ key to select the disk to configure, then press ⟨F2⟩. Select one of:

    - **Use the whole disk for UNIX** to use the entire disk for UnixWare 7 and remove any pre-existing data on other partitions.
    - **Customize disk partitions** to edit the partitions table or preserve pre-existing partitions.

      Enter the information from the partitions checklist (page 25) and press ⟨F10⟩ when done.
    - **Do not modify**, to skip modification of the second disk. This option does not appear for the first disk.

    You can also select **Re-load partition information from disk** to restore the configuration on your hard disk to what it was when you started the installation.

    After you make your selections for both hard disks, press ⟨F10⟩.

14. Choose whether or not to customize filesystems and slices.

    For a description of filesystem defaults, see the filesystems checklist and notes (page 27).

    Select one of the following and press ⟨F10⟩:

    - **Use default filesystem sizes and types**

      The defaults are adequate for most installations.
    - **Customize filesystems and slices**

      Using the information from the filesystems checklist (page 27), modify the filesystems table. Press ⟨F10⟩ when done.

    NOTE By default, each filesystem has a 64K inode limit. This limits the number of files and directories you can create in a given filesystem. You can remove this restriction by choosing **Customize filesystems and slices**, highlighting the filesystem to configure, and pressing ⟨F6⟩ to configure advanced parameters. Change the 64K inode limit to **No**.

15. Choose whether or not to customize special disk operations.

    WARNING Resetting the disk geometry will remove all data on your disk, including data in non-UNIX partitions. This option is not enabled by default and should be used with extreme caution.

    Select one of the following and press ⟨F10⟩:

    - **Use default disk options**

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Defaults are to install a new boot sector on disk one and disable disk scanning and disk geometry resetting for disks one and two.

- **Customize disk options**

  Select the disk options to enable or disable, then press ⟨F10⟩.

16. Choose a system profile:
    - To install license-based defaults, a small footprint server, or all packages, highlight the appropriate choice and press ⟨F10⟩.
    - To customize your configuration (to add or remove services and packages), highlight **Customize Installation of Packages** and complete the procedure “Manually selecting sets, services, and packages” (page 41) before continuing with step 17.
17. If you did not perform a networked installation, but did select networking packages, the system attempts to detect a network adapter.
    - If zero or one adapters are detected, you move directly to the Adapter Selection window (step 18).
    - If more than one adapter is detected, or if the system cannot associate an adapter type with the detected chipset, you are prompted to select the correct adapter type or choose to ignore the detected adapter. Do so and press ⟨F10⟩.
18. Choose one of the following to select an adapter or defer configuration:
    - **Use the detected adapter shown above**

      Choose this option and press ⟨F10⟩ if only one adapter was detected and you want to use it.
    - **Select from the detected adapters shown above**

      Choose this option and press ⟨F10⟩ if more than one adapter was detected. Then, select the desired adapter and press ⟨F10⟩.
    - **Select from the full list of supported adapters**

      Press ⟨Enter⟩, select the desired adapter from the list, then press ⟨F10⟩.
    - **Defer network configuration**

      If you choose this option, network adapter, TCP/IP, IPX/SPX, and NIS configuration are all deferred until they system is booted. Use the SCOadmin **Network Configuration Manager** to configure the network.

19. Enter the network card configuration parameters from the "Network adapter checklist" (page 22) and press ⟨F10⟩ when done. In the next several windows, enter network configuration information for the following services (if you installed them):

    TCP/IP from the TCP/IP configuration parameters checklist (page 23).

    IPX/SPX from the IPX/SPX configuration parameters checklist (page 24).

    NIS from the NIS configuration parameters checklist (page 24).

    NOTE You can defer configuration for any of these services by pressing ⟨F8⟩. If you defer TCP/IP configuration, NIS configuration is automatically deferred.

    If you use the ⟨F9⟩ and ⟨F10⟩ keys to re-enter a configuration window for a service you already deferred, press ⟨F8⟩ again if you still want to defer configuration.

20. In the windows that follow, enter date and time, security level, system owner, and *root* (superuser) data, taking the information from the installation checklist (page 15).

    Do not forget the *root* password. To restore a forgotten *root* password, you must reinstall your system.

21. From the Optional Services window (accessed after the Root Password window) you can view information about optional services available from SCO. Press ⟨F10⟩ when done.

22. View the license terms, select **Accept**, and press ⟨F10⟩ to continue.

23. You are prompted to continue the installation, deleting any data in the active partition and (depending on which special disk options you chose) possibly other partitions as well. At this point, you can:

    - Continue the installation, by pressing ⟨F10⟩.
    - Save your installation answers to a pre-formatted diskette, by pressing ⟨F3⟩. You can then use this diskette to quickly install this or another UnixWare 7 system using the same responses.
    - Step back through the installation to change any of your answers, by pressing ⟨F9⟩.

24. After you confirm that you want to install the software on your system, the software load begins after any disk setup or badtracking. Software load is the longest stage of the installation. You can track the progress of the installation by viewing the progress indicator.

    After the software is loaded, the kernel (*/stand/unix*) is rebuilt. This takes several minutes.

25. After you see a message indicating that the kernel was rebuilt successfully, remove all diskettes, tapes, and CD-ROMs from the various drives on your system and press any key to reboot.
26. Enter mouse configuration information from the installation checklist.

    After you choose the mouse type and number of buttons, you proceed to the mouse test. Verify the mouse is functional by moving the mouse and pressing a mouse key.

    If the mouse is configured successfully, the installation continues. If it is not, you move back to the Mouse Configuration window.
27. You are prompted for insertion of other CD-ROM volumes in the set. Depending on your license and the software already installed on your system, you are then presented with a list of products you can install. Default selections matching your license are automatically highlighted for installation. You can override these defaults by selecting or de-selecting products. If you have insufficient disk space, you have the option of installing these products at a later time.
28. Installation is now complete. The system automatically boots into multi-user mode.

For information on first-time setup tasks, see the next chapter.

Configuring a TCP network installation

Follow this procedure to configure your system to install UnixWare 7 from an installation server running TCP/IP:

1. Choose **Install from TCP server** in step 12 of the main installation procedure (page 35).

   The Configure Network Installation Server window appears.
2. Choose **Configure Networking Hardware**.
3. The system attempts to detect a network adapter on your system.
   - If zero or one adapters are detected, you move directly to the Adapter Selection window (step 4).
   - If more than one adapter is detected, or if the system cannot associate an adapter type with the detected chipset, you are prompted to select the correct adapter type or choose to ignore the detected adapter. Do so and press ⟨F10⟩.
4. Select a network adapter. Choose one of the following:
   - **Use the detected adapter shown above**

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Choose this option and press ⟨F10⟩ if only one adapter was detected and you want to use it.

- **Select from the detected adapters shown above**

  Choose this option and press ⟨F10⟩ if more than one adapter was detected. Then, select the desired adapter and press ⟨F10⟩.

- **Select from the full list of supported adapters**

  Press ⟨Enter⟩, select the desired adapter from the list, then press ⟨F10⟩.

5. Insert the appropriate network utilities diskette and press ⟨Enter⟩.
6. Enter the required configuration parameters for the selected adapter from the "Network adapter checklist" (page 22). Pressing ⟨F2⟩ presents a list of valid choices for each parameter. When you finish entering all parameters, press ⟨F10⟩.
7. Choose **Configure Networking Protocol**.

   The TCP/IP configuration window appears.
8. Enter the configuration parameters from the TCP/IP configuration parameters checklist (page 23). Press ⟨F10⟩ when done.
9. If the network adapter you chose is configured correctly and the Install Server responds to your request, return to the main installation procedure at step 13 (page 36).

   If the Install Server is unreachable, you may need to reconfigure the protocol parameters to, for example, specify a different server address.

Configuring an SPX network installation

Follow this procedure to configure your system to install UnixWare 7 from an installation server running IPX/SPX:

1. Choose **Install from SPX server** in step 12 of the main installation procedure (page 35).

   The Configure Network Installation Server window appears.
2. Choose **Configure Networking Hardware**.
3. The system attempts to detect a network adapter on your system.
   - If zero or one adapters are detected, you move directly to the Adapter Selection window (step 4).
   - If more than one adapter is detected, or if the system cannot associate an adapter type with the detected chipset, you are prompted to select the correct adapter type or choose to ignore the detected adapter. Do so and press ⟨F10⟩.

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4. Select a network adapter. Choose one of the following:
   - **Use the detected adapter shown above**

     Choose this option and press ⟨F10⟩ if only one adapter was detected and you want to use it.
   - **Select from the detected adapters shown above**

     Choose this option and press ⟨F10⟩ if more than one adapter was detected. Then, select the desired adapter and press ⟨F10⟩.
   - **Select from the full list of supported adapters**

     Press ⟨Enter⟩, select the desired adapter from the list, then press ⟨F10⟩.
5. Insert the appropriate network utilities diskette and press ⟨Enter⟩.
6. Enter the required configuration parameters for the selected adapter from the "Network adapter checklist" (page 22). Pressing ⟨F2⟩ presents a list of valid choices for each parameter. When you finish entering all parameters, press ⟨F10⟩.
7. Choose **Configure Networking Protocol**.

   The IPX/SPX configuration window appears.
8. Select the frame format by pressing ⟨F2⟩, selecting from the list, and pressing ⟨Enter⟩. You must specify a frame format before designating the Install Server in the next step.
9. Choose the desired Install Server by pressing ⟨F2⟩, selecting from the list, and pressing ⟨Enter⟩.

   The number in brackets is the number of network hops required to reach the server.
10. If the network adapter you chose is configured correctly and the Install Server responds to your request, return to the main installation procedure at step 13 (page 36).

    If the Install Server is unreachable, you may need to reconfigure the protocol parameters to, for example, specify a different server name.

Manually selecting sets, services, and packages

Follow this procedure if you chose **Customize Installation of Packages** in step 16 (page 37).

1. Select a set to configure from the list and press ⟨F10⟩.

   Each set is made of several services, which in turn consist of individual packages.

By default, your license will set each service to be partially installed (PART), fully installed (FULL), or not installed (OFF).

2. Highlight the service you want to customize and press ⟨F2⟩.

   Choose to:

Select individual packages	Skip to step 3.
Select all packages (FULL)	Skip to step 4.
Select no packages (OFF)	Skip to step 4.

3. For each package, press the space bar to toggle the selection on (∗) or off ( ). Press ⟨PgUp⟩ and ⟨PgDn⟩ to move through the complete list of packages.

   When done making selections, press ⟨Enter⟩.

4. Repeat steps 2-3 for each service you want to configure. When done configuring all services, press ⟨F10⟩.

5. Highlight another set to configure and repeat steps 1-4.

   When you finish configuring sets, select **Accept current selections and continue** and press ⟨F10⟩.

6. If a package you select has dependencies on a package you de-selected, you are prompted to choose one of the following:

   - **Resolve Dependencies Automatically**

     Automatically adds necessary packages to the selection list. Skip to step 7.

   - **View List of Needed Packages**

     Displays necessary packages so you can decide whether to automatically resolve dependencies or go back and manually alter your selections. Follow the instructions on the screen to view the dependencies list for each each package, then press ⟨F9⟩ and choose to resolve dependencies automatically or return to package selection.

   - **Return to Service/Package Selection**

     Allows you to manually alter your selections. Move back to step 1.

7. After you resolve any dependency issues, rejoin the main installation procedure at step 17 (page 37).

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