Introduction

The purpose of dtSearch is to help you to quickly find the information you need from hundreds or thousands of documents on your PC or on a network.   Using dtSearch, you can sift through megabytes of documents in just a few seconds.

dtSearch is able to perform searches very quickly because it uses an "index" of your documents that stores the location of the words in each document.   Once dtSearch has built an index, searches are nearly instantaneous.   Since you will sometimes want to search documents that you have not indexed, dtSearch can also search without an index -- it just takes longer.

A single document index can hold information on up to 15,000 documents, and there is no limit on the number of indexes you can create.   A single search request can scan multiple directories, disk drives and document indexes.   You can search for:

*   Combinations of words, such as "apple sauce and (pear or grape),"

*   Words located near other words, such as "apple sauce w/5 pear,"

*   Words located in a specific segment of a document, such as "@ADDRESS contains oak drive," and

*   Words that match "fuzzy" specifications, such as "appl*," which would match apple, application, apply, etc.

After you have done a search, you can display retrieved documents on the screen, cut and paste text into a built-in notepad editor, print a "search report" listing all hits found with a few lines of context, or edit a retrieved document using your word processor -- all from within dtSearch.

dtSearch can search, index, and display documents in the following formats:

*   Ami Pro
*   ASCII or DOS Text
*   Microsoft Rich Text Format
*   Microsoft Word through version 5.5
*   Microsoft Word for Windows through version 2
*   Microsoft Works
*   Multimate Advantage II
*   Multimate version 4
*   WordPerfect 4.2, 5.0, and 5.1
*   WordPerfect for Windows 5.1 and 5.2
*   WordStar through version 6
*   WordStar 2000

This manual covers both dtSearch for DOS and dtSearch for Windows.   As much as possible,

the menu options and dialog boxes in dtSearch for DOS and dtSearch for Windows are the same. dtSearch for DOS and dtSearch for Windows use exactly the same file formats, so you can use the same indexes and setup files for both versions.

For information about technical support and purchasing site licenses for dtSearch, please see the Help menu.

System Requirements

dtSearch for Windows requires Microsoft Windows version 3.1 or later and a hard disk. dtSearch for Windows will not run under Windows 3.0.

dtSearch for DOS requires DOS version 3.3 or later and a hard disk. dtSearch for DOS will run with as little as 384k of free memory, but at least 512k is recommended for best operation. When running dtSearch in low memory conditions, you may be unable to perform certain types of complex searches.

If you are running dtSearch in low memory conditions, you should use either the /LM1 switch ("low memory mode") or the /LM2 switch ("very low memory mode").   These switches reduce the amount of memory dtSearch needs at the expense of a small reduction in speed.   If you have extended memory, you can use the /EXT switch to mitigate the reduction in speed. Example: To run dtSearch in low memory mode, using extended memory, enter the following command at the DOS prompt:

DTSEARCH /LM1 /EXT

Quick Start -- Overview

This section of the manual is intended to help you get started using dtSearch (either the DOS or the Windows version). It explains very briefly how to search with and without a document index and how to build an index. Each of these subjects is covered in more detail in the rest of the manual.

Before you begin, you should install dtSearch on your hard disk. You should also have some documents on your hard disk to index and search.

dtSearch can perform three types of searches: index, unindexed, and combination:

* An index search uses a document index to quickly identify documents that satisfy a search request. A document index is a type of database thatdtSearch builds from a collection of documents. The database tells dtSearch where each word appears in each document, so that dtSearch can find documents containing a particular word or combination of words very quickly.

* An unindexed search reads each file to be searched and checks whether it satisfies a search request. Unindexed searches are much slower than index searches.

* A combination search is a search that combines an index search with an unindexed search.

<p align="center">Using menus, dialog boxes and help</p>

When you start dtSearch, you will see a menu bar at the top of the screen and a line at the bottom of the screen. The menu bar at the top of the screen lists: File, Search, Index, Window, Options, Help. Each of these is the name of a menu. To access a menu, move the cursor to the one you want and press ENTER or click on it with the mouse. A "pull-down" menu will appear below the menu bar at the top of the screen. To select an item from the menu, move the cursor to the one you want and press ENTER or click on it with the mouse. As you move the cursor to each option in a menu, the line at the bottom of the screen will briefly describe what the menu option does.

If you are viewing a document or search results, you can get to the main menu in any of the following ways:

* Press F10.

* Click on the main menu with the mouse.

* Press ALT + the first letter of any of the menu options (for example, ALT-F to get into the File menu).

Most actions in dtSearch involve a dialog box, which is simply a box that appears on the screen listing information dtSearch needs in order to perform an action. Dialog boxes are

explained in more detail below.   For now, here is all you need to know to use dialog boxes in dtSearch (both the DOS and Windows versions):

 *   If you have a mouse, you can select anything in a dialog box by clicking on it with the mouse.

*   To select or unselect something using the keyboard, press SPACEBAR.

*   To move to the next item in a dialog box, press TAB.   To move back to the previous item press Shift-TAB.

*   If an item in a dialog box has a highlighted letter in it, you can press ALT + the letter to get to that item quickly.

*   In a list of options, use the arrow keys to move the cursor.

*   Press ESCAPE (or choose the Cancel button) to get out of a dialog box without doing anything.

*   Choose the OK button to do whatever the dialog box does.

   To get help, just press F1 and use the cursor keys to move around the help screen that appears. See the manual section on help for more information.

Quick Start -- Unindexed Search

1. Choose Search in the main menu.

2. Choose Unindexed Search.   The "Unindexed Search" dialog box will appear.   This dialog box allows you to specify what you want to search for and where you want to search.

3. Choose Search Request to enter your search request.   A search request consists of the words or phrases you want to search for, connected by:

    AND   both words must be present
    OR   at least one of the words must be present
    NOT   the next word must not be present (use with AND or OR)
    W/5   the words must occur not more than 5 words apart (you can use other
                numbers, such as W/10, W/20, etc.)

    Examples:
                apple and pear
                apple w/5 pear
                apple sauce w/5 grape juice
                apple and (pear w/5 banana)
                apple and not pear

4. Choose the Select Directories button to select the directories you want to search.   A diagram of all of the directories on the current disk drive will appear.   To select a directory, press SPACEBAR or click on it with the mouse.   To select a directory and its subdirectories, press the plus ("+") key or double-click it with the mouse.   To see another disk drive, press CTRL + the letter of the drive you want, or use the mouse to click on the drive letter in the list of drives next to the directory tree.   After you are done selecting directories, choose OK to save your selections.

5. Choose Filename Filters to enter filters selecting the documents you want to search.   (If you do not enter a filter, dtSearch will search all of the files in the directories you selected.) Type in the filters with spaces separating them.   Example: to select all files whose names end in DOC or TXT, enter

            *.DOC   *.TXT

6. Choose OK to start the search.

Quick Start -- Viewing Search Results

1. After a search is complete, a short menu will appear listing options for sorting search results (sorted by name, sorted by number of hits, unsorted, etc.). Pick one of the options, and the results of your search will appear in a window.

2. To view a document, move the cursor to the document you want and press SPACEBAR or ENTER, or double-click with the mouse on the name of the document. The document will appear in another window, overlaying the first.

3. To see the hits in a retrieved document, press F3. (In dtSearch for Windows, you can also press the Hit button.)

4. To close a window displaying a document or search results, press ESCAPE.

Quick Start -- Indexing Documents

First, create an index:

1. Choose Index in the main menu and then choose choose Create Index (Basic) in the Index menu.

2. Enter the name of the index you want to create.

3. Choose OK to create the index.

Next, add documents to the index:

1. Choose Index in the main menu and then choose Add Documents to Index in the Index menu.

2. In the Select Index box, move the cursor to the index you want to add the documents to.

3. Choose Select Directories to select the directories containing the files you want to index. The directory selection box that appears works just like the one described above in "Searching without an index."

4. Under Filename Filters, enter filters selecting the documents you want to index.   Type in the filters with spaces between them.   Example: to select all files whose names end in DOC or TXT, enter

        *.DOC *.TXT

    If you do not enter a filter, all of the files in the selected directories will be indexed.

5. Under Exclude Filters, you can enter filters for documents you do not want to index.

6. Choose OK to start adding documents to the index.

Quick Start -- Index Search

1. Choose Search in the main menu.

2. Choose Index Search.

3. Under Search Request, enter your search request.

4. In the Indexes to Search box, check off the indexes you want to search.

5. Choose OK to start your search.

6. See "<u>Viewing Search Results</u>," above.

Help on Help

When you are in a menu, a line of text at the bottom of the screen will briefly explain the purpose of each menu option as you move the cursor to it.

If you need more information about a dtSearch feature, you can access the hypertext help system at any time by pressing the F1 key or by choosing Help from the main menu. The help system provides a comprehensive manual, with an index and table of contents, that explains all of the features of dtSearch.

When you press F1, an explanation of the current function or menu option will appear. You can use the cursor keys to scroll through the help message.

The help index is a list, in alphabetical order, of all of the help topics. To see the help index, choose Index from the Help menu. The table of contents is like the index except that it is organized like the table of contents of a book. To get into the table of contents, choose Contents in the Help menu.

In the index and table of contents, press TAB to see a highlighted bar marking the currently selected topic. To move the bar, use the TAB key. Press ENTER or click with the mouse to see the selected topic. If a topic contains highlighted words, these are hypertext links to other topics. To use a hypertext link, press TAB to move the cursor to the highlighted word and press ENTER, or click on the highlighted word with the mouse.

At the top of the help screen you will see a button bar listing the following options:

Contents   View help table of contents
Search   Search for a topic by keyword.
Back   Go back to a topic you were viewing earlier.
History   View list of topics you previously viewed.
<<   Go to the previous topic in the help file.
>>   Go to the next topic in the help file.

What is a Document Index?

A document index is a database that stores the locations of all of the words in a group of documents, except for <u>noise</u> words such as "but" and "if." Once you have built an index for a group of documents, dtSearch can use it to perform very fast index searches on those documents. A document index is usually about one fourth the size of the original documents, although this may vary considerably depending on the number and kinds of documents in the index.

To build an index of a group of documents:

1. Choose <u>Create Index</u> in the Index menu to create an empty index, and

2. Choose <u>Add Documents to Index</u> in the Index menu to add documents to the index.

Index Menu

Choose Index in the main menu to get into the Index menu.   This menu lists options to

* create an <u>index</u>,
* create an index using advanced options,
* add documents to an index,
* compress an index,
* create a batch script (DOS version only),
* rename, copy, delete, or recognize an index,
* display information about an index,
* verify that an index is not damaged,
* list the words in an index, and
* create or change index libraries.

Creating an Index

There are two ways to create an index in dtSearch: a "basic" version and an "advanced" version.

Create Index (Basic)

Choose Create Index (Basic) in the Index menu to create a new index. A dialog box will appear containing a single space to fill in for the name of the index.   Enter any combination of letters, numbers or punctuation up to 16 letters long.   Choose OK to create the index.

If you "create" an index that already exists, you will clear the previously existing index (the documents will, of course, be unaffected).   dtSearch will ask you to confirm that you really want to do this.

Create Index (Advanced)

Choose Create Index (Advanced) in the Index menu if you want to use the advanced options listed below:

Path
> This allows you to specify the directory where dtSearch will store the index.   If you leave this blank, dtSearch will create the index in a subdirectory of the dtSearch directory.   If you enter a directory name, the name should be different for each index.   dtSearch will create a new directory for the index using the name that you supply.   (The path does not have to be a subdirectory of your dtSearch directory.)

Store text with index
> Set this checkbox if you want to create an archive index, which contains the text of indexed documents in compressed form.
> (See "Archive Indexes," below, for additional information on this option.)

Case sensitive index
> Set this checkbox if you want dtSearch to take capitalization into account in indexing words. In a case sensitive index, "APPLE," "Apple," and "apple" would be three different words. For most users, this would be a very bad idea since one would generally like to retrieve a documentcontaining "Apple" in a search for "apple."   This option is useful mainly for programmers who want to index case-sensitive source code.

Accent sensitive index
> Set this checkbox if you want dtSearch to take accents into account in indexing words.   In an accent sensitive index, "eclair" and "é clair" are two different words.   Again, for most users this is not a good idea, since this option increases the chance that you will miss retrieving a document because an accent was left out of one letter.   In an accent insensitive index, accents are stripped from letters according to the rules set up in your dtSearch alphabet file.   See the manual section on the dtSearch ALPHABET utility for more

information on this feature.

Adding Documents to an Index

To add documents to an index, choose Add Documents to Index in the Index menu. The Add Documents to Index dialog box will appear. In the upper left corner there will be a list of the indexes you have created. Pick the index you want to use from this list. Below is a brief summary of the options in the Add Documents to Index dialog box. These options are discussed in more detail in the rest of this chapter.

Select Directories

To select directories to be indexed, choose the Select Directories button. The "Select Directories" dialog box will pop up. Check off the directories you want to index and choose OK to save your selections. The directories you selected will be displayed in the Add Documents to Index dialog box.

Filename Filters

Under Filename Filters, enter file name filters (e.g., *.DOC, *.TXT, etc.) to use to select documents to add. If you leave this field blank, dtSearch will index all of the files in the directories you selected.

Under Exclude Filters, enter filters for any files you do not want to include in the index.

Compress Index

Check this box if you want dtSearch to compress the index after adding documents. Compressing an index can take a while, especially with verylarge indexes, but it makes searches much faster. You can also compress an index using the Compress Index option in the Index menu.

Reindex Changed Files

Check this box if the index already contains some documents, and you want dtSearch to reindex any documents that have been changed.

Clear Index

Check this box if you want dtSearch to "clear" the index before indexing. "Clearing" an index is essentially the same as re-creating it. All information in the index will be erased.

When you are ready to begin indexing, choose OK.

Notes:

1. In most cases, you will not have to worry about the file format of the documents being indexed because dtSearch will detect the format of each document automatically. However, some older word processor formats cannot be detected automatically. WordPerfect 4.2 and WordStar versions before version 4.0 fall into this category. To tell dtSearch how to recognize such documents, choose File Types in the Options menu. (See the section on "File Types" in the "Options" chapter for more information about this feature.)

2.   If you are indexing documents stored on floppy disks, you may find it useful to store the documents on each disk in a subdirectory named after the disk.   For example, if you have disks labelled "SMITH" and "JONES," move the documents on the SMITH disk into a directory called "SMITH," and move the documents on the JONES disk into a directory called "JONES." This will help you to locate the documents after a search.   You can see which disk has the documents you want by looking at the directory name in the search results window.

Selecting Directories to Index

   The Select Directories to Index dialog box allows you to pick the directories you want dtSearch to index from a list of all of the directories on your computer.   The left side of the dialog box displays all of the directories on one disk drive, with a check box next to each directory name.   The right side of the dialog box lists all of the disk drives you can access.

*	To select a directory, click on it with the mouse, or move the cursor to it and press SPACEBAR.

*	To select a directory and its subdirectories, double-click it with the mouse, or move the cursor to it and press + (the plus sign).

*	To change disk drives, click on the drive letter with the mouse, or hold down the CTRL key and press the letter of the drive you want (for example, CTRL-D to switch to drive D).

*	To clear all selections for the current drive, choose the Clear Drive button. To clear all selections for all drives, choose the Clear All button.

*	To update the list of directories for a drive, choose the Reread Drive button. Reading the list of directories for a drive can be time-consuming. To save time, dtSearch keeps a copy of the directory tree for each drive and only updates it when you tell it to (by choosing this button). You should do this whenever you create a new directory and want to be able to index documents in that directory.

When you are done selecting directories, choose OK to save your selections.

Filename Filters

A filename filter is a pattern, like *.*, *.DOC, or FILE??10.DAT, that you can use to tell dtSearch which files you want it to search or index in a directory.   For example, if you have a directory of word processing files, and want to search all of the files beginning with SMITH and having the extension DOC, you would use the filter SMITH*.DOC.

A "?" matches any single character, so SMITH?.DOC would match SMITH1.DOC, but not SMITH123.DOC.

An asterisk ("*") in a file name filter matches any number of characters, so SMITH*.DOC would match SMITH001.DOC, SMITHAAA.DOC, etc.

To use more than one filter, just list the filters, separated by spaces.   Example:

   SMITH*.DOC   JONES*.DOC   *.DAT

If you do not specify a filename filter, dtSearch will index all of the files in the directories selected.

"Exclude" filters work the same as ordinary filters.   They just specify files that you do not want to include.

Compressing an Index

Compressing an index does two things: (1) it removes obsolete information about documents that have been reindexed, and (2) it reorganizes an index for faster searching.   The major disadvantage of compressing an index is that it can take a long time, since dtSearch rebuilds the entire index when it compresses it.

There are two ways to compress an index.

* First, you can tell dtSearch to compress an index after adding documents to it.   To do this, check the Compress Index option in the Add Documents to Index dialog box.

* Second, you can choose Compress Index in the Index menu, select the index you want to compress, and choose OK.

When dtSearch is compressing an index, you can halt compression by pressing the Cancel button.   When you halt compression, dtSearch will restore the index to its uncompressed state.

Archive Indexes

Usually, when you index a group of documents you will want to keep the text of the documents separate from the index.   However, dtSearch can build an index of a group of documents that contains, as part of the index, a copy of the text of the documents indexed.   The text is stored in compressed form.   This means that you can index the documents, remove them from your hard disk, and still search and browse the text that you indexed.

An index that contains a copy of the text of the indexed documents is called an "archive" index.   To create an archive index, choose Create Index (Advanced) in the Index menu and check the Store text with index checkbox.

Note: An archive index does not compress and store the actual documents indexed.   Instead, dtSearch extracts a copy of the text from each document and stores that text in the index.   Thus, if you added a WordPerfect file called "SMITH.DOC" to an archive index, the text of SMITH.DOC would be stored in the index, but you could not extract SMITH.DOC itself from the index.   SMITH.DOC would remain unchanged on your hard disk.

Index Capacity

A document index can contain up to 15,000 documents, each containing up to 64,000 words. If a file being indexed exceeds 64,000 words (about 300 double-spaced pages) dtSearch will display a message telling you that the file is too long to be indexed in its entirety.

If you try to add more than 15,000 documents to an index, you will get an "Index is Full" message.   However, you will still be able to reindex documents that are already in the index. When dtSearch reindexes a document that is already in the index, it treats the document as a new document and marks the old version of the document in the index as "obsolete."   When you compress an index, obsolete documents are removed. If the total number of documents, including obsolete documents, exceeds 30,000, then you will have to compress the index before you can update it.

An <u>index library</u> is a collection of up to 25 indexes.   Most people will only need a few indexes and so will not have to learn about index libraries.   By default, dtSearch uses an index library called "IXLIB.ILB".   If you need touse more than 25 indexes, then you can create additional index libraries.   See the chapter on "Working with Indexes" for information about how to do this.

Indexing Binary Files

When dtSearch builds an index of a group of files, it automatically detects and skips "binary" files such as executable programs and data files that do not contain text.   If a file uses a word processor format that dtSearch does not recognize, dtSearch may classify it as "binary."

If dtSearch finds any binary files during an indexing job, dtSearch will display a message at the end of the job indicating the number of binary files.   The file INDEXLOG.DAT (in your dtSearch directory) will list the files.   INDEXLOG.DAT is re-written each time an index is updated, so binary files from previous indexing jobs will not be listed. If you are using batch mode indexing, the .LOG file created from your script will list the binary files.

To tell dtSearch not to skip binary files, choose Preferences from the Options menu and check the Index binary files check box.

Deleting an Index

Deleting an index does not affect the original documents.   It just removes the index from your system.   To delete an index, choose Delete Index from the Index menu, select the index to delete, and choose OK. dtSearch will ask you to confirm that you really want to delete the index.

Renaming an Index

To rename an index,

*   choose Rename Index from the Index menu,

*   select the index to be renamed,

*   enter the new name for the index, and

*   choose OK.

Note that the name of the directory in which the index is stored will not be affected.

Copying an Index

To copy an index,

*   choose Copy Index from the Index menu,

*   select the index to be copied in the Copy Index dialog box, and

*   enter a new name and directory for the copy.   The name and directory of the copy must be different from the original index.

Like the directory specified in "Create Index (Advanced)," the directory that you copy an index to should not already exist.   If the directory that you specify already contains an index, dtSearch will ask you to confirm that you want the new index to overwrite the old index. (A directory can only contain one index.)

Recognizing an Existing Index

Although dtSearch provides a way to copy indexes, you may in some cases wish to copy indexes using another program and then use dtSearch to search the indexes.   For example, if someone created an index and gave you a copy, you might want to just copy the disk or disks using the DOS copy command.   However, if you then tried to search that index with dtSearch, the index that you copied would not appear in the "Indexes to Search" list because your copy of dtSearch would not know about the index.

The Recognize Index function solves this problem.   To recognize an index, select "Recognize Index" in the Index Menu.   A dialog box will appear listing the files in the current directory and other directories you can select.   Use the dialog box to locate one of the files in the index you want to recognize and choose OK.   (dtSearch index files have names like "INDEX_R.IX" and "INDEX_F.IX".   They always begin with "INDEX_" and end with ".IX".)   dtSearch will look in the directory for the index, extract the information it needs to "recognize" the index, and add the index to the list of indexes in the current index library.

Index Information

To get information about an index, choose Index Information in the Index menu.   A dialog box will appear displaying the following information about the currently selected index:

*   When it was created
*   When it was last modified or compressed
*   How much disk space it occupies
*   How many words it contains
*   How many documents it contains

The Index Information screen also lists the number of "Obsolete" documents.   When dtSearch reindexes a document that is already in the index, it treats the document as a new document and marks the old version of the document in the index as "obsolete."   When you compress an index, obsolete documents are removed.

Verifying an Index

To verify that an index is in good condition, choose Verify Index in the Index menu.   As dtSearch examines the index, it will list every word, filename, and directory name in the index. When dtSearch is done verifying the index, it will tell you whether the index has been damaged.

List Words in Index

Choose List Words in Index in the Index menu to generate a list of all of the words in an index.   Select the index you want to list and choose OK.   A second dialog box will appear asking for the name of a file to store the words in.   Enter the name of a file and choose OK or press ENTER.

Index Libraries

An index library is a collection of up to 25 indexes.   dtSearch uses index libraries to record the names and locations of the document indexes that you create.   When you select indexes to search, or pick an index to update, compress, etc., the list of indexes displayed comes from the current index library.

If you do not need to use more than 25 indexes, you do not need to worry about index libraries.   (25 indexes will hold a total of up to 375,000 documents.)   dtSearch starts out with a library called "IXLIB.ILB" that will hold any indexes that you create.

If you need to use more than 25 indexes, choose Create Library in the Index menu to create a new library.   A dialog box will appear allowing you to enter the name of the new library.   Enter a name for the new library and choose OK.   (The name of the library must end in ".ILB".   If the name you enter does not end in ".ILB", dtSearch will automatically add ".ILB" to thename.)   When you create a library, that library becomes your current library.   The new library will be empty.   To add indexes to the library, use Create Index, Copy Index or Recognize Index.

Use Change Library in the Index menu to change the current index library.   When you select Change Library, a dialog box will appear containing the name of the current index library.   To see the names of all of the index libraries you have created, enter "*.ILB" in the dialog box and press ENTER.

Search Requests (Overview)

This chapter of the manual describes the rules for composing search requests in dtSearch. The next chapter describes how to perform index and unindexed searches.

A search request consists of a group of words, phrases, or <u>macros</u> linked by connectors such as "AND" and "OR" that indicate the relationship between them.

If you use more than one connector, you should use parentheses to indicate precisely what you want to search for. For example,

apple and pear or orange

could mean "(apple and pear) or orange," or it could mean "apple and (pear or orange)." Here are some more examples:

* apple <u>and</u> pear: both words must be present.
* apple <u>or</u> pear: either word can be present.
* apple <u>w/5</u> pear: apple must occur within 5 words of pear.
* apple and <u>not</u> pear: only apple must be present.
* @addr <u>contains</u> 123: the segment @addr must contain 123.
* <u>xname</u> "SMITH*.DOC": filename matches SMITH*.DOC.
* <u>xdate</u> is 11/92: file was modified in November 1992.
* apple sauce: the <u>phrase</u> "apple sauce" must be present.
* apple w/5 <u>xfirstword</u>: "apple" must occur in the first five words.
* apple w/5 <u>xlastword</u>: "apple" must occur in the last five words.

<u>Noise</u> words, such as "if" and "the" may not be included in searches. Your search terms may include <u>wildcards</u> such as ? and *.

Search Terms

A search term is simply one of the words in your search request.

A search term can contain the "wildcard" characters "*" and "?".   A "?" in a word matches any single character, and a "*" matches any number of characters.   The wildcard characters can be in any position in a word.   For example:

    appl*   would match apple, application, etc.
    cipl   would match principle, participle, etc.

Use of the "*" wildcard character near the beginning of a word will slow searches somewhat.

Punctuation inside of a search word is treated as a space.   Thus, "can't" would be treated as "can t," a phrase consisting of two words: "can" and "t".   "1843(a)(2)(ii)" would become "1843 a 2 ii" (four words).   (You can customize the way dtSearch handles punctuation in text by using the dtSearch ALPHABET utility.)

dtSearch uses two built in search words to mark the beginning and end of a file -- XFIRSTWORD and XLASTWORD.   The terms are useful if you want to limit a search to the beginning or end of a file.   For example, "apple w/10 XLASTWORD" would search for the word "apple" within 10 words of the end of a document.

Phrase Searches

A search term can consist of several words, such as

first class mail

A search for this phrase would retrieve only files containing the words "first," "class," and "mail" in exactly the order specified.   Note that no quotation marks are used to group the words in the phrase.

If a phrase contains a noise word, then you cannot search for it as a phrase, since the noise word will not be found.   For example, you could notsearch for the phrase statue of liberty, since the noise word "of" will not be in the index.   Instead, use the W/N connector to search for statue w/2 liberty.

Noise Words

A "noise" word is a word such as the or if that is so common that it is not useful in searches. To save space and time, such words are ignored in index searches. You can modify the list of words defined as noise words by editing the file "DTSEARCH.NOI." You can use the Edit File function (in the File Menu) to edit DTSEARCH.NOI, or you can use your word processor. If you use your word processor, make sure that you save the file as a DOS text file (with the name name, DTSEARCH.NOI, in the directory where dtSearch is installed) so that dtSearch can read it.

The words in DTSEARCH.NOI do not have to be in any particular order, and can include "wild card" characters such as * and ?. However, noise words may not begin with wild card characters.

Search connectors, such as AND, OR, etc., should always be listed as noise words since it is not possible to search for them.

When you create an index, the index will store its own copy of the noise word list. Changes you make to DTSEARCH.NOI will be reflected in future indexes you create but will not affect existing indexes.

AND Connector

   Use the AND connector in a search request to connect two expressions, both of which must be found in any document retrieved.   For example:

*   apple and pear would retrieve any document that contained both words.

*   (apple or banana) and (pear w/5 grape) would retrieve any document that (1) contained either the word apple or the word banana, and (2) contained the word pear within 5 words of the word grape.

OR Connector

Use the OR connector in a search request to connect two expressions, at least one of which must be found in any document retrieved.   For example, "apple or pear" would retrieve any document that contained apple, pear, or both words.

W/N Connector

Use the W/N connector in a search request to specify that one word or phrase must occur within N words of the other.   For example, "apple w/5 pear" would retrieve any document that contained the word apple within 5 words of pear.

The following are some examples of search requests using the W/N connector:

*   (apple or pear) w/5 banana: either apple or pear must occur within 5 words of "banana."

*   (apple w/5 banana) w/10 pear: apple must occur within 5 words of banana, and pear must occur within 10 words of both.

*   (apple and banana) w/10 pear: both apple and banana must occur within 10 words of pear.

Some types of complex expressions using the W/N connector will produce ambiguous results and should not be used.   In general, at least one of the two expressions connected by W/N must be a single word or phrase or a group of words and phrases connected by the "OR" connector. For example:

*   (apple and banana) w/10 (pear or grape):   both apple and banana must occur within 10 words of either pear or grape.

*   (apple and banana) w/10 orange tree: both apple and banana must occur within 10 words of the phrase "orange tree."

The following are examples of ambiguous search requests:

*   (apple and banana) w/10 (pear and grape)

*   (apple w/10 banana) w/10 (pear and grape)

If you enter an ambiguous search request, dtSearch will display a message warning you of the error.

NOT and NOT W/N

Use NOT in front of any search expression to reverse its meaning. This allows you to exclude documents from a search.   For example,

apple sauce and not pear

would retrieve documents containing the phrase "apple sauce" and not containing the word "pear."   Note the need for an AND to connect the NOT to the rest of the search request.   NOT standing alone can be the start of a search request.   For example,

not pear

would retrieve all documents that did not contain the word "pear."   If NOT is not the first connector in a request, you need to use either AND or OR with NOT.   Here are two more examples:

apple or not pear: retrieve documents that either (1) contain the word "apple," or (2) do not contain the word "pear."

not (apple w/5 pear):   retrieve documents that do not contain the word "apple" within 5 words of the word "pear."

The NOT W/ ("not within") operator allows you to search for a word or phrase not in association with another word or phrase.   For example,

apple not w/20 pear

would search for instances of the word "apple" more than 20 words away from the word "pear." It will also retrieve files containing "apple" with no instances of "pear."

Unlike the W/ operator, NOT W/ is not symmetrical.   That is, "apple NOT W/20 pear" is not the same as "pear NOT w/20 apple."   In the "apple NOT W/20 pear" request, dtSearch searches for the word "apple" and excludes cases where "apple" is too close to the word "pear."   In the "pear NOT W/20 apple" request, dtSearch searches for the word "pear" and excludes cases where "pear" is too close to "apple."

Search Macros

Macros can be useful for:

*   abbreviating long names or phrases that you use frequently, or
*   abbreviating segment definitions in segment searches.

A macro may contain anything that can be part of a search request.   A macro has two parts: a name, which you use to refer to the macro in search requests, and the expansion, which is what the macro is expanded to.   For example, if you defined the macro "@IRC" to mean "internal revenue code," and then searched for "standard deduction w/3 @IRC," dtSearch would search for "standard deduction w/3 internal revenue code."

A macro name must begin with the "@" character (shift-2).   This is how dtSearch distinguishes macro names from ordinary words in a search request.

Choose Macros in the Options menu to create or edit a macro.   A dialog box will appear listing all of the macros you have created. To create a new macro, move the cursor to "<add new item>" and choose Edit.   Move the cursor to an existing macro and select Edit to edit the macro.

When you choose Edit, a dialog box will appear with two spaces in it: one for the "Name" of the macro, and one for the "Expansion."   Under Name, enter a single word (8 letters or less, beginning with "@") that you will use for this macro.   Under Expansion, enter the meaning you want to assign to this macro.   Choose OK to save your changes.

Segment Searches

A segment search is a search request that must be satisfied within a certain defined segment of a document.   The segment is defined by words or phrases at the beginning and end of the segment.

The form of a segment definition is: beginning TO end, where beginning is the word or phrase that defines the start of the segment, and end is the word or phrase that defines the end of the segment.   The only connector allowed in the beginning and end expressions in a segment definition is OR.   Examples:

name to address
   the segment begins with the word "name" and ends with the word "address."

name to (address or xlastword)
   the segment begins with the word "name" and ends with the word "address" or the end of the file.

To search for an expression within a segment, use the CONTAINS connector.   The expression in front of CONTAINS is the segment definition, and the expression following CONTAINS is what you are searching for.   Examples:

*   (name to address) contains john smith

*   (address to phone) contains (oak w/10 lane)

If a document contains more than one instance of a segment, dtSearch will search each instance separately for text matching the search request.

Segment searches work well with documents that are broken into standardized segments. For example, a group of employee records might be in standardized documents formatted like this:

   NAME: John Doe
   ADDRESS: 123 Oak Lane
   PHONE NUMBER: 555-1234
   SOCIAL SECURITY NUMBER 000-00-0000
   etc.

You can name segments using macros.   In the above example, you could use the following macros:

@name: (name to address)
@addr: (address to phone number)
@phone: (phone number to social security number)

Then you could do a segment search like this:

    (@name contains John Doe) and (@addr contains Oak)

The words in a segment definition ("name," "address," etc.) will not appear as hits after a search.   Only the words being searched for in the segments ("John Doe," "Oak") will be highlighted.

Date and Filename Searches

To search for a file with a specific name, use XNAME. For example, if you want to find a file called FILENAME.EXT, search for:

xname "filename.ext"

The filename, like other search terms, can include wildcard characters ("*.TXT," "SMITH??.*," etc.) Unlike other search terms, a filename must be in quotation marks. This enables dtSearch to recognize special characters in the filename (such as the dot) that are treated as spaces in other search words. The filename cannot include a directory name or disk drive.

To search for a file that was last modified on, before, or after a certain date, use the XDATE search command, like this:

xdate is January 1, 1991
xdate before January 1, 1991
xdate after January 1, 1991

dtSearch can recognize a variety of date formats, such as: 1/1/91; 1/91; January 1, 1991; and Jan 1 91 (two-digit years are assumed to be in the twentieth century).

You can combine name and date searches with other types of searches using the usual search connectors. For example:

(xname "*.doc") and (xdate after 1/1/91) and (apple w/5 pear)

This would retrieve documents whose names end in .DOC, that were last modified after January 1, 1991, and that contain the word apple within 5 words of the word pear.

Search Menu

Choose Search in the main menu to get into the Search menu.   The Search menu offers three ways to search for documents:

*   An <u>index search</u>, which searches using one or more document indexes.

*   An <u>unindexed search</u>, which directly searches files in one or more directories.

*   A <u>combination search</u>, which combines an index search with an unindexed search.

The search menu also lists options to view previous search results or previous search reports. dtSearch saves the last ten searches and search reports.   To view an old search or search report, choose Previous Search or Previous Search Report in the Search Menu.   dtSearch will list all of the searches it has saved.   Select the one you want to see and choose OK.

Index Searches

An index search is the fastest way to search for documents. Before you can do an index search, you must first build an index. See the chapter on "Indexing Documents" for more information. To start an index search, choose Search in the main menu and then choose Index Search in the Search menu.

Under <u>Search Request</u>, enter your search request. The last request you entered will be displayed so you can reuse it if you like.

In the Indexes to Search box, select the indexes you want to search. You can search any or all of the indexes displayed.

Choose OK to start the search.

Unindexed Searches

In an unindexed search, dtSearch directly searches every file that you ask it to search, looking for documents that match your search request. Unindexed searches are much slower than index searches.

To start an unindexed search, choose Unindexed Search from the Search menu. The Unindexed Search dialog box will appear.

Under Search Request, enter your search request. The last request you entered will be displayed so you can reuse it if you like.

The dialog box will also contain a list of the directories that will be searched. To select directories to be searched, choose the Select Directories button. The "Select Directories" dialog box will pop up. Check off the directories you want to index and choose OK to save your selections. (This dialog box is described in more detail below.)

Under Filename Filters, enter file name filters (e.g., *.DOC, *.TXT, etc.) to use to select documents to search. If you leave Filename Filters blank, dtSearch will search all of the documents in the selected directories. Under Exclude Filters, enter filters for any files you do not want to include in the search. Filename filters are described in more detail in the chapter on "Indexing Documents."

Choose OK to start the search.

Combination Searches

A combination search is a search that combines an index search with an unindexed search. The Combination Search dialog box contains all of the elements in the Index Search and Unindexed Search dialog boxes.

Under <u>Search Request</u>, enter your search request.

In the Indexes to Search box, check off the indexes you want to search.

The dialog box will also contain a list of the directories that will be searched in the unindexed portion of the search.   To select directories to besearched, choose the <u>Select Directories</u> button. The "Select Directories" dialog box will pop up.   Check off the directories you want to index and choose OK to save your selections. (This dialog box is described in more detail below.)

Under <u>Filename Filters,</u> enter file name filters (e.g., *.DOC, *.TXT, etc.) to use to select documents to search.   If you leave Filename Filters blank, dtSearch will search all of the documents in the selected directories.   Under Exclude Filters, enter filters for any files you do not want to include in the search.   Filename filters are also described in more detail in the chapter on "Indexing Documents."

Choose OK to start the search.

Selecting Directories to Search

The Select Directories to Search dialog box allows you to pick the directories you want dtSearch to search from a list of all of the directories on your computer.   The left side of the dialog box displays all of the directories on one disk drive, with a check box next to each directory name.   The right side of the dialog box lists all of the disk drives you can access.

*   To select a directory, click on it with the mouse, or move the cursor to it and press SPACEBAR.

*   To select a directory and its subdirectories, double-click it with the mouse, or move the cursor to it and press + (the plus sign).

*   To change disk drives, click on the drive letter with the mouse, or hold down the CTRL key and press the letter of the drive you want (for example, CTRL-D to switch to drive D).

*   To clear all selections for the current drive, choose the Clear Drive button.   To clear all selections for all drives, choose the Clear All button.

*   To update the list of directories for a drive, choose the Reread Drive button.   Reading the list of directories for a drive can be time-consuming.   To save time, dtSearch keeps a copy of the directory tree for each drive and only updates it when you tell it to (by choosing this button).   Youshould do this whenever you create a new directory and want to be able to search documents in that directory.

When you are done selecting directories, choose OK to save your selections.

Sorting Search Results

After a search is complete, the "Display Search Results" dialog box will appear, listing several different ways to display the results of your search:

*   Sorted by name, in alphabetical order

*   Sorted by number of hits

*   Sorted by the date of the document

*   Unsorted -- displays documents in the order they were found

Select the way you want to sort your search results and choose OK to display the results of your search.   Choose Cancel to return to the main menu without viewing search results.

The next chapter describes how to view the results of your search.

Viewing Search Results

    After you do a search, a Search Results window will appear listing the documents that were retrieved by your search.   In dtSearch for DOS, a list of function keys will appear at the bottom of the screen when you are in a Search Results window.   These function keys will work in dtSearch for Windows, but dtSearch for Windows also provides a button bar at the top of the Search Results window.

F2	Find	Search the list of files for something. (Note: In a Search Results window, Find searches the list of documents, not the documents themselves.)
F6	Mark	Start marking text to copy to a file.
F7	Copy	Copy marked text to a file.
F8	KWIC	Generate a "KWIC" view of a document listing all hits in the document with a few lines of context.
F9	Local Menu	Pops up the "Local" menu listing all of the things you can do with the window.

The Local Menu

    The <u>Local menu</u> lists things you can do with a search results window:

Resize	Resize the window (DOS Version).
Zoom	Expand the window to the maximum possible size (DOS Version).
Print	Print the list of files retrieved.
Find	See Find, above.
Mark	See Mark, above.
Copy	See Copy, above.
KWIC	See KWIC, above.
Search Report	Generate a search report, listing each hit in each file with a few lines of context.
Search Results Format	Change the way search results are displayed.

Cursor commands for the Search Results window

Top of list	Home,Home,Up
End of list	Home,Home,Dn
Page up	PgUp
Page down	PgDn

Menu and Window Commands

*   To get into the main menu, press F10 or click on the main menu with the mouse.

* To get back to the Search Results window from the main menu or the local menu, press ESCAPE or click on the window with the mouse.

* ESCAPE closes the Search Results window.

* To view one of the documents in the list, move the cursor to it and press SPACEBAR or ENTER or double-click on the document with the mouse. The document you select will appear in a window overlaying the Search Results window.

Viewing a Retrieved Document

When you are viewing a document, you will see a list of function keys (in DOS) or a button bar (in Windows) similar to the one displayed in a Search Results window:

F2	Find	Search the document for a string of text.
F3	Hit	Search the document for the next hit from your search request.
F5	Next	Display the next document retrieved in the search. Shift-F5 displays the previous document retrieved in the search. In Windows, choose the Prev button to do this.
F6	Mark	Start marking text to copy to a file.
F7	Copy	Copy marked text to a file.
F8	Launch	Launch the document. (See the chapter on "Launching Applications" for more information.)
F9	Local Menu	Pops up the "Local" menu listing things you can do with the window.

The Local Menu

The Local menu lists things you can do with a retrieved document:

Resize	Resize the window (DOS Version).
Zoom	Expand the window to the maximum possible size (DOS Version).
Print	Print the document.
Find	See Find, above.
Hit	See Hit, above.
Next	See Next, above.
Previous	Display the previous document retrieved in the search.
Mark	See Mark, above.
Copy	See Copy, above.
Launch	See Launch, above.

Cursor commands

Top of document	Home,Home,Up
End of document	Home,Home,Dn
Beginning of line	Home,Left
End of line	Home,Right or End
Page up	PgUp
Page down	PgDn

Menu and Window Commands

* To get into the main menu, press F10 or click on the main menu with the mouse.

* To get back to this window from the main menu or from the local menu, press ESCAPE or click on the window with the mouse.

* To close this window, press ESCAPE.

* See "<u>Viewing Multiple Windows</u>" for more information on viewing documents and search results in overlapping windows.

Local Menu

When you are viewing or editing a file or viewing search results, a retrieved document, a search report, or a Kwic view, press F9 (or click on the word "Local") to pop up the "Local" menu for the window you are in.   You can also get into the Local menu by choosing "Local" in from the Window menu.

The Local menu lists all of the things you can do with the window you are in.   The Local menu is different for each type of window. For example, the Local menu for a search results window includes an option to generate a search report.   The Local menu for a a retrieved document includes an option to skip to the next document retrieved in the search. In the Local menu, you can move the cursor and select items just as you would in other dtSearch menus.

Search Results Format

Choose Search Results Format in the Local menu in a search results window (or in the Options menu) to modify the format dtSearch uses to display search results.   A dialog box will appear listing all of the items that can be displayed in search results.   Select the ones you want to be displayed and choose OK to save your changes.   The only limitation on your ability to customize search results is that either the name of the retrieved file or its "title" (the first few words in the file) must be displayed.

By default, dtSearch will display, for each file, the number of hits, name, directory, modification date, and title.

Finding Text in a Window

Choose Find (or press F2) to search for any text in a displayed document.   dtSearch will ask you for the text to search for.   Type in the text you want to find and choose OK.   Find is like the search function in your word processor -- you can search for words, spaces, punctuation, etc. Capitalization is ignored.   If you use Find in a Search Results window, it will search the list of filenames, modification dates, etc., as it appears on the screen.

Find starts searching after the line that the cursor is on, so you may wish to move to the top of the document before beginning a search.   Find will bring you to the beginning of the line containing the text searched for.

Finding Hits

After you have done a search and you have a retrieved document on the screen, choose Hit (or press F3) to quickly find the next hit from your search request in the document.   For example, if you had searched for "apple and (pear w/5 banana)," pressing the F3 key while viewing a document would cause dtSearch to locate the next occurrence of one of the words "apple," "pear," or "banana" in the document you are viewing.

Hit will only find words that match a search request.   In the above example, Hit would only find instances of "pear" within five words of "banana."

Kwic View

The "KWIC" ("Key word in context") function will display only the part of a document that contains terms matching your search request.   When you are in a search results window, move the cursor to the name of the document that you want to see and press the F8 key or use the mouse to click on KWIC.   dtSearch will ask how many lines of context you want. This is the number of lines surrounding each hit that you want to see. Enter the number of lines that you want and choose OK.

A window will pop up over the search results window displaying a KWIC view of the document you selected.   You can use most of the same browsingand menu commands in a KWIC window as you can in a retrieved document.   Press F9 to pop up the local menu.

You can also see all of the document by moving the cursor to the name of the document and pressing ENTER or by double-clicking on the document name with the mouse.   In addition, a file displayed in KWIC mode contains highlighted line and page markers to show where in the document the text appeared.   These highlighted markers act as hypertext links into the full text of the document.

For example, suppose that you are viewing a document in KWIC mode and see a block of text with a marker "[Page 10 Line 15]."   If you move the cursor to the marker and press ENTER (or double-click with the mouse), a window displaying the full document will pop up over your KWIC view, positioned to line 15 of page 10.   To return to the KWIC view, press ESCAPE.

Search Reports

A search report lists each hit found in each of the documents retrieved in a search with a few lines of context surrounding it.   It is like a combined KWIC view of every document retrieved in a your search. To create a search report, you must be in a Search Results window.

*   Press F9 to get into the Local Menu and choose Search Report from this menu.

*   The Search Report dialog box will pop up.   In this dialog box, enter the number of lines of context you want surrounding each hit and choose OK.

Preparing a search report may take a while since dtSearch has to scan every document retrieved to get the text to display.   Search report windows use the same commands and function keys as KWIC windows.

Viewing Multiple Windows

In dtSearch, the space between the menu bar at the top of the screen and the bar at the bottom of the screen describing the current menu option is a workspace, like a desktop, that you can use for searching and browsing documents.   As with a desk surface, you can place several documents on the surface and move them around so you can see the one that you want to read. Menus and dialog boxes will pop up over the desktop, but the underlying documents will remain until you remove them.

You can add search results windows, document windows, KWIC views, and search reports to the desktop.

*   Use TAB or the mouse to switch from one window to the next.   (Use SHIFT-TAB to switch back.)

*   To close the window you are in, press ESCAPE.

*   To "cascade" your windows (rearrange them so that they overlap), choose Cascade from the Window menu.

*   To "tile" your windows (rearrange them so that they do not overlap), choose Tile from the Window menu.

Example

For an example of how to use multiple windows in dtSearch, try the following:

*   Do a search, then move the cursor to the name of a document and press SPACEBAR.   The document you selected will appear.

*   Now press TAB.   The search results window will appear, overlaying the document you were viewing.

*   Move the cursor to a different document and press SPACEBAR again.   The new document will appear on top of the search results and the other document.

*   Press TAB repeatedly and each of the three windows will appear on top of the others in turn.

*   Press ALT-W to get into the Window menu and choose Tile.   You will see all of the windows you have created arranged so that they do not overlap.   Press TAB to move among the windows.

*   Press ALT-W again and this time choose Cascade.   Now your windows will be arranged so that they do overlap.   (To move or resize the windows, see below.)

*   Finally, press ESCAPE three times to close each of the windows.

NOTE: Cascade and Tile rearrange only the windows existing on the desktop when these options are selected.   If you add additional windows, you must choose Cascade or Tile again if you want to rearrange the new windows.

Resizing and Moving Windows

    Click on the square in the upper left corner of the window (or press ALT-hyphen, e.g., ALT + the hyphen ("-") key) to pop up the Control menu.   Choose either Move or Size and use the cursor keys to move the window or resize the window.   Choose Maximize to "zoom" the window.

Marking and Copying Text

   To copy a block of text from search results, a retrieved document, a KWIC view, a search report, or a "View File" window:

1.   Choose Mark (F6) to start marking the block of text.   The line under the cursor will be highlighted.

2.   Move the cursor to the end of the block you want to copy and choose Copy (F7).

3.   A dialog box will appear, asking for the name of the file to write the text to.   Enter a filename and choose OK.   dtSearch will copy the marked text to the file you specify.   If the file already exists, dtSearch will ask whether you want to overwrite the file or append the text to it.

4.   You can repeat these steps to copy multiple blocks of text to a file.

   After you have collected text using Mark and Copy, you can edit it using Edit File in the File menu.   Press ALT-F to get into the File menu (you do not have to close the window you are viewing) and choose Edit File.   dtSearch will ask for the name of the file you want to edit. Enter the name of the file you used to store the copied text.   An editor will then pop up allowing you to edit the text you copied.   See "Editing a File" in the "File Menu" chapter for information about editing files using this editor.

   You can switch between the editor and your other windows.   In dtSearch for DOS, use TAB and SHIFT-TAB.   In dtSearch for Windows, the editor is a separate program (the Windows NOTEPAD editor) so use ALT-TAB to switch between the editor and dtSearch.

Printing a File

When you are viewing search results, a retrieved document, a KWIC view, or a search report, you can print the contents of the window you are viewing by choosing Print from the Local menu.   Print will print the entire document, not just what appears on the screen.

When you select Print, the Print dialog box will appear.   The Print dialog box allows you to set page length, width, and margins, headers, footers, and page numbering.

If you want to print to a file instead of to the printer, check the Print to File box.   After you choose OK, dtSearch will ask for the name of the file to print to.

To select the printer to use, choose Printer Setup in the File menu.

Using the Mouse

In dtSearch for Windows, all document windows have the same basic structure.   Surrounding the window is a frame.   When the window is on top, the top of the frame will be blue (if you have a color monitor); otherwise, it will be white.

In the upper left corner, there will be a small square.   Click on this square to activate the standard Windows Control menu, which contains options for closing, moving, resizing, or maximizing the window.

In the upper right corner, there will be a triangle.   Click on this triangle to zoom the window, or to unzoom it if it is zoomed.

On the right edge will be a scroll bar.   Click on the arrows or on the bar itself to scroll up and down in your document.

To resize a window, move the cursor to the bottom or one of the side edges of the window (the cursor will change to a double arrow), hold down the left mouse button and drag.   To move the window, click on the top and drag.

At the top of the window, there will be a button bar listing commonly used functions.   Click on any of these buttons to activate the function indicated.

Click the right mouse button to pop up the local menu listing things you can do with the current window.

Batch Indexing and Searching -- Overview

Batch mode indexing allows you to create, update, and compress a document index by running dtSearch from the DOS command line or from a DOS batch file. Batch mode indexing can be useful if, for example, you want to perform a complex and time-consuming series of tasks every night to update your indexes. Batch mode indexing and searching is available in dtSearch for DOS only.

To set up a batch indexing job, first create a "script" that lists the tasks that you want dtSearch to perform. A script is a text file that lists a series of indexing commands that dtSearch will carry out.

The easiest way to create a script is to use the Create Batch Script option in the Index menu. When you select this option, a dialog box will appear that is almost identical to the "Add Documents to Index" dialog box.

Fill out the box exactly as you would if you were updating an index. See the section on "Adding Documents to an Index" in the "Indexing Documents" chapter for more information about the options in the Create Batch Script dialog box.

When you are done setting up the indexing job, choose OK to create a script. A dialog box will pop up asking for the name of the script to create. Enter a name for the script and choose OK. dtSearch will then store all of the information you have provided (the index to update, the directories to index, etc.) in a script file that you can run later.

To run the script that you created, first exit dtSearch. A batch script cannot be run from the DOS shell option in the File menu. After you are out of dtSearch, type the following at the DOS prompt:

DTSEARCH /SCRIPT MYSCRIPT.JOB

where "MYSCRIPT.JOB" is the name of your script. You should be in the directory where dtSearch is installed when you do this. If you created the script in a different directory, you will need to supply the full pathname of the script, e.g., C:\WHATEVER\MYSCRIPT.JOB. dtSearch will then perform the indexing task you specified.

dtSearch will record any errors encountered during the job in a file called MYSCRIPT.LOG. Errors and informational messages will not be displayed on the screen, since dtSearch assumes that batch jobs will run without someone watching them. After a batch indexing job, you should check the log file to see if any errors occurred.

Batch Scripts

A script file is any text file that dtSearch can read.   You can create a script using the Create Batch Script option in the Index menu, or you can create a script by hand.   Before you try to write your own scripts, you may want to create an example using the Create Batch Script function so you can see what a batch script looks like.   After you create the script, choose View File in the File menu to read it.   Using Edit File, you can easily edit the script to create a new script.

You can also create a script outside of dtSearch.   A script can be ASCII text or it can be in one of the word processor formats that dtSearch recognizes, such as WordPerfect or WordStar. The first line of a script must consist of the words DTSEARCH SCRIPT.

A script consists of a series of "SET" statements that specify the documents to be indexed and the index to use, and commands such as "ADD" and "COMPRESS."   dtSearch ignores any line beginning with a *, so you can include comments in a script.   Here is an example:

```
DTSEARCH SCRIPT
* Create the index
SET INDEXNAME = MyIndex
CREATE
* Add documents from C:\DOCS
SET DOCPATH = C:\DOCS
SET FILTER = *.DOC *.TXT *.WPF
ADD
* Compress the index
COMPRESS
```

This script would (1) create an index called "MyIndex," (2) add to the index documents in the directory C:\DOCS, and (3) compress the index. (You can combine several different indexing and searching operations in a single script.)   To run this script, put it in the file UPDATE.JOB in the dtSearch directory and execute the command:

DTSEARCH /SCRIPT UPDATE.JOB

from the dtSearch directory.   dtSearch will then execute the script, logging any error messages to the file UPDATE.LOG.

Creating an Index (Batch)

To create an index, set up a script like this:

```
DTSEARCH SCRIPT
SET INDEXNAME = MyIndex
SET INDEXPATH = C:\DOCINDEX
CREATE
```

The two SET statements tell the program what you want to call the index and the directory you want to put it into.   The "CREATE" statement tells dtSearch to create the index in the specified directory.

There are three options you can use with CREATE: ARCHIVE, CASE, and ACCENT.

ARCHIVE: Use this option if you want to create an archive index.   This is an index that contains the text of indexed documents, in compressed form.

CASE: Use this option if you want the index to be case-sensitive.

ACCENT: Use this option if you want the index to be accent-sensitive.

To use one or more of these options, simply list them on the same line as the CREATE command:

```
CREATE ARCHIVE CASE
```

WARNING: Please be careful when using CREATE.   If you create an index that already exists, dtSearch will delete the old index and create a new, empty index in its place.   In interactive mode, you will get a warning message before this happens, but in batch mode dtSearch simply assumes that you really want to create a new index.

Adding Documents to an Index (Batch)

To add documents to an index in a batch script, you need to select an index to add to, list the directories to index, and list the file name filters you want to use.

Use "SET DOCPATH =" to tell dtSearch the directory in which the documents are located. If you want to index more than one directory, list the directories with plus signs ("+") separating them, like this:

```
SET DOCPATH = C:\ONE + C:\TWO +
  C:\THREE + C:\FOUR +
  C:\FIVE
```

If the list of directories will take up more than one line, make sure that each line ends in a plus sign so that dtSearch knows to look on the next line for more directories.

To specify file name filters, use "SET FILTER =". Use "SET EXCLUDE =" to specify files that you do not want to index.

After you have provided the information dtSearch needs to index your documents, use "ADD" to add the documents to the index. Example:

```
  DTSEARCH SCRIPT
SET INDEXNAME = MyIndex
  SET DOCPATH = C:\DOCS + C:\DOCS2 + C:\DOCS3
  SET FILTER = *.DOC *.TXT *.WPF
SET EXCLUDE = A*.DOC
  ADD
```

This would add documents from C:\DOCS, C:\DOCS2, and C:\DOCS3 to the index "MyIndex."

The CREATE function needs to know both the name and the directory for an index, and so both the SET INDEXNAME and the SET INDEXPATH must be present to create an index. The ADD function just needs to know which index you want to add documents to, so you can use either the name (SET INDEXNAME) or the path (SET INDEXPATH) to specify the index.

Reindexing (Batch)

The REINDEX command in a script will cause dtSearch to reindex any documents in an index that have been modified since the index was last updated.   This is the batch mode equivalent to the "Reindex changed files" option in the Add Documents to Index dialog box. Example:

    DTSEARCH SCRIPT
    SET INDEXNAME = MyIndex
    REINDEX

Compressing an Index (Batch)

To compress an index, use SET INDEXNAME or SET INDEXPATH to specify the index to compress and then use the COMPRESS command.   Example:

```
DTSEARCH SCRIPT
SET INDEXNAME = MyIndex
COMPRESS
```

Searching an Index (Batch)

The following is an example of a batch script that would perform an indexed search:

```
DTSEARCH SCRIPT
SET REQUEST = apple and pear +
    and banana
SET INDEXES = Index1 + Index2 + Index3
SET SORT = HITS
SET RESULTS = c:\dtsearch\search1.dat
SEARCH
```

SET REQUEST tells dtSearch what you want to search for.   Note that since the request was too long to fit on one line the first line ends in a + to indicate that the request continues on the next line.

SET INDEXES tells dtSearch which indexes you want to search.   If you want to search more than one index, be sure to use a + to separate the names of the indexes you want to search.

Use SET SORT to specify how the search results will be sorted. Options are:

```
HITS      Sort by hits.
NAME      Sort by name.
DATE      Sort by date.
NONE      Unsorted.
```

You can use ASCENDING or DESCENDING after the type of search to specify an ascending or descending sort.   For example:

```
SET SORT = NAME DESCENDING
```

This would specify a sort in reverse alphabetical order.   By default, name sorts are ascending and hits and date sorts are descending.

After your search, you will want to be able to see the results.   There are three ways to do this. First, you can use

```
SET RESULTS = c:\mysearch.dat
```

This tells dtSearch to write the results of the search to c:\mysearch.dat.   After your search, you can choose View File in the File menu to view c:\mysearch.dat.   Your search results will appear in the same way as other search results in dtSearch.

A second way to view your search results is to create a listing file, which is simply a list of the name of each retrieved document and the number of hits it contained.   If you view this file in dtSearch, it will look like a list of names and will not act like a search results window. Listing

files are useful if you want to use another program to process the results of your search.   To create a listing file, use the command:

    SET LISTING = c:\mysearch.lst

A batch search can produce either a search results file, a listing file, or both.

    Finally, you can use Previous Search in the Search menu to view your search results.   This will work whether or not you use SET RESULTS or SET LISTING.   Note that only the last ten searches are saved for viewing.

The File Menu

Choose File in the main menu to get into the File menu.   The File menu lists options to

* view, edit, or print a file,
* create a DOS Shell (DOS version only), or
* exit dtSearch.

Viewing a File

To view a file, choose View File in the File menu.   A dialog box will appear asking for the name of the file you want to view.   Type in the name of the file and press ENTER.   The file will appear in a window.

When you are viewing a document, you will see a list of function keys (in DOS) or a button bar (in Windows) similar to the one displayed when viewing a file retrieved in a search:

F2	Find	Search the document for a string of text.
F6	Mark	Start marking text to copy to a file.
F7	Copy	Copy marked text to a file.
F8	Launch	Launch the document.
F9	Local Menu	Pops up the "Local" menu listing various things you can do with the window.

The Local Menu

The Local menu lists things you can do when viewing a file:

Resize	Resize the window (DOS Version).
Zoom	Expand the window to the maximum possible size (DOS Version).
Print	Print the document.
Find	See Find, above.
Mark	See Mark, above.
Copy	See Copy, above.
Launch	See Launch, above.

Cursor commands

Top of document	Home,Home,Up
End of document	Home,Home,Dn
Beginning of line	Home,Left
End of line	Home,Right or End
Page up	PgUp
Page down	PgDn

Menu and Window Commands

* To get into the main menu, press F10 or click on the main menu with the mouse.

* To get back to the window from the main menu, press ESCAPE or click on the window with the mouse.

*   To move from one window to the next (i.e., if you are viewing more than one file or if there are search results on the screen), press TAB. SHIFT-TAB moves to the previous window.

*   ESCAPE closes a window.

*   See "Viewing Multiple Windows" for more information on viewing documents and search results in overlapping windows.

Editing a File

dtSearch for Windows contains a built-in way to access the Windows NOTEPAD editor. This editor cannot edit files in word processor formats such as WordPerfect or Ami Pro.   It will only edit DOS text files.   The editor provides limited editing capabilities, intended mainly for jotting down notes to accompany text clipped from documents.   (To clip text from a document, use the Mark and Copy functions, which are explained in the chapter on "Viewing Search Results.")

To edit a file, choose Edit File from the File menu.   The Edit File dialog box will appear. Enter the name of the file that you want to edit and chooseOpen.   The Windows NOTEPAD editor will pop up over dtSearch with the file you specified.   See your Windows documentation for information about using NOTEPAD.

Printing a File

When you are viewing a file, you can print the file you are viewing by choosing Print from the File menu.   Print will print the entire file, not just what appears on the screen.

When you select Print, the Print dialog box will appear.   The Print dialog box allows you to set page length, width, and margins, headers, footers, and page numbering.   The dialog box is the same for DOS and Windows, with the following exceptions:

If you want to print to a file instead of to the printer, check the Print to File box.   After you choose OK, dtSearch will ask for the name of the file to print to.   To select the printer to use, choose Printer Setup in the File menu.

DOS Shell

Choose DOS Shell in the File menu to access DOS from within dtSearch.   When you start a DOS shell, dtSearch removes most of itself from memory to leave room for any programs you may want to run from DOS.   The dtSearch screen will disappear and a DOS prompt will appear.

To return to dtSearch from a DOS shell, type "EXIT" at the DOS prompt and press ENTER. The dtSearch screen will reappear, as it was before you entered the DOS shell.

Launching Applications

dtSearch provides an easy way to use dtSearch to edit a file that you have retrieved in a search, using the word processor that you used to create the file.   This is called "launching" a program.

When you launch a program in dtSearch for Windows, the program will appear in a window overlaying dtSearch.   You can return to dtSearch after you are done using the program, or you can leave both programs on the screen and switch back and forth between them using the mouse or ALT-TAB.

To launch a program from within dtSearch, you must first tell dtSearch about the program. To do this, choose Applications in the Options menu. After you have set up an application in dtSearch, you can press F8 (or click on "Launch") while viewing a document belonging to the application, and dtSearch will launch the application with the document.

Setting up an Application

Choose Applications in the Options menu to associate groups of files with applications so that you can "launch" a retrieved document in the application that created it.   The Applications dialog box will appear.

* To define a new application, select "<add new item>" and choose the Edit button.

* To edit an application that you set up previously, move the cursor to it and choose the Edit button.

A dialog box will appear allowing you to specify the following for each application:

Name
    The name that will appear in the list of applications.

File to Execute
    The name of the file to run to start this application.   For example, if you have WordPerfect 5.1 in a directory called C:\WP51, you would enter C:\WP51\WP.EXE (the name of the WordPerfect program).

Directory to Run in
    The "home" directory for this application.   Enter a directory here if you want dtSearch to run the application in a specific directory.   If you leave this blank, dtSearch will not change directories before running the application.

Command Line Options
    Enter any command line switches (e.g., "/s", "-d", etc.) that you want dtSearch to use when launching this application.   This is optional.

Run as
    Under "Run as" is a list of five different ways an application can be run:

        DOS Normal: dtSearch will remove itself from memory and run the program. dtSearch will return after the program is done.

        DOS Quick: dtSearch will attempt to run the program without removing itself from memory.   This will only work if the program requires very little memory.

        Windows Normal: dtSearch will launch the program in Windows.

        Windows Minimized: dtSearch will launch the program in Windows as an icon.

        Windows Maximized: dtSearch will launch the program in Windows, full-screen.

Filename Filter

The filter to use to match files with this application.   If you leave this blank, all files will be included.   This filter is similar to the filters in the Add Documents to Index dialog box, except that it can include drive and directory specifications, such as:

\WP42   Matches anything in a directory named WP42
C:*.DOC   Matches any filename ending in ".DOC" on drive C:

File Type
   The file format that is associated with this application.   If you select "Any," all files will be included.

   dtSearch matches files with applications using a combination of the file type and the filename filter.   If you specify both, both must match.   If you specify "Any" for the file type, only the filter is checked.   If you leave the filter blank, only the file type is checked.

   If more than one application could match a file, dtSearch will prefer the one that can run in the current environment (i.e., DOS or Windows). For example, if you defined "WordPerfect for DOS" and "WordPerfect for Windows" as two applications associated with WordPerfect files, dtSearch would launch WordPerfect for Windows under Windows and WordPerfect for DOS under DOS.

   Here is an example of how to set up WordPerfect 5.1 for DOS as an application and launch it:

*   Choose Applications in the Options, move the cursor to "<add new item>" and choose OK.

*   Under Name, enter "WordPerfect"

*   Under File to Execute, enter "C:\WP51\WP.EXE" (assuming that WordPerfect is installed in C:\WP51).

*   Under Directory to Run in, enter "C:\WP51".

*   Under Run as, choose DOS Normal.
 *   Leave Filename Filter and Command Line Options blank.

*   Under File Type, choose WordPerfect.

*   Choose OK to get back to the Applications dialog box and then choose OK in that dialog box.

   After you have done this, you can press F8 while viewing any WordPerfect document and you will be able to edit the document in WordPerfect.

The Options Menu

The Options menu lists options to:

*   Create and edit macros.
*   Define applications that you can launch.
*   Define the file types for word processors that dtSearch cannot recognize automatically.
*   Change the format for the display of search results.
*   Select a new alphabet file.
*   Specify other preferences.

Screen Colors

Choose Colors in the Options menu to change the way dtSearch displays documents and menus.   The Colors dialog box will appear.   The first column will list types of screen objects that you can modify (Menus, Dialog Boxes, File Viewers, etc.).   When you select a screen object from the first column, the second column will list all of the parts of the object, such as the scroll bar, normal text, selected text, etc.

When you choose an item from the second column, a box to the right of that column will display the current color setting for the item.   On a monochrome monitor, a list of monochrome screen attributes (underline, highlight, etc.) will appear in this box.   On a color monitor, a sample of each possible foreground and background color will appear.   Use the arrow keys or the mouse to select the color you want for the screen item, then press TAB (or use the mouse) to select another item to modify.

After you are done changing the colors, choose OK to save your changes.   To restore the default colors, choose Default Colors in the Options menu.

File Types

dtSearch is able to detect most file formats automatically.   However, some file formats, such as WordPerfect 4.2 and older versions of WordStar, cannot be automatically detected.   To enable dtSearch to recognize files in these formats, choose File Types in the Options menu. The File Types dialog box will appear.

*	To set up a new file type, select "<add new item>" and choose the Edit button.

*	To edit a file type that you set up previously, move the cursor to it and choose the Edit button.

A dialog box will appear asking you to specify the following:

*	Type: Choose the file type you want to set from the list in the dialog box.

*	Filename Filter: Enter a filename filter (i.e., "*.DOC") that will identify files having that format. For example, you can tell dtSearch that any file whose name matches "*.W42" is a WordPerfect 4.2 document.

The filename filter used in this dialog box is similar to the filter in the Add Documents to Index dialog box, except that it can also include directory and disk drive specifications, such as:

\WP42	Matches anything in a directory named WP42
C:*.DOC	Matches any filename ending in ".DOC" on drive C:

Before using this file type information, dtSearch will try to detect the format itself.   Thus, no matter what file type specifications you enter, dtSearch will recognize formats such as WordPerfect 5.1 that it can detect automatically.

Search Results Format

Choose Search Results Format in the Options menu to modify the format dtSearch uses to display search results.   A dialog box will appear listing all of the items that can be displayed in search results.   Select the ones you want to be displayed and choose OK to save your changes. The only limitation on your ability to customize search results is that either the name of the retrieved file or its "title" (the first few words in the file) must be displayed.

By default, dtSearch will display for each file the number of hits, name, directory, modification date, and title.

Preferences

Choose Preferences in the Options menu to change the following options:

Search limit

This is the maximum number of files that dtSearch will retrieve in a search.

Tab size

The is the width of a tab in a file displayed in a document window. For most word processors, this will be specified in the document. However, for ASCII text files, the value specified here will be used.

Warn if file is too long

Check this box if you want a warning message whenever dtSearch attempts to index a file that is longer than 64,000 words.   (Words after the 64,000th word will not be indexed.)

Quiet mode

Check this box if you do not want a "beep" every time dtSearch displays an information or error message.

Index binary files

Check this box if you want dtSearch to index binary files.   See the chapter on indexing documents for more information about this feature.

ENTER key means... (DOS version only)

Use this option to specify how you want the ENTER key to affect dialog boxes in dtSearch for DOS.   Under this item are two choices: "Go to next item" and "Select OK button."

If you select the first choice, the ENTER key will take you to the next item in a dialog box, unless the cursor is on a button.   If the cursor is on a button and you press ENTER, the button is pressed.

If you select the second choice, the ENTER key will work the same way it works in Windows.   Pressing ENTER in a Windows dialog box is always the same as pressing the OK button.   Instead of using ENTER to get from one item to the next, Windows users have to use TAB or the mouse.   If you prefer this, choose the "Select OK button" option.

User Name

Enter your name here if you will be using dtSearch on a network.

Alphabet Customization

dtSearch includes a utility called ALPHABET.EXE that allows you to customize dtSearch to work with character sets other than U.S. English. ALPHABET works by editing tables that dtSearch uses to process text. ALPHABET is very flexible and allows you not only to designate characters as searchable or not searchable, but also to specify what the rules are for capitalization and for converting between accented and unaccented characters.

Most users should never have to use ALPHABET since they can work with the default alphabet file.   Unless you are using non-English text and need to customize the handling of accents, umlauts, etc., there is no reason for you to bother with ALPHABET.

If you do need to use ALPHABET to customize character set information for your system, please read the entire manual chapter on the ALPHABET utility you begin, especially if you have WordPerfect (you may save a lot of time by doing this).

To customize the way dtSearch handles characters, first set up a new alphabet file using ALPHABET and then choose Alphabet in the Options menu in dtSearch to make dtSearch use the new alphabet.

Alphabet Files

An alphabet file contains two tables: an alphabet and a WordPerfect table. The alphabet contains general information about each character (whether it is a letter, space, hyphen, or ignore character, whether it has an accent or is lower case, and the unaccented and upper case equivalent). The WordPerfect table contains the conversion table for WordPerfect characters. Both of these are described in more detail below.

Note: dtSearch can only use one alphabet file at a time. If you change the alphabet file after indexing some documents, you should delete the index and rebuild it since it will no longer be valid with the modified alphabet file.

Character Types

Every IBM PC compatible computer uses a character set containing 256 letters and symbols. The first 128 characters in the set (numbered from 0 to 127) are called the ASCII character set and are the same for all PCs.   The 128 ASCII characters include the letters of the English alphabet (a-z and A-Z), the digits (0-9), punctuation, and certain other characters.

The other 128 characters (numbered from 128 to 255) differ from one PC to another, depending on the language that the PC is set up to use.   For example, on one PC, character number 150 might be an accented "e," while on another it could be an "O" with two dots above it.

A dtSearch alphabet table classifies each character into one of four types: "letter," "space," "hyphen," and "ignore."

letter   A "letter" is any character that you want to be able to search for.   All of the characters in the alphabet (a-z and (A-Z) and all of the digits (0-9) should be classified as letters.

space   A space is any character that you want to cause a word break. For example, if you classify the period (".") as a "space" character, then dtSearch would process "U.S.A." as three separate words: "U" "S" and "A".

hyphen   A hyphen causes special handling of the words surrounding it. Usually only two characters get classified as "hyphen": the ASCII hyphen ("-") and the underscore ("_").   dtSearch indexes a hyphenated word as four different words to cover all possible ways to search for the word. "Full-text" would be indexed as "full," "text," "fulltext," and "full-text."

ignore   An ignored character is disregarded in processing text.   If you classify the period as "ignore" instead of "space," then dtSearch would process "U.S.A." as one word: "USA".

Windows Character Set

Microsoft Windows uses its own character set, called the "ANSI" character set.   Certain Windows word processors, such as Lotus Ami Pro, use the ANSI character set rather than the ASCII character set for storing text.   dtSearch handles ANSI characters in documents by converting them to their ASCII equivalents.

The default table dtSearch uses to convert documents using the ANSI character set is in a file called ANSI.DAT, which is included with dtSearch.   If you are working with non-English language text in Windows-based word processors, you will probably want to generate an ANSI.DAT table customized for your system.   To do this, remove ANSI.DAT from your dtSearch directory and then run dtSearch for Windows.   dtSearch for Windows will see that ANSI.DAT is missing and generate a new copy of the file using information supplied by Windows.

Letter Types

dtSearch alphabet tables store additional information about characters that are classified as letters. The table will indicate which letters are upper and lower case, and it will also indicate which letters have accents. For lower case letters, the table will contain an upper case equivalent. For accented letters, the table will contain an unaccented equivalent.

dtSearch uses these equivalents when you build an index or do a search. When you create an index, you can specify whether you want the index to be "case insensitive" and whether you want it to be "accent insensitive." A case insensitive index converts all text to upper case in the index, so that "Apple," "apple" and "ApPlE" would all be treated the same as "APPLE." If an index is case sensitive, "Apple," "apple," and "APPLE" would be regarded as three different words. If you are working with normal text, a case-sensitive index would be a very bad idea since, when you enter a search for "apple," you would generally not want to miss a document containing "Apple." Case sensitive indexes may be useful, however, for programmers indexing program code.

Similarly, an "accent insensitive" index strips the accents from text in the index, so that letters with cedillas, tildes, etc. are converted to theirunaccented equivalents. It is generally best to make indexes accent insensitive since this minimizes the chance that you will miss retrieving a document because of a forgotten accent.

WordPerfect Conversion Tables

WordPerfect documents can contain special characters from one of twelve different WordPerfect character sets.   This allows WordPerfect documents to contain characters, like accented letters, mathematical symbols, and Greek letters, that are not in the basic ASCII character set.

WordPerfect defines over 1500 special characters, which are divided into groups of up to 250 characters each.   The groups are called "Character Sets."   The WordPerfect character sets are: Ascii, Multinational 1 (accents and accented letters), Multinational 2 (more accents), Box Drawing, Typographic Symbols, Iconic Symbols, Math/Scientific, Math/Scientific Extension, Greek, Hebrew, Cyrillic, Hiragana and Katakana, and User Defined.   Take a look at the appendix of your WordPerfect manual to see what the character sets look like.

To handle WordPerfect characters, dtSearch needs to be able to tell how each WordPerfect character should be displayed on your system.   To do this, dtSearch uses a conversion table that allows you to specify how you want each of the WordPerfect special characters to be indexed and displayed in dtSearch.   This conversion table is separate from the alphabet table described above.   When dtSearch encounters a WordPerfect special character, it first uses the WordPerfect conversion table to determine what the character means, and then uses the alphabet table to determine how the character should be indexed.   For example, if dtSearch finds character number 62 from WordPerfect character set 1 in a document, it will look it up in the table and see that this corresponds to an "O" with two dots over it.   It will then look in the alphabet table to determine whether this character is a letter, whether it is upper or lower case, and whether it has an accent.

Creating an Alphabet File

The ALPHABET utility contains three top-level menus: File, Alphabet, and WordPerfect. The File menu allows you to open, close, save, or rename an alphabet file.   Once you have opened a file, you can use the Alphabet menu to modify the alphabet or use the WordPerfect menu to modify the WordPerfect table.

Editing the Alphabet

When you open an alphabet file, a window will appear on the screen that allows you to edit the alphabet in the file.   Characters are divided into seven groups: upper-case letters, lower-case letters, accented upper-case letters, unaccented lower-case letters, spaces, hyphens, and ignored characters.

To modify the characteristics of a character, move the cursor to it (or click the mouse on it). A dialog box will appear allowing you to specify the following:

*   Whether the character is a letter, space, hyphen, or ignored character.

*   Whether the character is lower case or accented.

*   If the character is lower case or accented, what the upper case and unaccented equivalents would be for the character.

Set Alphabet to Default

If you select "Set to default" in the Alphabet menu, ALPHABET will generate the default DOS alphabet for your computer.   Since DOS does not know whether a character is accented or not, most accented letters will be classified as unaccented in the default alphabet.   If you want dtSearch to be able to correctly handle accent-insensitive indexes, you will need to edit the resulting alphabet to include information about accents.

Generate using WordPerfect

This option is somewhat complicated to use, but it provides a very powerful shortcut to customizing an alphabet for your system. WordPerfect includes a file called CHARACTR.DOC, which lists every character in the WordPerfect character set.   This file is in WordPerfect format and you can edit it like any other WordPerfect document.   To generate an alphabet using WordPerfect, you would do the following:

1.   Retrieve CHARACTR.DOC into WordPerfect.

2.   Press CTRL-F5 ("Text In/Out"), 1 ("DOS Text"), 1 ("Save").   This will allow you to save CHARACTR.DOC in DOS Text format.

3.   Enter a name that is not the same as CHARACTER.DOC.   Call it something else, like

"CHARS.TXT".   (Otherwise you will overwrite your existing CHARACTR.DOC file.)

4.   Exit WordPerfect.   Do NOT save the file. (You have already saved it in CHARS.TXT as a DOS Text file.)

5.   Run ALPHABET and open a file for the alphabet you want to create.

6.   Choose Generate using WordPerfect in the Alphabet menu and, under File to generate from, enter the name of the file you just created (i.e., CHARS.TXT).   ALPHABET will analyze the CHARS.TXT file and produce an alphabet for your system based on the file.

   How does this work?   When WordPerfect saves a file in DOS Text format, it converts the WordPerfect special characters in the file to the appropriate equivalent characters for the your computer.   Thus, the resulting CHARS.TXT file is a table showing, for each of the special WordPerfect characters, what the is equivalent character on your computer.   ALPHABET knows how to read this table and use it to deduce which characters on your computer are letters, accented letters, upper case letters, etc.   The resulting alphabet is usually very close to what you will want (there may be one or two misplaced characters, which you can clean up by hand).

<p style="text-align:center">Generate printable chart</p>

   This command simply generates a printable chart listing information about each character in an alphabet.   This is useful if you want to keep a record of the changes you have made.

Creating a WordPerfect Table

The ALPHABET utility allows you to modify the way dtSearch treats special characters in WordPerfect documents by editing the WordPerfect character conversion table in an alphabet file. Note that the WordPerfect character table is separate from the alphabet table described above. Changes to the WordPerfect character table do not affect the alphabet settings (i.e., which characters are "letters," "ignore," etc.).

To modify the WordPerfect character conversion table in an alphabet file, you must first open an alphabet file in the ALPHABET utility. (Choose Open in the File menu.) Then choose Edit Character Sets in the WordPerfect menu to edit the WordPerfect character conversion table. A dialog box will appear with a list of the WordPerfect character sets on the bottom and a chart showing the currently selected set on the top.

The chart showing the currently selected character set is drawn in exactly the same format used in the appendix of the WordPerfect manual, so you can easily compare the appearance of the characters on the screen with the chart in the manual. Characters that ALPHABET does not know how to display on your system will appear as a question mark ("?").

To see one of the character sets, press TAB to get into the list of character sets and then use the cursor to select the one you want, or just click on the name of the character set you want with the mouse. The chart will display the character set you have selected.

To change the appearance of a character, move the cursor to it and press ENTER, or click on the character with the mouse. A dialog box will appear that will allow you to select a character to be used to represent the WordPerfect character you selected.

At any time, you may restore the default values for the WordPerfect Conversion table by pressing the "Restore Default" button in the dialog box. Any changes you have made will be lost.

As with alphabet customization, ALPHABET provides a powerful shortcut to customizing the WordPerfect table for your system, again using the WordPerfect CHARACTR.DOC file. Follow the procedure described above to create a CHARS.TXT file, and then do the following:

1. In the WordPerfect menu, choose Edit Character Sets.

2. Choose Generate in the WordPerfect Character Tables dialog box.

3. A dialog box will appear asking for the name of the file to generate from. Enter the name of the CHARS.TXT file you created. ALPHABET will deduce from the table in CHARS.TXT how each member of the WordPerfect character set should appear on your system.

After you have modified the WordPerfect table you can test it by viewing the CHARACTR.DOC file in dtSearch.

Using dtSearch on a Network

dtSearch can use network drives and supports multiuser access to indexes stored on networks. If an index is stored on a network drive, any user who has write access to the directory containing the index will be able to update the index in dtSearch.   Any user who has read access to the index will be able to search the index or perform other functions (such as Verify Index and Copy Index) that do not require write access.

Multiuser access is permitted only when no one is modifying an index. If one user is updating or compressing an index, other users will be locked out.   A message "User XXXX is updating index" will appear when a user attempts to gain access to an index that is being updated.   (The name of the user comes from the "User name" option in the Options menu.)

Write access to shared indexes should be limited as much as possible, preferably to one or two users.   This will minimize locking out of other users while the index is being updated and will also protect the shared indexes against accidental erasure.   Write and read access to shared indexes is controlled completely by the network's access permission settings.

Each user on a network who will be using dtSearch needs to have his or her own copy of the program.

Program Limits and Requirements

1. Program limits: Indexes
    *   A single index may contain up to 15,000 documents.   There is no limit on the number of indexes you can have.
    *   A single document may contain up to 64,000 words (about 300 double-spaced pages).
    *   An index library can hold up to 25 indexes, and there is no limit on the number of index libraries you can create.
    *   A noise word list can hold up to 200 words.   Words after the 200th word in a list will be disregarded.

2. Program limits: Searches
    *   A search word can be up to 32 letters long.
    *   A search request can be up to 180 characters long.
    *   You can have up to 25 macro definitions.

3. System requirements:
    *   dtSearch for DOS will run on an IBM-compatible computer with at least 384k of memory available, a hard disk, and DOS version 3.3 or higher.   However, at least 512k of memory is recommended to run dtSearch.   (With less memory, you may be unable to execute certain complex searches.)
    *   dtSearch for Windows requires Windows version 3.1.   It will not run under Windows version 3.0.
    *   dtSearch can use network drives and supports multiuser access to indexes stored on network drives.

4. Document Types
    dtSearch can read, search, and index documents in the following formats:
    *   Ami Pro
    *   ASCII or DOS Text
    *   Microsoft Works
    *   Microsoft Word through version 5.5
    *   Microsoft Word for Windows through version 2.0
    *   Microsoft Rich Text Format
    *   Multimate Advantage II
    *   Multimate version 4
    *   WordPerfect 4.2, 5.0, and 5.1
    *   WordPerfect 5.1 and 5.2 for Windows
    *   WordStar through version 6
    *   WordStar 2000

Error Messages (A-E)

"Application table is full"

> You can define up to 7 applications in dtSearch.   If you attempt to add more, this message will appear.

"Cannot copy an index onto itself"

> You have asked dtSearch to copy an index, and either (1) the directory to copy it to is the same as the directory the index currently occupies, or (2) the name of the index to copy is the same as the new name for the copied index.   When you copy an index, the name and directory for the new index must be different from the name and directory of the existing index.

"Cannot overwrite protected file type"

> This message will appear if you attempt to use Edit File to edit a document that dtSearch recognizes as a word processing document.   To protect against accidental destruction of original documents, dtSearch considers all files with special formatting codes that it recognizes (such as WordPerfect files) to be "protected."   dtSearch will not overwrite such files.

"Directory xxx already contains index yyy"

> A directory can only hold one index.   If you try to use Create Index to create a second index using the same directory name, this message will appear.

"Error launching application"

> dtSearch tried to execute a program and the program returned an error code.   This means that something when wrong in the launched program.

"Error(s) in search request -- CONTAINS without a TO"

> A segment search has the form beginning TO end CONTAINS contents.   The beginning TO end part defines where dtSearch should search, and the contents part is what dtSearch should look for.   If you leave out the "TO" part, dtSearch has no way to know what the segment to be searched is.

"Error(s) in search request -- Illegal use of the TO connector"

> The TO connector is used to define a segment for a segment search. The format for a segment definition is beginning TO end, where beginning marks the beginning of the segment and end marks the end.   Both parts of the segment definition may consist only of words, phrases, and the OR connector -- other connectors are not permitted in segment definitions. Thus, "(apple or pear) to (grape or fish)" is legal; "(apple and pear) to (grape or

fish)" is not.

"Error(s) in search request -- Illegal use of W/N connector"

    Some search requests using the W/N connector are ambiguous or impossible to evaluate. See the manual section on the W/N connector for more details.

"Error(s) in search request -- Invalid date"

    dtSearch will display this message if it finds XDATE in a search request without a valid date after it.   Likely causes of this error are a misspelled month, a missing year, or a missing BEFORE, AFTER, or IS connector.   A valid date search looks like one of the following:
      XDATE IS date
      XDATE BEFORE date
      XDATE AFTER date

"Error(s) in search request -- Missing words"

    This message appears when you have left one or more words out of a search request. Example: "apple and pear and"

"Error(s) in search request -- Parentheses do not balance"

    This just means that you have left out an opening or closing parenthesis in a search request.

"Error reading WordPerfect file"

    WordPerfect files occasionally become corrupted due to disk problems or WordPerfect bugs. When dtSearch reads a WordPerfect document, it checks for errors in the file and displays this message if it finds any. Note: You can generally fix a corrupted WordPerfect document by (1) getting the mostrecent release of WordPerfect and (2) retrieving the document into WordPerfect, scrolling to the end of the file, and saving it.

"Error running script"

    This message will appear after you have executed a batch script and errors occurred.   Check the log file created during execution of the script to see what happened.   (The log file will have the same name as the script file but it will end in ".LOG".)

Error Messages (F-M)

"File xxx has more than 64,000 words"

> dtSearch cannot index more than 64,000 words in a single file.   This message will appear if a file exceeds the 64,000 word limit.   To turn off this warning message, choose Preferences in the Options menu and uncheck the box next to Warn if file is too long.

"File xxx is not a script file"

> You have attempted to execute a file using the /SCRIPT option, and dtSearch determined that the file was not a batch script.   All dtSearch batch scripts must begin with the words "DTSEARCH SCRIPT."

"Index already exists"

> If you try to create an index that already exists in a different directory, this message will appear.   If you are trying to create a new index, try using a different name for the new index, or (if you do not want the old index) deleting the old index.   If you are trying to re-create an existing index, make sure the directory you have selected is the same one that you used to create the original index.

"Index has version 1.x format"

> You have asked dtSearch 2.0 to search or update an index created by dtSearch version 1.0, 1.1, 1.11, or 1.12.   dtSearch 2.0 cannot use these indexes.

"Index is full"

> An index can hold up to 15,000 documents.   If you try to add more than 15,000 documents to an index, you will get this message.   (You can still reindex documents already in the index.)

> Even if you have less than 15,000 documents, you may still get this message if you have reindexed some documents without compressing the index.   When you reindex a document, dtSearch adds information about the new document to the index but does not remove information about the earlier version.   For example, if you have 10,000 documents in an index and you reindex them several times without compressing the index, you may get an "Index is full" message because the index will still contain information about obsolete versions of the documents.   If you want to see how many obsolete documents are stored in an index, use the "Index Information" option in the Index menu.   Use Compress to clean obsolete documents from your index.

"Index library is full"

> An index library can hold a maximum of 25 indexes.   If you try to create, copy, or

recognize an index when you have reached this limit, you will get this error message. Try either deleting any indexes that you do not need, or creating a new index library to use for the new index.

"Index too large to fit on drive"

You have asked dtSearch to copy an index and there is not enough space for the index on the drive where it is to be copied.

"Invalid disk drive"

This means that you have asked dtSearch to access a disk drive that does not exist on your computer.

"Macro is circular"

A circular macro is one that references itself, directly or through other macros. Such a macro would expand infinitely if used in a search request.

"Macro not found"

dtSearch assumes that any search term beginning with the "@" character is a macro name. If it does not find a macro with this name, this message appears.

"Missing file"

One of the files that dtSearch needs is missing. Try re-installing dtSearch to restore the missing file.

Error Messages (N-S)

"No application to launch"

> You have tried to "launch" an application with a file, and dtSearch was unable to match the file with an application.   When you launch an application with a file, dtSearch checks the type and name of the file you launched against the applications you set up in your applications table.   If dtSearch cannot find a match, this message will appear.   Try checking the application you intended to launch by choosing Applications in the Options menu to make sure the application was set up correctly.

"No files retrieved"

> Your search did not retrieve any documents.

"No files to index"

> This means that you tried to add some documents to an index, but either you did not specify any files to be added or all of the files were already in the index.

"Noise word used in search request"

> A noise word is a word like "the" or "if" that is so common that it is not useful in searching. This message will appear if one of the words in a search request is a noise word in the index you are searching.   See the manual section on noise words for more information.

"Not enough memory"

> dtSearch did not have enough memory to perform a requested action.   If you have a relatively small amount of memory available, you may get this message when you try to do a search or update an index while you are viewing documents or search results on the screen. Here are some steps to try if you get this message:

> > Close all document windows.
> * If this message appears while doing a search, try simplifying the search request.
> * Remove some memory-resident programs to free more memory for dtSearch to use.
> * Run dtSearch using the /LM1 ("low memory mode") or /LM2 ("very low memory mode") switch.

"Not enough space to compress or update index"

> dtSearch did not find enough disk space available to update or compress an index.   dtSearch requires free space of about one-third the size of a group of files to index those files.   To compress an index, dtSearch requires free space at least equal to the size of the index to be compressed.   If you get this message, try removing some files from the disk or moving the index to a disk drive with more space available. Also, try indexing smaller groups of files.

"Not found"

You have used Find (F2) to search for text in a document, and the text was not found.

"Printer error"
"Printer out of paper"
"Printer not responding"
"Printer not selected"
"Printer timeout"

The printer did not respond correctly when dtSearch tried to print something.   Check the cables and make sure the printer is turned on, selected, has paper in it, and is not jammed. dtSearch reports the problem that DOS told it about, but sometimes either the printer or DOS does not report the problemcorrectly.   For example, you may get a "Printer out of paper" error message when the printer is not turned on.

"Search request is too long"

It is possible, using macros, to generate search requests longer than the 180-character maximum.   When this happens, you will get a "Search request is too long" error message.

Error Messages (T-Z)

"To create an index, you must enter a name for the index"

   You have used Create Index to create a new index and did not enter a name for the index.

"Too many files retrieved -- search halted"

   By default, dtSearch will halt a search after 99 files have been retrieved.   If you would like to change this number, choose Preferences in the Options menu and change the value for Search limit.

"Too many words retrieved in index"

   Your search request contained extremely broad search terms, such as "(r* w/5 s*) and t*," that matched several hundred words in an index. Try using more specific search terms.

"Unable to access drive"

   You have asked dtSearch to access a disk drive and there is some problem with the disk drive.   If you were trying to access a floppy disk drive, make sure that there is a disk in the drive, that the disk is correctly inserted, and that the drive latch is closed.   If you were trying to access a hard disk drive, the drive you requested may not exist or there may be a problem with your hard disk.

"Unable to access ..."
"Unable to read ..."

   dtSearch cannot find the file or directory you specified.   Check that the file or directory name is correct and that you are using the right disk or disk drive.

"Unable to create ..."
"Unable to write ..."
"Unable to save ..."

   dtSearch cannot write to or create the file or directory you specified.   Check that the file or directory name is correct and that you are using the right disk or disk drive.   These messages may also appear when a disk is full.

"Unable to access index"

   dtSearch was unable to find the index where it was supposed to be. The most likely cause for this message is that part or all of the index was accidentally deleted or moved.

"User XXXX is updating index"

On a network, this message will appear when one user attempts to use an index while another user is updating it.   The message can also appear if dtSearch was interrupted abnormally while updating an index (e.g., if someone turned off the computer while building an index).   In the latter case, the index may be damaged.   Try running Verify Index to check for errors and delete and rebuild the index if Verify Index reports that the index is corrupted.

"You must create an index before using this command"

You have tried to execute a command that cannot be used unless you already have an index to work with.   Choose Create Index (Basic) in the Index menu to create an index.

"You must have a document or search results window open to use this command"

You have tried to use a command that works with one or more document or search results window (such as Print, Local Menu, Cascade Windows, or Tile Windows) and there are no windows currently open.

Technical Support

For technical support on dtSearch, please contact the Advanced Support Group:

Telephone: (314) 965-5630
FAX: (314) 966-1833
BBS: (314) 966-1833
CompuServe: 70304,3642

You can reach DT Software, Inc., at (703) 521-9427, by mail at 2101 Crystal Plaza Arcade, Suite 231, Arlington, Virginia 22202, or on CompuServe at 72607,3323.

How to Order a Site License

Site licensing enables companies, departments, government agencies, etc., to equip their personnel with software at greatly reduced cost. The company purchasing a site license (the licensee) typically provides a single point of contact for shipping, technical support, upgrades, etc., and we (the licensor) provide a single master of the diskettes and manual.

A site license for dtSearch for DOS or dtSearch for Windows costs $200.00 plus $50 per user for up to 50 users.   Additional users beyond 50 cost $40 per user.

A combined DOS/Windows site license is also available for $20 extra per user.   This site license enables each licensed user to use both dtSearch for DOS and dtSearch for Windows.

To order a dtSearch site license, please contact the Advanced Support Group:

Telephone: (800) 788-0787
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BBS: (314) 966-1833
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CompuServe: 70304,3642

Prices:

   dtSearch for DOS: $99.00
   dtSearch for Windows: $99.00
   Both: $149.00

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