

Tru64 UNIX Best Practice

Searching Tru64 UNIX Documentation

October 2001

Product Version: **Tru64 UNIX Version 4.0D or higher**

This Best Practice describes how to find information in Tru64 UNIX, TruCluster Server, and related product documentation.

Contents

Searching Tru64 UNIX Documentation

Is This Best Practice Right for You?	1
Before You Click on a Search Option	2
Using Search That Is Restricted to Specific Sets of Documents	6
Creating and Refining Your Search Words	8
Alternative Practices	9
Using the CDE Find Facility to Search a CD-ROM (on UNIX Systems)	9
Using the Windows Find or Search Facility to Search a CD-ROM (on PCs)	10
Comments and Questions	12
Legal Notice	12

Searching Tru64 UNIX Documentation

This Best Practice describes how to use the search and navigation aids that are available for Compaq Tru64™ UNIX, Compaq TruCluster™ Server, and other product documentation on the Tru64 UNIX Documentation Web site.

See the Tru64 UNIX Best Practices Web page for more information about Best Practices documentation.

Is This Best Practice Right for You?

This Best Practice is appropriate for you if your attempts to find information about using the Tru64 UNIX operating system and its associated products are frustrated by one or more of the problems described in this section.

Searching a large corporate Web site or multiple CD-ROMs for the technical information you need can be time consuming. Web search options backed by Web-crawler technology are frequently subject to one of the following problems when applied to a large corporate site:

- The central index spans too wide a range of products, product releases, and document formats. As a result, the “hits” (search results) returned to your queries include many slightly different versions of the same document residing at multiple locations or include documents about products that you do not use.
- The central index contains entries for Web pages only at the highest levels of the corporate hierarchy. As a result, fewer hits are returned to your queries. Although these hits address the general subject of your query and are easier to sort through, they are often missing the detailed instructions that you require to perform a particular task or solve a particular problem.

Searching documentation supplied through the CD-ROMs included in the Tru64 UNIX media kit is subject to the following problems:

- The CD-ROMs have to be searched one at a time.
- Support for search engine implementations differs across platforms, such that the implementation for UNIX users is either less robust than the implementation for PC users or is unavailable.

- On large server systems, users wanting to search documentation often do not have privileges to mount media on the CD-ROM drive of their system; or they do not ask for documentation media to be made available because they are unaware that it exists.
- Users who have access to laptops or desktop PCs might not have access to (or even know about) the documentation CD-ROM media that shipped with the Tru64 UNIX product release in which they are interested.

Finally, those who can log in as the root user on a Tru64 UNIX Factory Installed System (FIS) have access to a few books that are installed directly on the system disk. These books are automatically available when the root user invokes Netscape from the SysMan interface but are not installed with a search engine and index. Sometimes users assume that the few books loaded on the system disk are the only ones that ship in a product kit and do not bother to see what is available on the documentation CD-ROM.

This Best Practice shows you how to work around these problems by using the Internet. Alternative suggestions that require privileged access to your local system or a documentation server to be set up at your site are described in *Alternative Practices*.

Before You Click on a Search Option



This section gives you a quick tour of the Tru64 UNIX documentation Web page hierarchy and its features so you know what kinds of documents are available to search and which search tool focuses specifically on this area.

The most comprehensive collection of Tru64 UNIX product documentation is available at <http://www.tru64unix.compaq.com/docs/>.



This Web site contains documentation also included on the Tru64 UNIX documentation CD-ROM as well as documentation for several of the Compaq layered products included on the Tru64 UNIX Associated Products CD-ROMs. The site also contains additional information that does not ship with a product release.

As you read this section of the Best Practice, you will click on the various pages being discussed to see them in a second pop-up window. The first time that this pop-up window appears, move it to a position that is most convenient for you. Although you can explore further in the pop-up window itself, it is probably best to click on links provided in the text of this section and use the pop-up window only to see the Web page that you are reading. Otherwise, you will spend a lot of time sorting through and closing windows that cover up this one.

Click on <http://www.tru64unix.compaq.com/docs/> now to see the top-level Web page for Tru64 UNIX documentation. This is a good page to add as a bookmark for your browser. This page contains two search options:

- Corporate-level search, backed by a Web crawler, is available by clicking on the word “Search” () in the Compaq masthead at the top of the Web page.
- Full-text search that is restricted to specific sets of Tru64 UNIX documentation is available by clicking on the magnifying glass icon () in the middle of the Tru64 UNIX documentation Web page. At the time this Best Practice was written, full-text search was available for different releases of the base operating system manuals and reference pages, and also for Best Practices. Search will be extended to releases of layered product documentation sets, patch kit documentation, and Technical Updates in the future.

Starting with Tru64 UNIX Version 5.1A, the same full-text search option is supported for the Tru64 UNIX documentation CD-ROM when it is mounted on a UNIX system. Prior to Version 5.1A, CD-ROM search was supported only when the Tru64 UNIX documentation CD-ROM was mounted on a PC.

The Tru64 UNIX documentation set search (), corporate-wide search (), or both search choices appear on a number of Web pages at the Tru64 UNIX documentation Web site. It is therefore helpful for you to remember the difference between the two search options. This Best Practice describes the documentation set search option.

The remainder of this section gives you a tour of the documentation and navigation tools that are available at the Tru64 UNIX documentation Web site. If you are already familiar with the Web site and do not need this tour, proceed to *Using Search That Is Restricted to Specific Sets of Documents*.

The Documentation News page presents a chronological list documents added to the Web site, along with the dates when they first appeared. This page most benefits users who have visited the site before.


The Tru64 UNIX base operating system manuals and reference pages form the largest collection of documents at the site. Base operating system documents are grouped first by product version number.

For each version (for example, Version 5.1A), you have the following choices. These choices are the same as provided on the documentation CD-ROM

that ships with the operating system product; however, the Web site listing often includes additional documents, such as Technical Updates and the *NUMA Overview*, that are published and updated after the release media ships.

- Reference pages are HTML versions of the same files you can read at the system command line by using the `man` command.

From the Reference Pages Web page, you have a choice of displaying all reference pages whose names start with a specific letter (across all man section directories) or an alphabetical listing of reference pages in a particular man section directory.

The Search by Keyword option () that you see on this page is an implementation of the UNIX `apropos` command for Web browsers. In other words, it allows you to do a case-insensitive search of the text that occurs in the NAME sections of Tru64 UNIX reference pages. (Starting with Tru64 UNIX Version 5.1A, reference pages for both the base operating system and TruCluster Server products are searched.)

The Search by Keyword option is most useful for experienced UNIX users who are already familiar with the reference pages and are trying to track down one that they have seen before. The full text search option discussed in *Using Search That Is Restricted to Specific Sets of Documents* is a more comprehensive search of both reference pages and books.

- Base operating system manuals are grouped into library bookshelves by subject:

- General User Documentation Bookshelf

Among the books in the General User Documentation Bookshelf is the *Documentation Overview*, which contains useful summaries of all the books and other documentation provided in the Tru64 UNIX media kit. This overview also lists the part numbers that you need to specify when ordering sets of manuals in printed form.

- System and Network Management Documentation Bookshelf
- Programming Documentation Bookshelf
- Additional Documentation Bookshelf

Some documents, such as the *Tru64 UNIX Release Notes*, are listed in more than one bookshelf because they contain information that spans bookshelf topics.

- The Web page that lists the Tru64 UNIX bookshelves also includes a *Master Index* and an option to “Search the Master Index.” The *Master Index* is a document that helps you locate information contained in base operating system books, particularly if you are not sure which strings to enter through other search tools to get to the information you want.

The “Search the Master Index” option can save you some time browsing through the *Master Index* entries. The disadvantage of browsing or searching the *Master Index* is that you cannot use this navigation aid to find information contained in reference pages, release notes, or any documents that were not published when the product media shipped.

The following kinds of documents are available from the Tru64 UNIX Documentation site’s sidebar listing of product documentation sets and additional topics:

- TruCluster Server manuals and reference pages
- Advanced Printing Software manuals
- Advanced Server for UNIX manuals
- Device driver development manuals and reference pages
- Internet Express (formerly Open Source Internet Solutions) manuals
- Porting guides (for AIX, SCO UNIX, SGI IRIX, HP-UX, Compaq NonStop-UX, Sun Solaris, and OpenVMS)
- POSIX Conformance documents for the base operating system
- Secure Shell documentation
- Translations of base operating system and associated product documentation as they become available
- Windows 2000 Single Sign-On documentation
- QuickSpecs or Software Product Descriptions (SPDs) for both the base operating system and layered products

In addition, you can access the following kinds of documents only on the Web:


- Best Practices that cover the base operating system and several layered products
- Technical Updates (or “post-release” notes) for the base operating system, device driver, and TruCluster Server products

- Patch Kit documentation for the base operating system and TruCluster Server products
- Miscellaneous documents, such as the *NUMA Overview*

These documents are either created or are subject to change following product release dates. They are therefore not included on any of the CD-ROMs shipped with the Tru64 UNIX media kit.

Using Search That Is Restricted to Specific Sets of Documents



If you are interested in restricting your search to the documentation set for a particular release of a product, use the search tool that is available

by clicking on the Search the Documentation Sets icon (). This option allows you to search HTML versions of all manuals and reference pages for a particular product release or to search certain categories of documents, such as Best Practices, that are available only on the Web. The list of documentation sets or Web-only documents to which you can restrict a search will grow over time. Keep the window with the top-level documentation search page open, as you will use it to follow the instructions in this section.

The sample topic being used for search practice is “How do the device name changes that were introduced with Tru64 UNIX Version 5.0 affect my storage configuration and maintenance procedures?” This is a rather broad topic, but let’s assume that you are thinking of updating your operating system from a Version 4x release to Version 5.1A and want to review as many of the details about the device names as you can before you update the operating system.

1. In your Tru64 UNIX Documentation Search window, click on Tru64 UNIX Version 5.1A to search the base operating system books and reference pages.

The window changes to a dialog box with the subtitle Tru64 UNIX Version 5.1A Documentation Search.

2. Click on the search help icon () to read the guidelines for entering search strings. When you are done, you can click on the “return to the search page” icon () to get back to the search entry form.
3. In the “Find these words:” field, enter `device naming`. When “Find all words” is checked (the default), it means that the search engine will list a file (either a book chapter or a reference page) only if it

contains all the specified words. Click on the magnifying glass icon to start the search.

4. Look over the list of files.


The files that are returned under “Search results:” are listed from highest to lowest relevance according to a relevance score. A file achieves a high relevance score if it contains the words you specified close together, if there are many instances of each of the words that you specified, and if those instances represent a relatively high percentage of the total number of words in the file.

The most relevant files are likely to occur in the top fifteen or so list positions. Because the words “device,” and “naming” are fairly generic, the list can include a few files unrelated to your topic. When you search for relatively common words, files that do not contain the information you are looking for can sometimes receive a high relevance score. This usually happens if the file is very small relative to other files that contain the words or if the file contains many instances of each search word but they are not close together.

5. Click on a few of the returned files to see what they say, but use the following guidelines:
 - In the pop-up window where the file appears, you might need to use your browser’s Find function to get to the exact location of information relevant to your topic. In this case, it is best to use one word, such as “device,” when searching the file. Browser Find functions are subject to exact pattern matching rules, so device naming might be too restrictive.
 - Because each file that you click on will come up in a different window, close it before viewing another file; otherwise, your screen will be overpopulated with windows very quickly.
6. After searching the documentation that ships with the product media, see if there is information relevant to your subject in any of the Best Practices.

In the search entry form window, click on your Web browser’s Back icon twice, the first time to return to the Tru64 UNIX Version 5.1A Documentation Search window and the second time to return to the Tru64 UNIX Documentation Search main window.

7. In the Tru64 UNIX Documentation Search main window, click on Best Practices.

8. In the “Find these words:” field, enter `device naming` and then click on the magnifying glass icon ().
9. Click on entries in the returned list of Best Practices to see what they say. You might need to use your Web browser’s Find function to zero in further on the information you are looking for; however, most of these documents are fairly short and easy to scan.

Creating and Refining Your Search Words

The best search results are usually obtained by entering one to three descriptive words and searching for files that contain all of them.

After reading a few of the files returned for an initial search, you might discover a few words that will get you exactly what you want. To find examples (always a popular result), search for a unique function or command name or a unique header in screen displays, plus the word “example.” For example, after reading some of the information about device naming, you might want to try a follow-up search for `hwmgr example` and `dsfmgr example` in both the documentation set and the Best Practices search entry forms.

Two restrictions of the search technology that you are using now are worth emphasizing:

- The first restriction is that the search index does not support quoted (exact) phrases. However, word proximity is considered when files are given a relevance score. So if there are any files in which all your search words occur next to one another, those files usually appear near the top of the search results list.
- The second restriction is that the index does not contain any words that contain punctuation characters. For example, you cannot search for file names that contain periods (dots); if you include punctuation characters in your search strings, they will be automatically deleted from the string before the search is done. However, you can almost always get around this restriction by choosing several descriptive words that always occur in the kind of discussion that you are interested in.

There are two features on a search entry form that were not discussed in *Using Search That Is Restricted to Specific Sets of Documents*:


- The “Exclude these words:” field and its associated “Exclude *all* words” and “Exclude *any* words” checkboxes

Use these with care, remembering that you are limiting search to files that have no instance of the word in the entire file. For example, if you

enter device naming in the “Find these words:” field and device driver in the “Exclude these words:” field, it will not improve the results of the initial search. In fact, you need to set the “Exclude *all* words” checkbox to get any results at all.

The “Exclude these words:” option can sometimes pare down a large number of results for an initial query, as long as you are sure that any words being excluded are highly unlikely to occur in a book chapter that discusses the topic that you are interested in. Keep in mind that a file for a glossary and some chapters of release notes tend to cover a wide range of topics and are more likely than other files to be eliminated when you exclude words. The same will be true for patch kit documentation (when search for that category of documentation is made available to you).

- “Advanced Search”

By clicking on “Advanced Search,” you bring up a search entry form that lets you create complex queries by using logical operators. If you decide to try “Advanced Search,” be sure to click on its help icon () to read about the logical operators.

Using the “Advanced Search” form rather than the “Basic Search” form is a matter of preference. For most people using search, however, the returned value tends to go down as the cost in key strokes goes up.

Alternative Practices

A number of documentation search alternatives do not require Internet access. This section discusses two of those options.

Using the CDE Find Facility to Search a CD-ROM (on UNIX Systems)

If you do not have Internet access from your UNIX system and are searching a documentation CD-ROM prior to Tru64 UNIX Version 5.1A, you can search using the CDE Find facility as follows:

1. Mount the documentation CD-ROM on a local mount point as described in Section 8.2 of the *Installation Guide*, or ask your system administrator for a pointer to a local or remote export that you can mount.
2. Using the File Manager from the CDE Front Panel, open the /DOCS/HTML folder where the documentation CD-ROM is mounted.

3. From the folder's File menu, invoke the CDE Find facility.
4. Enter a search string in the File Contents field, for example:

```
"file system tuning"
```

All the pattern matching options of the `find` command are available here. See `find(1)` for more information.
5. A list of HTML files in which the string is found is displayed in the Files Found (by Contents) field.
Click on the HTML files to put them in the workspace.
6. Invoke the Netscape browser from the Personal Applications menu on the CDE Front Panel.
7. Drag-and-drop an HTML file on the Netscape browser to view the files.

You can configure actions in CDE to shorten this procedure.

Any file named `TOC.HTM` will take you directly to a table of contents entry that contains the search string. Clicking on that entry then takes you to the definitive source. There are many hyperlinks between the online volumes, so any entry point will link you to related sections throughout the entire documentation set.

Using the Windows Find or Search Facility to Search a CD-ROM (on PCs)

If you do not have a CD-ROM that you can mount in your PC's CD-ROM reader, you can still search a CD-ROM mounted on a remote system at your site. Because the Internet Explorer browser is integrated into the Windows desktop, you can search any mounted file system in a client/server environment. Such a file system can be the Tru64 UNIX documentation CD-ROM if a system or network administrator at your site has made the CD-ROM available on the network.

Although searching a remote CD-ROM may be slower than Web searching, it will return a more precise hit list and hit the specific book section rather than the whole book. You can start reviewing hits before the search is complete. The procedure you use varies slightly, depending on whether you are using Windows 98 or Windows 2000.

Use the following procedure for Windows 98:

1. Obtain the location of the network object where the CD-ROM is mounted from your network administrator. The location will have a format that includes backslashes (`\\srvr1\t64udocs`, for example).

2. Move the cursor to the My Computer desktop icon, and press the right mouse button. From the menu, select the Map Network Drive option and map a drive to the location of the remote network object. You need only do this once.
3. Invoke the Find Files or Folders facility from the Windows Start Menu.
4. Enter the drive number that maps to the documentation CD-ROM.
5. Use the Advanced tab to specify the item or string for which you are searching, such as `file system tuning`.

The Windows Find facility will return a list of HTML files for any books and reference pages that contain the search string. Because HTML files are linked to the browser by default, you can then click on the file icon to open the document in the browser.

Any file named `TOC . HTM` will take you directly to a table of contents entry that contains the search string. Clicking on that entry then takes you to the definitive source. There are many hyperlinks between the online files, so any entry point will link you to related files throughout the entire documentation set.

Once in a file, use your browser's Find function, if necessary, to locate instances of the search string.

Use the following procedure for Windows 2000:

1. Obtain the location of the network object where the CD-ROM is mounted from your network administrator. The location will be a format that includes backslashes (`\\srvr1\t64udocs` for example).
2. Move the cursor to the My Computer desktop icon, and press the right mouse button. From the menu, select the Map Network Drive option and map a drive to the location of the remote network object. You need only do this once.
3. From the Windows Start menu, click on the Search facility and choose the For Files and Folders option.
4. In the Containing text field, enter the string for which you are searching, such as `file system tuning`.
5. From the Look in menu, select the network drive (or share) that represents the documentation CD-ROM.

The Search facility will return a list of HTML files for any books and reference pages that contain the search string. As HTML files are

linked to the browser by default, you can then click on the file icon to open the document in the browser.

Any file named TOC . HTM will take you directly to a table of contents entry that contains the search string. Clicking on that entry then takes you to the definitive source. There are many hyperlinks between the online volumes, so any entry point will link you to related files throughout the entire documentation set.

Once in a file, use your browser's Find function, if necessary, to locate instances of the search words.

Comments and Questions

We value your comments and questions on the information in this document. Please mail your comments to us at this address:

`best_practices@zk3.dec.com`

Legal Notice

Compaq, the Compaq logo, NonStop TruCluster, and Tru64 are trademarks of Compaq Information Technologies Group, L.P. in the U.S. and/or other countries. Windows is a trademark of Microsoft Corporation in the U.S. and/or other countries. UNIX is a trademark of The Open Group in the U.S. and/or other countries. All other product names mentioned herein may be trademarks of their respective companies.

Confidential computer software. Valid license from Compaq required for possession, use, or copying. Consistent with FAR 12.211 and 12.212, Commercial Computer Software, Computer Software Documentation, and Technical Data for Commercial Items are licensed to the U.S. Government under vendor's standard commercial license.

Compaq shall not be liable for technical or editorial errors or omissions contained herein. The information in this document is provided "as is" without warranty of any kind and is subject to change without notice. The warranties for Compaq products are set forth in the express limited warranty statements accompanying such products. Nothing herein should be construed as constituting an additional warranty.