dtSearch Desktop/Network

dtSearch Corp.

https://www.dtsearch.com
(301) 263-0731
info@dtsearch.com

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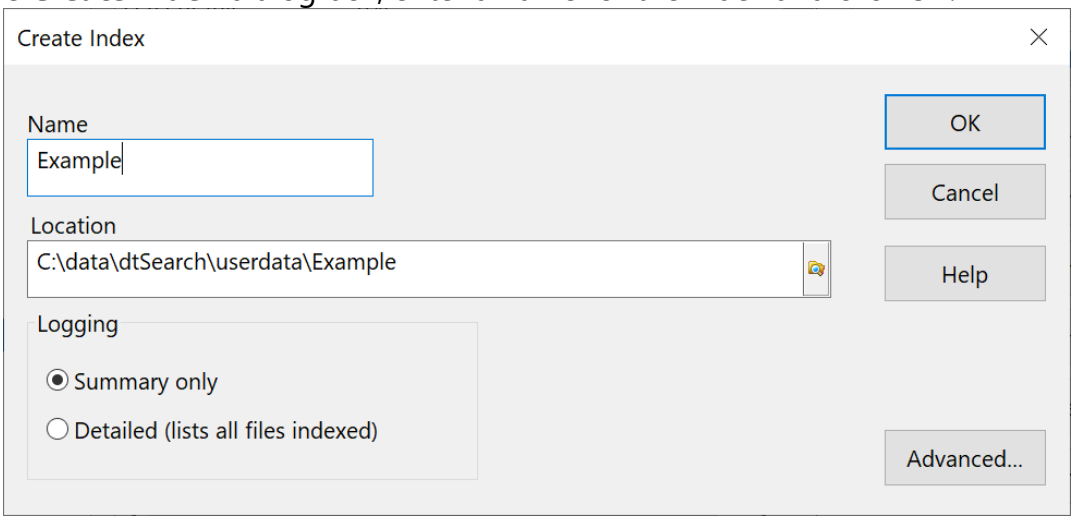
Getting Started

Quick Start

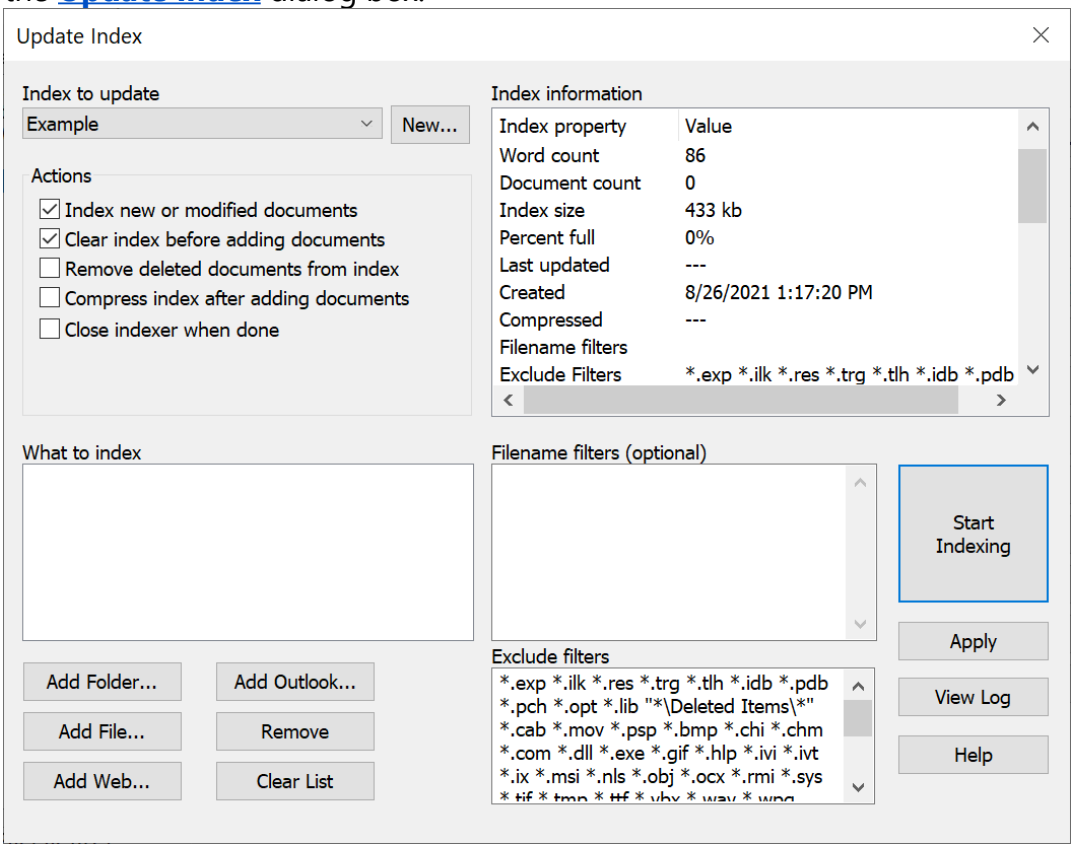
dtSearch can search terabytes of text in a second. It does this by building an index that stores the location of each word in your files. Therefore, to get started with dtSearch, the first step is to build an index of your documents.

Indexing Documents

1. Click **Index >** **Create Index**.
2. In the **Create Index** dialog box, enter a name for the index and click OK.



3. dtSearch will ask if you want to add documents to the index. Click **Yes** to go to the **Update Index** dialog box.



4. Add documents to the index
   Click **Add Folder...** to add a folder to the list of folders to index.
   Click **Add Web...** to index a site using the dtSearch Spider.
   Click **Add Outlook...** to add folders from your Outlook profile to the index.
5. Click **Start Indexing** to begin adding documents to your index.

Updating an Index

If you edit your original documents, you will need to update your index to reflect the changes (otherwise, hit highlighting will be incorrect).

To update your index, click **Index > Update Index** (or press Ctrl+U). Check the **Index new or modified documents** box and the **Remove deleted documents** box, and then click the **Start Indexing** button.

To schedule automatic updates of your indexes, click **Index > Index Manager > Schedule Updates**.

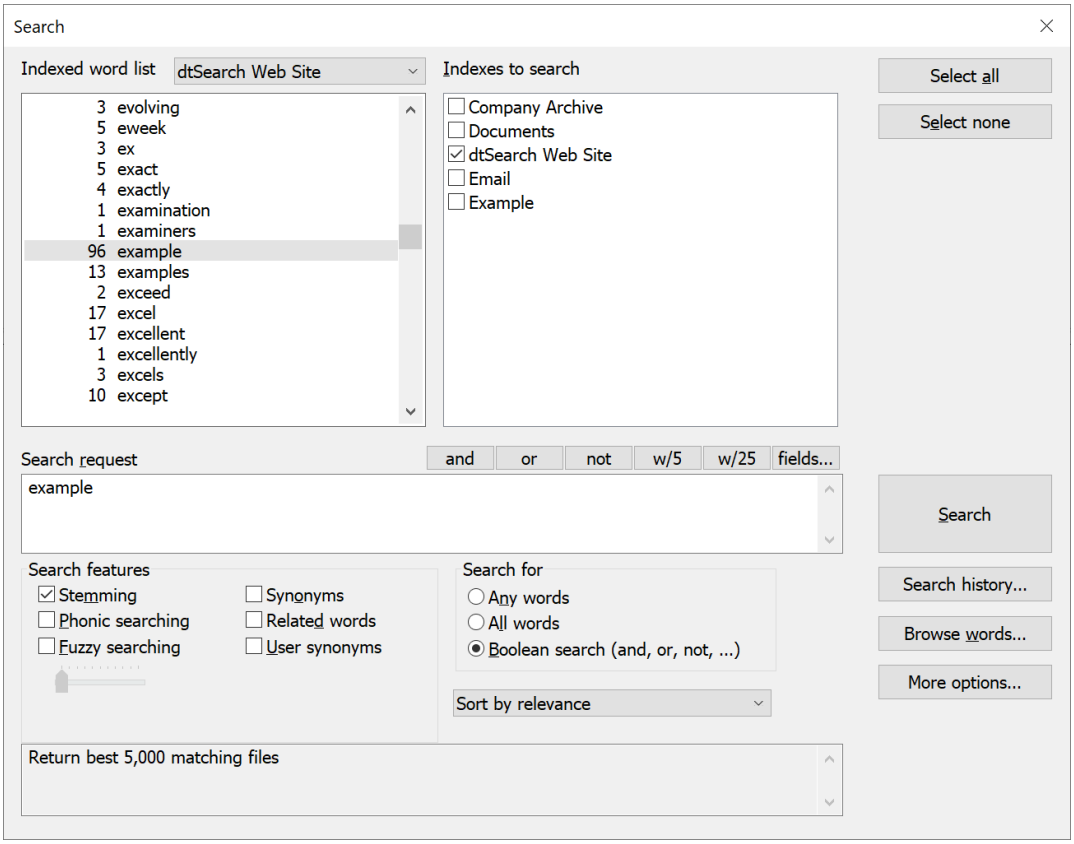
Supported File Types For a list of the file formats that dtSearch supports, see "What file formats does dtSearch support" at https://support.dtsearch.com.

Indexing Large Document Collections For suggestions to improve indexing of large document collections, see "Optimizing indexing of large document collections" at https://support.dtsearch.com.

Searching using the Index

1. Click the **Search** button on the dtSearch toolbar, or press Ctrl+S, to open the **Search** dialog box.

   Indexes to search
   The top right of the dialog box shows a list of the indexes you have created; select one or more to search.
   Indexed word list
   The top left of the dialog box shows a list of the words in the currently selected index. If more than one index is selected for searching, you can select the index to display in the word list by clicking the down arrow above the word list.



2. Enter a search under **Search request**.
3. Select any items under **Search features** (such as fuzzy searching) that you want to use.
4. Click **Search** to begin the search.

Search Types

Any words or All words

Finds a list of words or phrases

- use "quotation marks" around phrases
- add + in front of any word or phrase to require it
- add - in front of any word or phrase or to exclude it
- examples:
  `banana pear "apple pie"`
  `"apple pie" -salad +"ice cream"`

Boolean search

Finds a structured group of words or phrases linked by *and*, *or*, *not*, *w/*.

- Examples:
  `tart apple pie` – the entire phrase must be present
  `apple pie and pear tart` – both phrases must be present
  `apple pie or pear tart` – either phrase must be present
  `apple pie and not pear tart` - only ***apple pie*** must be present
  `apple w/5 pear` – ***apple*** must occur within 5 words of ***pear***
  `apple not w/27 pear` - ***apple*** must not occur within 27 words of ***pear***
  `subject contains apple pie` – finds ***apple pie*** in a ***subject*** field
- Use ( ) when a search includes two or more connectors:
  `apple and pear or orange` could mean ***(apple and pear) or orange***, or it could mean ***apple and (pear or orange)***

Search Features

Stemming

Finds grammatical variations on endings, like *applies*, *applied*, *applying* in a search for *apply*

Fuzzy searching

Finds words even if they are misspelled. A search for *alphabet* with a fuzziness of 1 would also find *alphaqet*. With a fuzziness of 4, the same search would find both *alphaqet* and *alpkaqet*

Phonic searching

Finds words that sound alike, like *Smythe* in a search for *Smith*

Synonym searching
Finds word synonyms using a comprehensive English language thesaurus or user-defined custom thesaurus terms

Special Characters

? matches any single character
appl? matches ***apply*** or ***apple***
* matches any number of characters
appl*ion matches ***application***
~~ indicates numeric range
14~~18 looks for ***14, 15, 16, 17*** or ***18***
= matches any single digit
p12== matches ***p1234***

Variable term weights
A number after a word assigns a specific positive or negative weight when ranking retrieved documents.
Example: `apple:5 salad:-2`

More Search Options

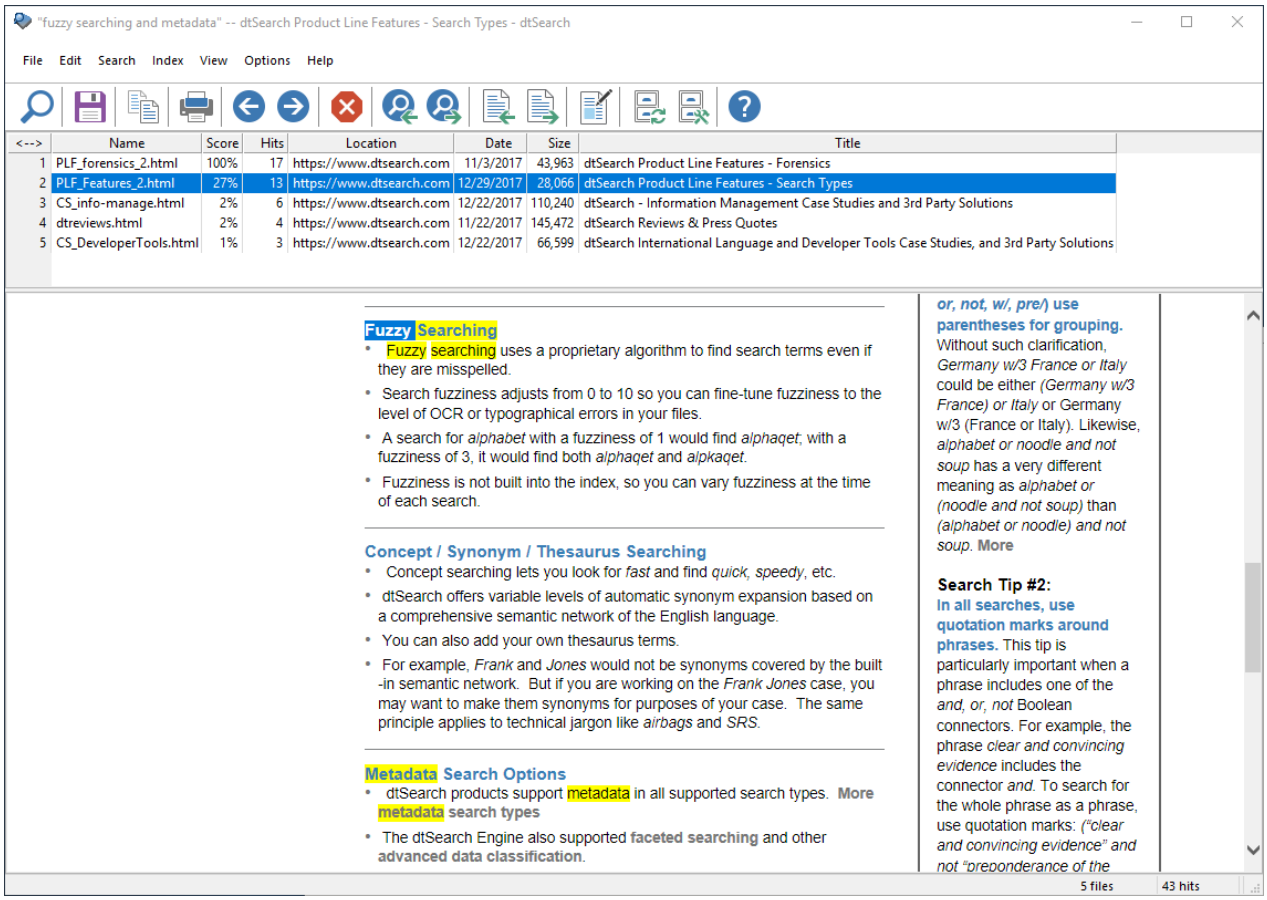
To search without an index, or to search by filename, date, or size, click the **More Search Options** tab.

To view or reuse a prior search request, click the **Search History** tab in the **Search** dialog box.

For information on forensic searching, see **Forensics-related features**

Viewing Search Results

After a search, dtSearch will display the results of the search. The top half of the dtSearch window will list all of the files retrieved in the search, and the lower half will show the first document in the list, with hits highlighted.



1. To select a document to view from the search results list, double-click on it.
2. To jump to the next hit in a document window, click **Next Hit** on the button bar (or press SPACEBAR).

   Click the **Next Doc** button (or press CTRL+SPACEBAR) to go to the next document.
3. To change the way search results are sorted, click on one of the column headers (**Name**, **Score**, **Location**, **Date**, etc.).
4. Click the **Launch** button (or press F8) to open a document in the application associated with it. For example, a Word document would be launched in Microsoft Word.

See "Keyboard shortcuts" in the on-line help for a complete list of keyboard shortcuts.

Create a Quick Summary of Your Search Results

An easy way to see the hits in all retrieved documents is to build a search report. A search report shows all hits along with the amount of context that you request.

1. Click **Search > Search Report**. The **Generate Search Report** dialog box will appear.
2. Enter the number of words (or paragraphs) of context that you want dtSearch to include in your search report and click OK to generate the report.
3. The search report will open in your word processor so you can edit or print it.

Installing dtSearch on a Network

To install dtSearch on a network, you can either set up dtSearch to run from a shared directory or you can install dtSearch on each user's computer.

If dtSearch is installed separately on each user's computer, it will generally load faster because local disk access is faster. In either case, users can use shared index libraries or **Recognize Index** in the **Index Manager** to access shared network indexes.

See "Automatic deployment of dtSearch on a network" for information on deploying dtSearch using MSI files.

Running dtSearch from a shared network folder

To set dtSearch up to run from a shared network folder,

1. Install dtSearch in a folder on the server that each user will have read-only access to.
2. Client computers may need to install two Microsoft packages that supply software components that dtSearch depends on. See "System Requirements" below for details.
3. Create shortcuts for network users to run dtsrun.exe, dtSearch64.exe, or dtsearchw.exe.
4. Use command-line options in the shortcuts to specify options to control how dtSearch runs (see below).

Command-line options

/dir <folder>
Specifies a location for the user's personal dtSearch folder, if one is not already set up for that user. If the /dir command-line switch is not provided, dtSearch will see that is being run from a read-only directory and prompt the user for a folder to use for personal dtSearch settings. Using /dir prevents this prompt from occurring. Once a personal dtSearch folder is created, the location is stored in the registry and the user will not be prompted again for a dtSearch folder.

/dirstd
Specifies that the default location should be used for the personal dtSearch folder, if one is not already set up. [dtSearch 2022.01 and later]

/noupd
Suppresses the prompt to check for updates. [dtSearch 2022.01 and later]

/agreetolicense
Consent to the end-user license agreement without prompting. [dtSearch 2022.01 and later]

/sn xx-xxxx...
Apply a serial number if this installation does not already have one. [dtSearch 2022.01 and later]

/lib <index library>
Specifies a shared index library providing a list of indexes.

/cfg <options package>
Specifies a dtSearch options package file, providing a list of indexes as well as other settings (such as default stemming rules).

Examples

Suppose dtSearch is installed in a network drive that all users see as P:\dtSearch and that the network administrator's settings will be in P:\dtSearch\UserData. The network administrator has created some shared indexes, which will be listed in the index library P:\dtSearch\UserData\ixlib.ilb. The following shortcut will start dtSearch from any network workstation, with access to the indexes:

```
P:\dtSearch\bin\dtsrun.exe /dirstd /lib P:
\dtSearch\UserData\ixlib.ilb
```

Now suppose that instead the network administrator installed dtSearch in P:\Program Files\dtSearch. The shortcut should be modified to use quotation marks around all filenames, because of the space in "Program Files":

```
"P:\Program Files\dtSearch\bin\dtsrun.exe" /dirstd /lib "P:\Program
Files\dtSearch\UserData\ixlib.ilb"
```

System Requirements

dtSearch requires the 64-bit and 32-bit versions of the "Microsoft Visual C++ Redistributable Packages", which are available from Microsoft at these links:
https://aka.ms/vs/17/release/vc_redist.x86.exe (Microsoft 32-bit Redistributable Download)
https://aka.ms/vs/17/release/vc_redist.x64.exe (Microsoft 64-bit Redistributable Download)

The dtSearch installer includes both of these packages and will install them with dtSearch they are missing or out of date.

If you are running dtSearch from a shared folder without installing it on each computer, then these components may need to be installed so dtSearch can run. For more information on these components, please see: Redistributing Visual C++ Files (microsoft.com).

Automatic deployment of dtSearch on a network

System Requirements

Two MSI files are used for automatic deployment: the dtSearchDesktop.msi file, which contains the program files, and the dtSearchPolicy.msi file, which contains the settings for your network installation. These files can be deployed and redeployed separately, so you can upgrade your dtSearch installation without losing your settings, and you can update your settings without the need to reinstall dtSearch.

Note: Some users may require updated versions of certain Windows components to use dtSearch. Please see dtSearch software dependencies for more information.

Steps to deploy dtSearch

1. Obtain the dtSearchDesktop.msi file that installs dtSearch Desktop.

2. Create one or more shared index libraries on a network share.

3. Create one or more shared indexes on a network share.

4. Create a dtSearchPolicy.msi file that will configure your users' machines with information about the location of the shared index libraries.

5. Use Active Directory or Microsoft SMS to deploy the dtSearchDesktop.msi and dtSearchPolicy.msi files to your users.

Each of these steps is described below.

1. Obtain the dtSearchDesktop.msi file that installs dtSearch Desktop

Open the dtSearch download file in WinZip or any other ZIP-compatible program to extract dtSearchDesktop.msi. (The download file is in ZIP format even though it is an .exe file.) Copy the dtSearchDesktop.msi file to a network folder.

2. Obtain the Microsoft Windows components needed by your version of dtSearch

In addition to the dtSearchDesktop.msi file, the dtSearch download file will also contain two Microsoft components named vc_redist.x86.exe and vc_redist.x64.exe. Please see dtSearch software dependencies for more information about these files and links to the latest versions from the Microsoft web site. These files should also be deployed along with the .msi file to make sure dtSearch has all required dependencies.

3. Create one or more shared index libraries on a network share

An index library is just a list of index locations. Once you create a shared index library, you can add indexes to it later and users will automatically see the updated list. To create an index library, click **Index > Index Manager** > **Index Library Manager,** and click **Add Library** to create an empty index library.

4. Create one or more shared indexes on a network share

Click **Index > Create Advanced** to create a new index and specify that it should be added to the shared library that you created in the previous step. You can also use Index Library Manager to add existing indexes to the shared library, as long as these indexes are also in a network folder.

5. Create a dtSearchPolicy.msi file

To create a dtSearchPolicy.msi file, click **Options > Create Group Policy...** in dtSearch Desktop. A dtSearchPolicy.msi file can specify the following settings:

Serial number
You can use a single serial number to register as many user installations as your license covers. Providing a serial number in the Group Policy file eliminates the need for users to enter serial numbers themselves.

Shared index libraries
Specify the index libraries that should be included with this Group Policy. Once the index libraries have been set up, you can add or remove indexes in the libraries, and network users will automatically see the updates in their Search dialog box.

Specify where each user's settings should be stored
When first installed, dtSearch will prompt a user for the location of the folder for the user's settings. Specifying the folder in the Group Policy eliminates the need for this prompt.

After setting up the Group Policy, click **Save As** to save the .MSI file to a location on your network that your users will be able to access.

6. Deploy the dtSearchDesktop.msi and dtSearchPolicy.msi files to your users.

When the steps above are done, you will have two MSI files in a network folder: dtSearchDesktop.msi (the program files), and dtSearchPolicy.msi (the settings for your network). It does not matter which MSI file is installed first, and you can uninstall and reinstall, or redeploy, either MSI file without affecting the other.

Command-Line Options

dtSearch Programs

Program	Purpose
dtsearchw.exe	dtSearch Search (32-bit)
dtSearch64.exe	dtSearch Search (64-bit)
dtsrun.exe	Launcher to start either the 64-bit or 32-bit version of dtSearch
dtindexerw.exe	dtSearch Indexer (32-bit)
dtindexer64.exe	dtSearch Indexer (64-bit, requires 64-bit version of Windows)
dtinfo.exe	dtSearch diagnostic tools

dtSearch Desktop Search Options

Switch	Purpose
/agreetolicense	Consent to the license agreement without prompting [dtSearch 2022.01 and later]
/noupd	Suppress prompting to check for updates [dtSearch 2022.01 and later]
/sn xx-xxxx...	Apply a serial number if this installation does not already have one [dtSearch 2022.01 and later]
/lib [index library]	Specify a shared index library to use for searching
/dir [folder]	Specify a user data folder to use for settings files
/dirstd	Use the default user data folder to use for settings files (%LOCALAPPDATA%\dtSearch) [dtSearch 2022.01 and later]
/cfg [options package]	Specify an options package file to use
/xl	Do not use index libraries other than the one specified on the command-line for searching

The /xl command-line switch is used with the /lib or /cfg switch to prevent indexes other than the ones specified on the command-line from being visible in the Search dialog box.

The /dir command-line switch has no effect if a dtSearch folder already exists on the computer. It is used when running dtSearch from a network to specify a default local folder to use for dtSearch settings. See "Installing dtSearch on a Network" for more information.

dtSearch Indexer Options

Switch	Purpose
/i [index path]	Specify the index to be updated
/a	Index new or modified documents
/c	Clear the index before adding documents
/cat	Enable caching of text in the index (when used with /c)
/cad	Enable caching of original documents in the index (when used with /c)
/mt	Use the multithreaded indexer (64-bit only)
/r	Remove deleted documents from the index
/recog [index path]	Recognize an index (can be combined with /c to create an index and recognize it)
/o	Compress the index after adding documents

Filenames or directories that contain spaces should be quoted in command lines. If the path to dtIndexerw.exe contains a space, it should also be quoted, like this:

```
"C:\Program Files (x86)\dtSearch\dtIndexerw.exe" /i "C:\Program Files\dtSearch\UserData\MyIndex" /c /a
```

Keyboard Shortcuts

Document Windows

Key	Purpose
Ctrl+Shift+Up or Ctrl+Plus	Zoom in
Ctrl+Shift+Down or Ctrl+Minus	Zoom out
Spacebar	Next hit in document
Backspace	Previous hit in document
Tab or F6	Switch to search results window (see Window Navigation below for more navigation shortcuts).
F7	Enable or disable caret browsing
Ctrl+Spacebar	Next document in search results
Ctrl+Backspace	Previous document in search results
Ctrl+Home	Top of document
Ctrl+End	End of document
Ctrl+K	Advanced copy
Ctrl+P	Print document or, if text is selected, print selected block
Ctrl+R	Toggle report view, showing just the hits with a selectable amount of context
Ctrl+Y	View all document properties in a sidebar window as formatted text that you can copy and paste

Search Results Windows

Key	Purpose
Enter	Open current document
F8	Launch current document
Tab or F6	Switch to document window

Key	Purpose
Ctrl+P	Print document or, if text is selected, print selected block
Ctrl+Q	Check or un-check the checkbox next to the current item in search results

Window Navigation

Key	Purpose
Ctrl+Alt+M	Navigate to main menu
Ctrl+Alt+D	Navigate to document window
Ctrl+Alt+R	Navigate to search results
Ctrl+Alt+Y	Navigate to document information

Other Keyboard Shortcuts

Key	Purpose
Ctrl+S	Search
Ctrl+Shift+S	Search in a new window
Ctrl+H	Search History
Ctrl+I	Index Manager
Ctrl+U	Update Index
Alt+Down	Browse for file or folder
Ctrl+Tab	In Preferences dialog box, switch to next tab.
Alt-X	Close application
Alt-Space	In a dialog box, open the menu to resize, minimize, maximize, or close the dialog box.

Indexes

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 noise 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 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. In general, the more documents in the index, the smaller the index will be as a percentage of your original documents.

Creating an Index

Menu option: **Index > Create Index**

Name
Enter the name of the index as it should appear in the Search dialog box.

Location
Enter the directory where dtSearch should store the index. By default, dtSearch will create indexes in your "UserData" folder. To specify a different location, click Options > Preferences > Indexing Options.

Logging
A **Summary only** log shows the number of files added or removed and a list of any files that could not be indexed. A **Detailed** log adds a list of every file added to the index.

Advanced Options

Menu option: **Index > Create Index (Advanced)**

Cache document text in the index
Cache documents in the index
dtSearch indexes can store documents in either, or both, of two ways: (1) the entire original file can be stored, or (2) just the text of the file can be stored. Stored documents and text are compressed using ZIP compression. Storing the *text* of documents makes generation of search reports much faster, especially generation of the brief hits-in-context snippet in search results. For more information, see: Caching Documents and Text in an Index

Case-sensitive
Check this box 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. This option is not recommended because most users would like to retrieve a document containing ***Apple*** in a search for ***apple***.

Accent-sensitive
Check this box if you want dtSearch to take accents into account in indexing words. Again, for most users this is not recommended, because this option increases the chance that you will miss retrieving a document if an accent was omitted in one letter.

Support optional accent sensitivity
When you select an accent-optional index for searching, the Search dialog box will show a new option "Accents in search terms are significant". In an accents-optional index, accented letters can be made significant for matching purposes, but unaccented letters will still always match both accented and unaccented forms. For example, a search for

abc will find both ***abc*** and ***äbc***. A search for ***äbc*** will find different results depending on whether the "Accents in search terms are significant" box is checked. If the box is checked, then ***äbc*** and will match ***äbc*** and will not match ***abc***. If the box is not checked, then ***äbc*** will match both ***äbc*** and ***abc***.

Make index compatible with an existing index

This provides a way to use existing indexes as templates for new indexes without the need to specify all of the relevant settings each time you create an index. All of the settings in the Options > Preferences > Letters and Words dialog box will be copied into the new index.

Fields to display in search results
List the names of fields in your documents that you want to include in the search results list, along with other document properties such as the filename and date.

Select the index libraries that should include this index
When you create a new index, it is usually added to your default index library. The Create Index (Advanced) dialog box lets you add the index to other libraries in one step. This can be useful when you are sharing indexes on a network.

Caching Documents and Text in an Index

In addition to storing word locations to enable fast searching, dtSearch indexes can also store the text of documents to make them open faster after a search. dtSearch indexes can optionally store documents in either, or both, of two ways: (1) the entire original file can be stored, or (2) just the text of the file can be stored. Option settings in the "Create Index (Advanced)" dialog box enable these features when an index is created.

Storing the *text* of documents makes generation of search reports much faster, including generation of the brief hits-in-context synopsis in search results.

Storing *complete documents* is useful in situations where the documents may not be accessible at search time, or where access to the documents may be slow or unreliable. Examples include:

- Indexes of web sites created using the dtSearch Spider

- Indexes of Outlook message stores

- Indexes of network shares that may be offline or inaccessible for other reasons

Performance Implications of Caching Documents and Text

Search speed: No effect.

Search reports: Substantially faster if text is stored; no effect if only complete documents are cached.

Opening documents after a search: Can be substantially faster if complete documents are cached, and if access to the original documents is slow (for example, on a web site).

Indexing speed: Indexing will be slower due to the need to compress and store additional data in the index.

Index size: Cached documents and text are compressed using ZIP compression.

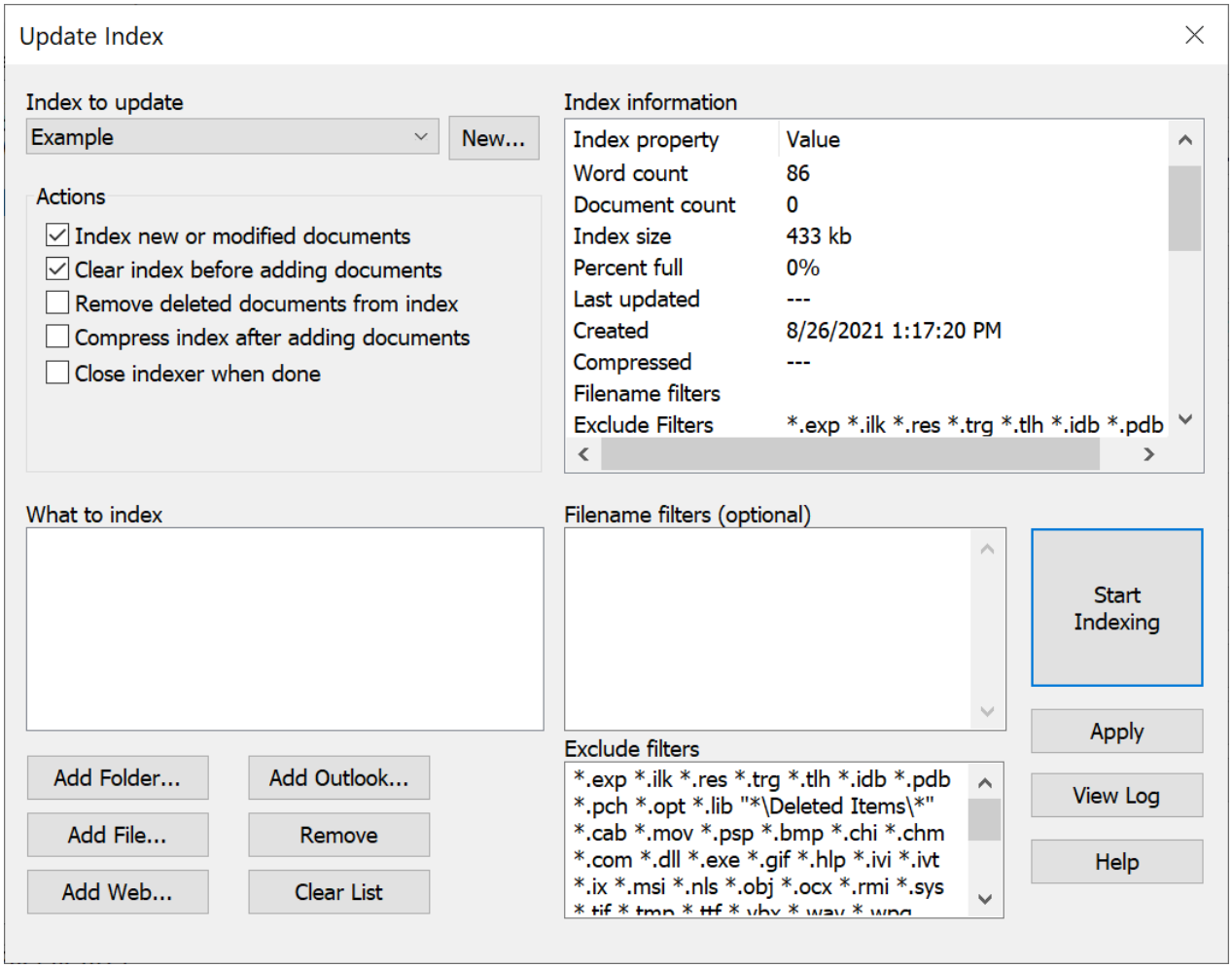
Security Implications of Storing Documents and Text

A user who is able to search an index will also be able to open any documents that are cached in the index. Therefore, if documents are subject to security restrictions, the same security restrictions should apply to the index folder, if the documents are being stored in the index.

Indexing Documents

To add documents to a new index:

1. Click **Index > Create Index** to create the new index. Enter the name of the index to create and click OK.
2. dtSearch will ask if you want to add documents to the index. Click **Yes**.



3. In the Update Index dialog box, click **Add Folder...** or **Add File...** to add folders or files to be indexed. You can also drag and drop files or folders from Explorer into the "What to index" box. A "<+>" after a folder name means that subfolders will also be indexed. Right-click a folder name and select "Include subfolders" or "Do not include subfolders" to add or remove the <+> mark.
4. (Optional) Under **Filename filters**, enter filters (*.DOC, *.TXT, etc.) to select documents to add. If you leave this blank, dtSearch will index all of the files

in the directories you selected. Under **Exclude filters**, enter filters (such as *.EXE) for any files you do not want to include in the index.

5. Click **Start Indexing.**

To update an existing index:

1. Click **Index > Update Index**.
2. Select the index to update from the list.
3. Make any changes to the list of folders to be indexed. Click **Remove** to remove the selected folder or **Add Folder...** to add a folder.
4. Check **Index new or modified documents** if it is not already checked.
5. If you have deleted or moved some files that were in the index and you want to remove them from the index, check **Remove deleted documents from index**.
6. If you have updated the index several times, you may want to check **Compress index after adding documents**. Compressing an index optimizes the index structure, removing obsolete data and defragmenting search structures for better performance. Obsolete data comes from documents that are reindexed and from documents that are removed from the index. In both cases, the data is not removed from the index but is tagged as "obsolete" for removal the next time the index is compressed. It can take a while (dtSearch completely reconstructs the index) but it makes the index smaller and makes searches faster.
7. Click **Start Indexing**.

To schedule updates to occur automatically, see "Scheduling Index Updates."

To rebuild an index:

To tell dtSearch to rebuild an index, check the **Clear index before adding documents** box, check the **Index new or modified documents box**, and click **Start Indexing**.

To update multiple indexes:

To update more than one index at a time, click **Index > Index manager...** and then click the **Update Multiple Indexes...** button. Check the box next to each index to be updated, and check the boxes indicating the tasks to be performed, and click **Start Indexing.**

Notes

Supported File Types
For a list of the file formats that dtSearch supports, see "What file formats does dtSearch support".

Indexing Large Document Collections
For suggestions to improve indexing of large document collections, see "Optimizing indexing of large document collections" at https://support.dtsearch.com.

UNC Paths
To index documents using UNC paths rather than mapped letter drives, select folders under **Network Neighborhood** in the **Add Folder** dialog box. You can also convert a network folder in the **What to index** list to UNC format. To convert a network folder name to UNC format, right-click the folder name you want to convert and choose **Make UNC** from the menu that pops up.

Subfolders
A "<+>" after the folder name indicates that subfolders will also be indexed. To remove the <+> mark after a folder name, right-click on the folder name and choose **Do not index subfolders** from the menu that pops up.

Disk Space
An index is usually about one-third to one-fourth the size of the original documents, though this can vary depending on the number and type of documents.

Indexing Documents on Removable Drives
When an index contains documents stored on floppy disk or other removable media such as a CD-ROM, make sure that **Remove deleted documents from index** is not checked when you update the index. 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 labeled 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 search results.

Relative Paths
When documents are on the same drive as the index, dtSearch will automatically use relative paths to store document locations. If you add c:\Sample\Documents\smith.doc to an index in c:\Sample\Index, the index will store the document path as .. \Documents\smith.doc.

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
```

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

Spaces in Filters

If a filename filter contains a space, it must be quoted to make it clear that the space is part of the filter and not a delimiter between two filters. Examples:

```
"*\Sample Folder\*"
"*Sample name*.doc"
```

Folder Names

If a filename filter contains a \ character or /, it is matched against the entire name of the document, including the folder it is in. A filename filter that does not contain a / or \ is matched against the filename without the path. Example:

```
*\Example\*
```

would match any file in a folder named "Example".

```
*Example*
```

would only match if "Example" was part of the filename, not including the path.

The same rule applies to web addresses indexed by the Spider, so if you add */NotThisFolder/* to your Exclude Filters, it would skip anything under https://www.example.com/NotThisFolder.

ZIP Archives

Inside ZIP archives, ***exclude*** filters apply in the same way that they apply to other files. For example, if you exclude *.XLS, then sample.xls inside sample.zip would be skipped.

Include filters only apply inside a ZIP archive if they have a special format that indicates that they are supposed to apply to zipped files. Otherwise, all files inside a ZIP are assumed to be included. The format for include filters inside a ZIP is:

```
*.ZIP>*.DOC *.ZIP>*.XLS *.ZIP>*.PDF
```

This filter would include only files named *.DOC, *.XLS, and *.PDF that are inside a ZIP archive. To specify that items inside nested ZIP archives should also be indexed, the include filter would be:

```
*.ZIP>*.DOC *.ZIP>*.XLS *.ZIP>*.PDF *.ZIP>*.ZIP
```

Scheduling Index Updates

Menu option: **Index > Index Manager > Schedule Updates**

To update an index automatically:

1. Click the **Schedule Updates** button in Index Manager.
2. Click **New Task** to create a new index update task. (You can also click **Modify Task** to change a pre-existing task or click **Delete Task** to remove a task.)
3. Select the indexes to be updated from the list, and check the indexing actions to be scheduled.
4. Click the **Next >>** button. The indexing task will open in the Windows Task Scheduler. Click the **Schedule** tab to set up the schedule for this task.

To access scheduled tasks directly, open Windows **Task Scheduler** (click **Start** and type "Task Scheduler").

For each task, Task Scheduler lists the "Last Result". A value other than zero indicates an error. If the error code is 8D (141), dtSearch does not have a folder set up for your personal settings. To fix this, run the dtSearch Desktop search program and specify a location for your dtSearch files. For more information, see Settings Files. If the error code is 8F (143), the index could not be accessed, which may be because of a network or security issue or because the index is damaged or missing.

Relative Paths

A relative path is a way to specify the location of a directory relative to another directory. For example, suppose your documents are in C:\Sample\Documents and your index is in C:\Sample\Index. The absolute path for the documents would be C:\Sample\Documents. The relative path from C:\Sample\Index to C:\Sample\Documents would be ..\Documents.

When documents are on the same drive as the index, dtSearch will automatically use relative paths to store document locations. If you add c:\Sample\Documents\smith.doc to an index in c:\Sample\Index, the index will store the document path as .. \Documents\smith.doc. The relative path is more flexible because, if you move the entire C:\Sample directory to another location such as J:\Sample or C:\Smith\Sample or H: \Sample, the relative paths to the documents would remain valid.

Relative paths are useful for shared indexes on networks when a physical drive uses a different drive letter for different users. For example, some users might see a drive as S: while other users see it as T:. As long as documents reside on the same drive as their index, dtSearch can use relative paths to prevent such drive mapping problems.

Relative paths are also useful for text database publishers who want to distribute a package with text and an index. If the index is built using the relative paths option, users will be able to install the package on any drive and in any directory without affecting the validity of the index.

The table of indexes in an index library stores index directories relative to the location of the index library.

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 time, noise words are not indexed and are ignored in index searches.

When you search for a phrase with a noise word, dtSearch ignores the noise word in the phrase and just searches for the other words. For example, if you search for "the car", dtSearch will just search for "car".

To modify the list of words defined as noise words, click **Options > Preferences > Letters and Words**, and click the Edit button next to the noise word list name.

The words in the noise word list do not have to be in any particular order, and can include wildcard characters such as * and ?. However, noise words may not begin with wildcard characters.

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

Indexing Web Sites

Using the Spider to Index Web Sites

To index a web site with dtSearch, click **Add web** in the **Update Index** dialog box. You can do this multiple times to add any number of web sites to an index. To modify a web site in the Update Index dialog box, right-click the name in the **What to index** list and select **Modify web site**.

When indexing using the Spider, it is usually a good idea to enable caching of documents and text in the index, so dtSearch can highlight hits from the cached data. This ensures that you can search and browse results even if you cannot access the site.

To index an entire web site using a sitemap, enter the URL of the sitemap as the start page. Example: https://www.example.com/sitemap.xml. dtSearch supports XML and compressed (.gz) sitemaps. For more information on sitemaps, see https://www.sitemaps.org.

If you have problems accessing the site using the Spider, try changing the "User agent identification" to Internet Explorer. Some sites vary their appearance based on the user's browser, and if the site does not recognize the user agent name, it may return incorrect pages or fail to respond.

Limiting the Spider

To limit the Spider to particular areas of the site, use the **Filename filters** and **Exclude filters** in the **Update Index** dialog box. A filter with a / will be matched against the complete URL, so a filter of */OnlyThisOne/* would limit the indexer to documents under the "OnlyThisOne" folder. The Spider will also obey any instructions in a robots.txt file on the web site or in a robots meta tag. For more information on robots.txt and robots meta tags, see https://www.robotstxt.org.

Starting page for web site
This is the first page dtSearch will request from the site to start the crawl. Usually this will be the home page of the web site.

Crawl depth
The crawl depth is number of levels into the web site dtSearch will reach when looking for pages. When dtSearch indexes a web site, it starts from the page you specify, indexes that page, and then looks for links from that page to other pages on the site. For each of those pages, it looks for links to still more pages. With a crawl depth of zero, dtSearch

would index only the starting page. With a crawl depth of 1, dtSearch would index only pages that are directly linked to the starting page.

Authentication settings and **Passwords...**
If the site requires authentication, click **Passwords...** to set up a username and password.

Allow the Spider to access web servers other than the starting server
By default, the Spider will not follow links to servers other than the starting server. For example, if the start page for the crawl is www.dtsearch.com, the Spider will not follow links to support.dtsearch.com. To enable the Spider to follow links to other servers, check this box and list the other servers to include. You can use wildcards to specify the server names to match. For example, *.dtsearch.com would match www.dtsearch.com, support.dtsearch.com, and download.dtsearch.com.

Stop crawl after __ files
Use this setting to limit the number of pages the Spider should index on a web site.

Stop crawl after __ minutes
Use this setting to limit the amount of time the Spider will spend crawling pages on a web site.

Skip files larger than __ kilobytes
Use this setting to limit the maximum size of files that the Spider will attempt to access.

Time to pause between page downloads
Requiring the Spider to pause between page downloads can reduce the effect of indexing on the web server.

User agent identification
Some web sites behave differently depending on the web browser being used to access them. For these sites, you can use the User agent identification to specify a user agent name (for example, Internet Explorer) for the Spider to use, so the Spider will index the same view of the web site that users see with a web browser.

Spider Options

Menu option: **Options > Preferences > Spider options**

Automatically log on to web sites on my local area network
When you index web sites on your local area network, dtSearch can attempt to log on to the sites using your Windows username and password. Un-check this box if you would prefer not to use your Windows username and password to log on this way.

Logon even if a site only supports non-secure authentication methods
Some web sites only support "Basic" authentication, a type of authentication that requires your password to be sent across the internet without encryption. Un-check this box to prevent dtSearch from logging on to a site that does not support secure authentication methods.

Do not prompt for a password if access to a site is denied
If the dtSearch Spider receives an "Access denied" response from a web site when it tries to download a page, and if no password is found for the site in the web site options, then the Spider will prompt for a user name and password to access the page. Check this box to prevent password prompts so that the Spider will continue without interruption.

Use Internet Explorer to download web pages
The dtSearch Spider will use the WinHTTP library to download web pages, unless this box is checked. Use this option if you want the dtSearch Spider to use your Internet Explorer browser settings to access the internet (for example, to use a proxy server).

Log the links found on each page in spiderlog.txt
To determine how the Spider found a particular page or file on a web site, check this box before indexing the site. After the index is built, the file spiderlog.txt in the index folder will contain a list of every link found on every page indexed.

Folder to use for temporary files
By default, dtSearch will use a sub-folder under your Windows "TEMP" folder for temporary files downloaded by the Spider. You can specify a different location here if there is not enough space on the drive where your TEMP folder is located.

Timeout limit for downloading pages
This is the maximum amount of time that you want the Spider to wait for a web page to download before giving up and moving on to the next page.

Spider Passwords

Menu option: **Options > Preferences > Spider passwords**

You can use the **Spider passwords** settings to store a user name and password for sites that require login. Note that any password information you store this way will be accessible to anyone else who uses this computer, or who has access to your files.

Server
This is the name of the server where the web site is located. This should be the domain name only, without the "https://" or any filename or folder information.

Ask for password when needed
Check this box to have dtSearch prompt for a password when a site requires you to log in. You will have to enter the password each time you index the site, and dtSearch will not save your password information.

Username
Password
These are the username and password to login for this server. If you leave this setting blank and check the **Ask for password when needed** box, then dtSearch will ask for a username and password when it accesses the site, if a password is needed. If you fill in a password, dtSearch will remember the password so you can index or search on this server without entering a password each time.

Note: Passwords are saved without encryption, so anyone who has access to your computer may be able to read them.

Sharing Indexes on a Network

Creating a Shared Index

Any dtSearch index that is located on a network drive can be shared with other users. To create a shared index, click **Index > Create Index** and under **Location** specify a location that other network users will be able to access.

Once the shared index is created, other users can use **Index > Recognize Index** to access the index.

To share multiple indexes, you can either use a shared index library or you can create a shared options package that includes the indexes to share.

Drive Mapping. To avoid possible drive mapping problems, build an index on the same drive as the documents it indexes. This prevents drive mapping problems because dtSearch uses relative paths rather than absolute paths in indexes.

Concurrent Access. dtSearch allows any number of users to search an index at the same time. Only one user at a time can update or compress an index, so when a user is updating an index, other users will be able to search but not update the index.

Security and access limitations

Write and read access to shared indexes is controlled by folder permission settings. If an index is stored on a network drive, any user who has write access to the folder 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) that do not require write access.

It is preferable to make the security settings on each index match the security settings on the documents. This is especially important if an index is created with caching of documents or text enabled, because when documents are cached in the index they are accessible to anyone who can access the index, regardless of the security settings on the original documents. For more information on caching of documents, see: Caching Documents and Text in an Index.

A common way to handle categories of documents with different security settings is to set up a different index for each category of documents, and to give each index the same security rights as the documents that it covers. This way only users who have access to the documents will be able to search the index.

Sharing Option Settings

Menu option: **Options > Create Options Package**

An options package is a file that you can use to share some or all of your dtSearch option settings, such as macros or file segmentation rules, with other users on a network. An options package can also contain links to shared indexes.

Creating an Options Package

To create an options package,

1. Select the type of package you want to create.
   A **Temporary** package lets other users run dtSearch with the settings you specify without changing their own settings. When a user opens a temporary package, dtSearch will apply the settings in the package only during that session, and will leave the user's own settings unchanged after dtSearch exits. A temporary package is a good way to give other users access to your indexes and settings without requiring them to change their own settings.
   A **Permanent** package will change the user's personal dtSearch settings to match the ones you added to the package. Settings such as macros or stemming rules will replace any settings the user already has. Indexes included in the package will be listed in a new index library that will be placed in the user's UserData folder. A permanent package gives network administrators an easy way to distribute a set of option settings throughout an organization.
2. Select the indexes to include in the package. The package will store the location of each index that you select, but will not include any of the index contents. Therefore, indexes selected should all be in shared network locations.
3. Select the option settings to include in the package. Any of the following settings can be included: stemming rules, user thesaurus, macros, file type definitions, file segmentation rules, text field definitions, external viewer settings, and display options.
4. Click OK to create the package.

Using an Options Package

To use an options package, browse to it in Windows Explorer and double-click on the name of the package.

When you open a "temporary" package, dtSearch will open with the settings in the package. The Search dialog box will contain only the indexes listed in the package.

When you open a "permanent" package, dtSearch will tell you which settings will be changed. You can then decide to (1) accept the changes, (2) run dtSearch with the changed settings on a temporary basis (as if the package was a temporary package), or (3) exit without changing anything.

Index Libraries

An index library is a list of 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 100 indexes, you do not need to worry about index libraries.

When you run dtSearch for the first time, dtSearch automatically creates a personal index library, named IXLIB.ILB, to hold any indexes that you create. Use **Index Library Manager** to create new index libraries, access shared index libraries on a network, and add indexes to or remove indexes from an index library.

Index Library Manager

Menu option: **Index > Index Manager > Index Library Manager**

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 your index libraries.

If you are not sharing indexes on a network, you can ignore index libraries. dtSearch starts out with a library called IXLIB.ILB that will hold any indexes that you create.

Most commonly, index libraries are used to create a shared list of indexes on a network drive. Another way to share indexes is to create a shared options package that includes index references.

Using the Index Library Manager

To **create a new index library,** click **Add Library** and enter the name of the library to create.

To **add a link to a shared network library**, click **Add Library** and browse for the shared library to add. When you find the correct library, click the **Open** button and the library will be added to your list of index libraries, and any indexes in that library will appear in your "Indexes to Search" list in the Search dialog box.

To **remove a link to a shared network library**, highlight the library to remove and click **Remove Library**. The library will not be deleted; it will just be removed from the list of libraries you are using in dtSearch.

To **add an index to the currently-selected library**, click the **Add Index...** button. Browse for the index to add and click **Open** when you find any of the files in the index (they will be named INDEX_I.IX, INDEX_N.IX, etc.).

To **remove an index from the currently-selected library**, highlight the index to remove in the list of indexes, and click **Remove Index**. To remove an index and delete it from the disk, click **Delete Index** instead of **Remove Index**.

To locate ***all*** indexes in a folder tree, click the **Find Indexes...** button and browse for the top-level folder to search. dtSearch will check for indexes in all of the folders and subfolders under that top-level folder and will add any indexes it finds to the current index library.

Default Library for New Indexes

Use the drop-down list at the bottom of the Index Library Manager to specify the index library to put new indexes into.

How to Set up Shared Indexes

1. Make a shared index library on the network. To do this, click the **Add Library** button to create a new index library named "Common" or "Shared".
2. Select this library as the "Working" library so you can add indexes to it.
3. If you already have indexes on the network to share, click **Add Index...** to add each of the indexes to the Common library.
4. Close **Index Library Manager** if it is open and create the indexes to share on the network. Ideally, each index should be on the same drive as the documents that it indexes, so drive mapping complications can be avoided. Each of the indexes you create will be added to the "Common" or "Shared" library.
5. Have each user link to the shared library.

You can also use command-line switches to specify a shared index library. See "Installing dtSearch on a Network" in this manual for more information.

Automatically Detected Libraries

Each time it runs, dtSearch automatically checks for an index library named IXLIB.ILB in your dtSearch "BIN" folder and in your "UserData" folder (the folder where your dtSearch personal settings are stored). To prevent dtSearch from doing this, un-check the box in Index Library Manager with the label **Automatically check for index libraries in the dtSearch program folder and in my UserData folder**.

Searching using dtSearch Web

dtSearch Web is a web server-based version of dtSearch. You can use dtSearch Desktop to search indexes on a dtSearch Web server, if the server administrator has set up the indexes to be accessible this way.

To access dtSearch Web indexes using dtSearch Desktop,

1. Open your web browser and go to the search form for the web site that you want to access.
2. Look for a **Get index library** link on the search form and click on it. If the link is not there, the administrator who set up dtSearch Web on the server did not make the indexes accessible through dtSearch Desktop.
3. When you click on the link, your browser will download a small text file named dtSearchWeb.ilb. Save this file anywhere and open it by clicking on it in Windows Explorer.
4. dtSearch Desktop will open and the indexes provided by the server will be listed in the Search dialog box with "(web)" next to them.

Once you have done this, your list of indexes in dtSearch will include the dtSearch Web indexes. To search the indexes, select them in the Search dialog box along with any other indexes that you want to search. To remove some of the indexes, or to rename them in your index library, use **Index Manager**.

Searches using dtSearch Web indexes will be similar to searching using local indexes, with a few differences. Because the index is located on a web server, the scrolling list of index words will be blank when you select a dtSearch Web index. When you click on a document in search results, the method used to highlight hits in the document will be determined by the web server, so any customizations you have done using the Display Options dialog box will not appear.

Working with Indexes

Index Manager

Menu option: **Index > Index Manager**

The Index Manager enables you to get information about each index you have created. To see information about an index, move the cursor to it.

Buttons in the Index Manager let you create, update, recognize, delete, rename, verify, or list the contents of an index.

Recognizing an Existing Index

Menu option: **Index > Index Manager > Recognize Index**

Recognize Index enables you to add an existing index to your index library, making it accessible for searching or indexing. This can be useful on a network if you want to be able to search an index that another user created on the network.

Use the **Recognize Index** 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_V.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.

Deleting an Index

Menu option: **Index > Index Manager > Delete Index**

Deleting an index does not affect the original documents. It just removes the index from your system. To delete an index, click the **Delete** button in the Index Manager, select the index to delete, and click OK.

Renaming an Index

Menu option: **Index > Index Manager > Rename Index**

To rename an index, select the index to be renamed, click the **Rename** button in the Index Manager dialog box, enter the new name for the index, and click OK. Note that the name of the directory in which the index is stored will not be affected.

Compressing an Index

When you reindex a document that you had previously indexed, dtSearch marks the information about the old version of the document as "obsolete" but does not remove it from the index. Compressing an index removes this obsolete information and also optimizes the index for faster searching.

To compress an index, check the **Compress index after adding documents** box in the Update Index dialog box.

Verifying an Index

Menu option: **Index > Index Manager > Verify Index**

To verify that an index is in good condition, click the **Verify** button in the Index Manager dialog box. 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.

To verify multiple indexes, click the **Update Multiple Indexes** button in the Index Manager dialog box, select the indexes to verify, and click the **Verify** button. dtSearch will verify all of the selected indexes and will generate an HTML report listing the condition of each index. Click **View Log** to view the result.

List Index Contents

Menu option: **Index > List Index Contents**

To see a list of words, files, or fields in an index, click the **List** button. To save the list to a text file, click the **Save...** button. If the list is very long, only partial results will appear in the display window due to memory limitations, but the list saved to disk when you click **Save...** will be complete.

Pattern to match
To limit the list to certain words or names, enter the pattern to match here. You can use the * and ? wildcard characters and you can also use stemming, fuzzy searching, and phonic searching, just as in the Search dialog box.

Include word counts
Check **Include word counts** to see the number of times each word occurs next to the word in the list.

Include field names
Check this box to see the fields that each word is found in.

Merging Indexes

Menu option: **Index > Index Manager > Merge Indexes**

To merge two or more indexes into a single index,

1. Choose the indexes to merge from the list.
2. Choose the index that you want the indexes merged into from the list under **Target index**. This list includes all of the indexes selected for merging.
3. To erase the contents of the target index before the merge, check **Clear target**.
4. Click **Merge** to start merging the indexes.

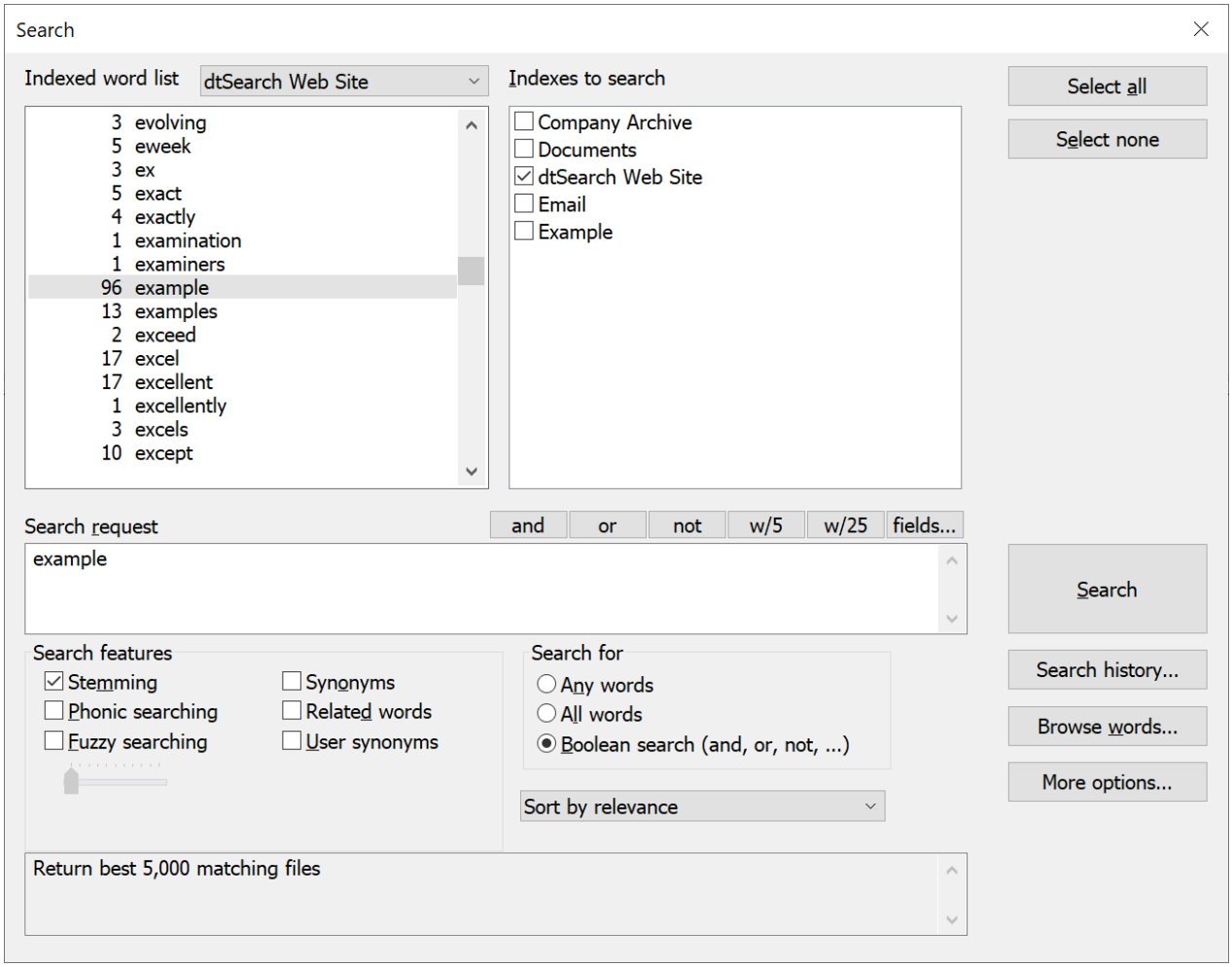
Merging multiple indexes into a new, empty index is generally faster than merging into an index that already contains data, unless the amount of data being merged is small relative to the size of the target index.

Merged indexes should be built with consistent settings to avoid incompatibility errors during merges. To ensure consistency when building indexes that will be used in a merge, use Create Index (Advanced), check the box to make the index compatible an existing index, and select the index to use for compatibility.

If you use dtSearch to merge new indexes into older existing indexes: Indexes created with dtSearch 7.93 will not be compatible with older indexes for purposes of merging indexes, unless you specify when you create the newer index that it must be compatible with the older index that will be included in or the target of the merge.

Searching for Documents

Search Dialog Box



First, tell dtSearch where you want to search

1. Under **Indexes to search**, click on the name of each index you want to search.
2. **To search without an index**, click the **More Options** tab. Under **Unindexed search options**, select whether you want to combine the unindexed search with an index search. Click the **Add Folder...** button to select the folders to search.

3. **To limit your search by filename, date, or size**, click the **More Options** button and then enter the criteria for your search. **More Options** also provides a way to limit the number of files retrieved to the most relevant.

Next, tell dtSearch what you want to find

1. Select one of the three search types:
   A boolean search request consists of a group of words, phrases or macros linked by search connectors such as AND and OR to precisely indicate the relationship between them.
   An "any words" search request consists of an unstructured natural language or "plain English" query. In an "any words" search request, words such as AND and OR are disregarded. Use quotation marks to indicate a phrase, + (plus) to indicate a word that must be present, and - (minus) to indicate a word that must not be present.
   An "all words"search is like an "any words" search except that all of the words in the search request must be present for a document to be retrieved.
2. Enter a search request in the space provided.
3. Select the search features to use in your search.
   Stemming searches other grammatical forms of the words in your search request. For example, with stemming enabled a search for ***apply*** would also find ***applies***. Click the drop-down list of languages to select a stemming language other than English.
   Phonic searching finds words that sound similar to words in your request, like ***Smith*** and ***Smythe***.
   Fuzzy searching sifts through scanning and typographical errors.
   Synonym searching tells dtSearch to use a thesaurus to find synonyms of words in your search request. dtSearch provides three ways to perform synonym searching:
   Check **Synonyms** to find synonyms using the WordNet concept network included with dtSearch.
   Check **Related words** to find related words from the WordNet concept network.
   Check **User synonyms** to find synonyms that you have defined in your own thesaurus.
4. Click **Search** to start the search.

Sorting Options

Sort by relevance
By default, dtSearch sorts retrieved documents by their relevance to your search request.

Weighting of retrieved documents takes into account: the number of documents each word in your search request appears in (the more documents a word appears in, the less useful it is in distinguishing relevant from irrelevant documents); the number of times each word in the request appears in the documents; and the density of hits in each document.

Sort by date
Select date sorting to get the most recent documents that match your search request, rather than the most relevant.

Sort by hits
Sorting by hits uses a simple count of the number of hits in each document (with no automatic term weighting) to rank retrieved files.

After the search is over, you can re-sort the results by clicking the column headers in the search results list.

Search Tools

Word List
At the top of the search dialog box is a scrolling list of the words in the index you have selected. Next to each word is a number, which is the number of times the word occurs in the index. As you type in a search request, the list will scroll to the word you are typing. If you have selected more than one index to be searched, you can pick the index listed in the word list from the drop-down list on top of the word list.

Fields
Click the **fields...** button to see a list of the searchable fields in the selected indexes.

Browse words
Click the **Browse Words...** button to see how dtSearch will search for words using fuzzy searching, phonic searching, stemming, or synonym expansion.

Thesaurus
Click the **Thesaurus...** button to browse the thesaurus.

Search history
Click the **Search History** button to see a list of your most recent search requests.

Searching within a previous search
After a search, click **Search > Search within these results** to do another search of just the documents retrieved in your previous search. You can also use **Search within these results** to search within the results of a search that you open from **Search History.**

Browse Words in Index

Menu option: **Search > Search > Browse Words**

Click **Browse Words...** in the search dialog box to see how dtSearch matches words in your search request with words in the index, using any combination of wildcards and fuzzy, phonic, stemming, or thesaurus search options. To see a list of matching words:

1. Type in the word you want to look up. The word can contain the wildcards * or ?.
2. Choose an index.
3. Select search features (see below).
4. Click **Lookup...**

Search Features

Stemming searches grammatical variations of the words in your search request. For example, with stemming enabled a search for apply would also find applies.

Phonic search finds words that sound similar to words in your request, like Smith and Smythe.

Fuzzy search sifts through scanning and typographical errors. Fuzziness adjusts from 1 to 10 depending on the degree of misspellings. (Try starting with 3.)

Synonym search tells dtSearch to use a thesaurus to find synonyms of words in your search request. dtSearch provides three ways to perform synonym searching:

Check the User thesaurus box to find synonyms that you have defined in your own thesaurus.

Check the WordNet thesaurus box to find synonyms using the WordNet concept network included with dtSearch.

Check the WordNet related words box to find related words from the WordNet concept network.

To save the list of words in a file, click **Save list.**

More Search Options

Limit search results to the best matching files
Check this box and enter a number under **Number of files to return** to have dtSearch return a limited number of items in search results. If you do not check the box, dtSearch will return ***all*** of the documents that match a search request.

Enter a number for the **Stop search after __ files** setting to make the search halt when this many files have been found. For example, if **Number of files to return** is 5,000, and **Stop search after __ files** is 25,000, then the search will proceed until at 25,000 files are found, and the best-matching 5,000 of these will be returned in search results.

File Filters

The **File filters** in the Search dialog box enable you to limit a search to files with a certain name, modification date, or size.

Name matches
Enter a filename filter like *.DOC. To specify a folder name, enter a filter like this: *\FolderName*

Name does not match
To exclude documents enter a filter like *.EXE.

File size
Enter the maximum and/or minimum file size range (in bytes) for your search.

File modification date
Select the type of date comparison you want (between two dates, before a date, after a date) and enter the relevant date or dates in the boxes following the comparison. Enter the date in the format appropriate for your location (MM/DD/YYYY in the U.S.). Date comparisons are done using UTC for consistency.

You can leave any of these fields blank. To clear all of the fields, click **Clear filters**.

Unindexed Searching

dtSearch can search without an index, and can combine indexed and unindexed searches in a single request. To search without an index, select the type of search to be performed under **Search type** (indexed search only, unindexed search only, or a combination of both types). Click **Add Files...** or **Add Folder...** to select files or folders to be included in the unindexed search.

Search History

Select the **Search History** button in the Search dialog box to see a list of prior searches. The list at the top shows the last 100 searches you have done. Below the list is the search request and list of files retrieved for the currently-selected search.

Click **Delete** to delete a search from your search history.

Click **Delete All** to delete all searches from your search history.

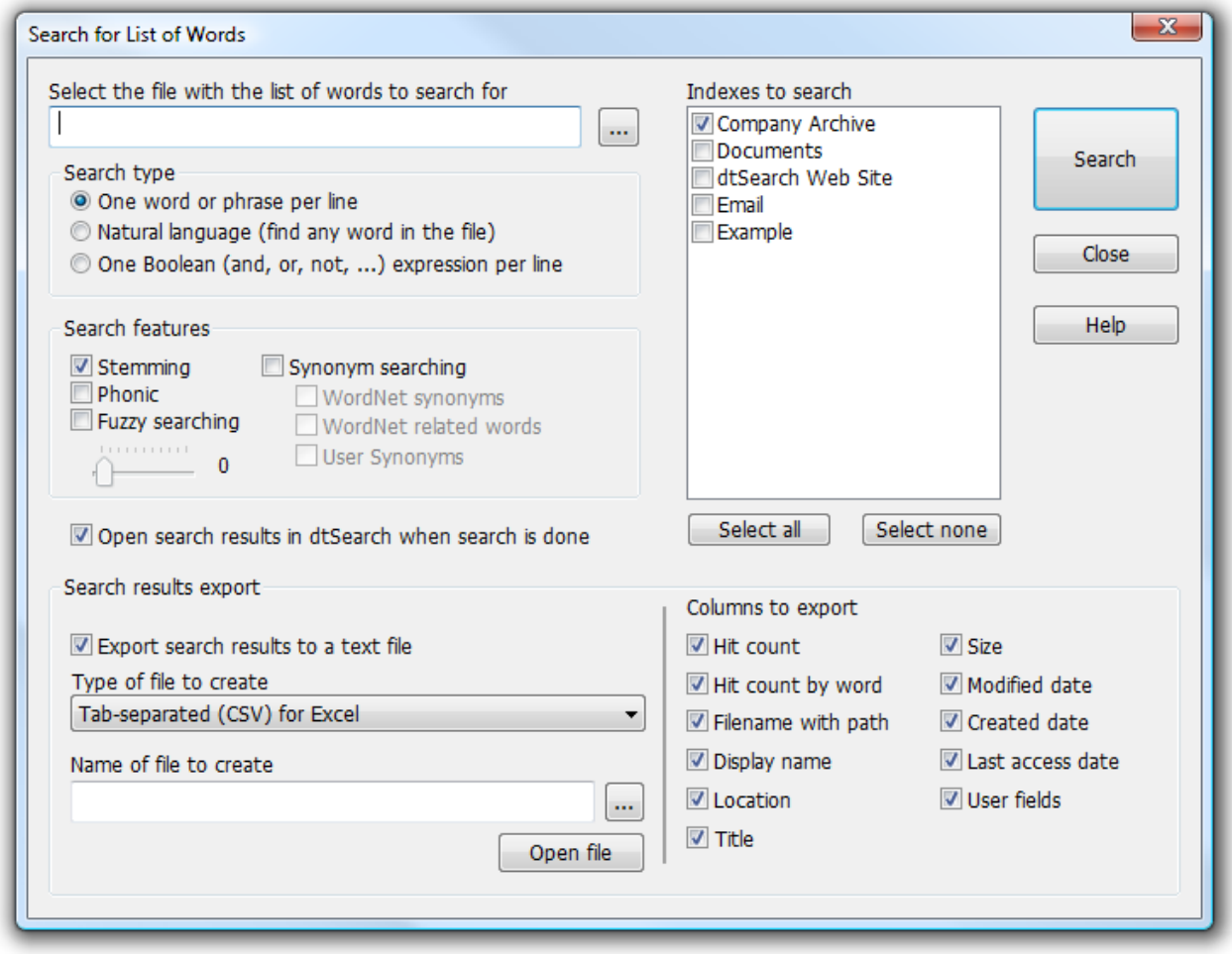
To open a prior search in dtSearch, click the **Open** button.

Click **Insert** to re-use a search request from a prior search.

To search within the results of a previous search, open the previous search and then click **Search > Search within these results**.

Searching for a List of Words

Menu option: **Search > Search for List of Words**



The **Search for List of Words** dialog box provides a way to search for a long list of words, and create a list of matching files, in a single step. The list of words can be in any of the file formats that dtSearch supports. To search for a list of words,

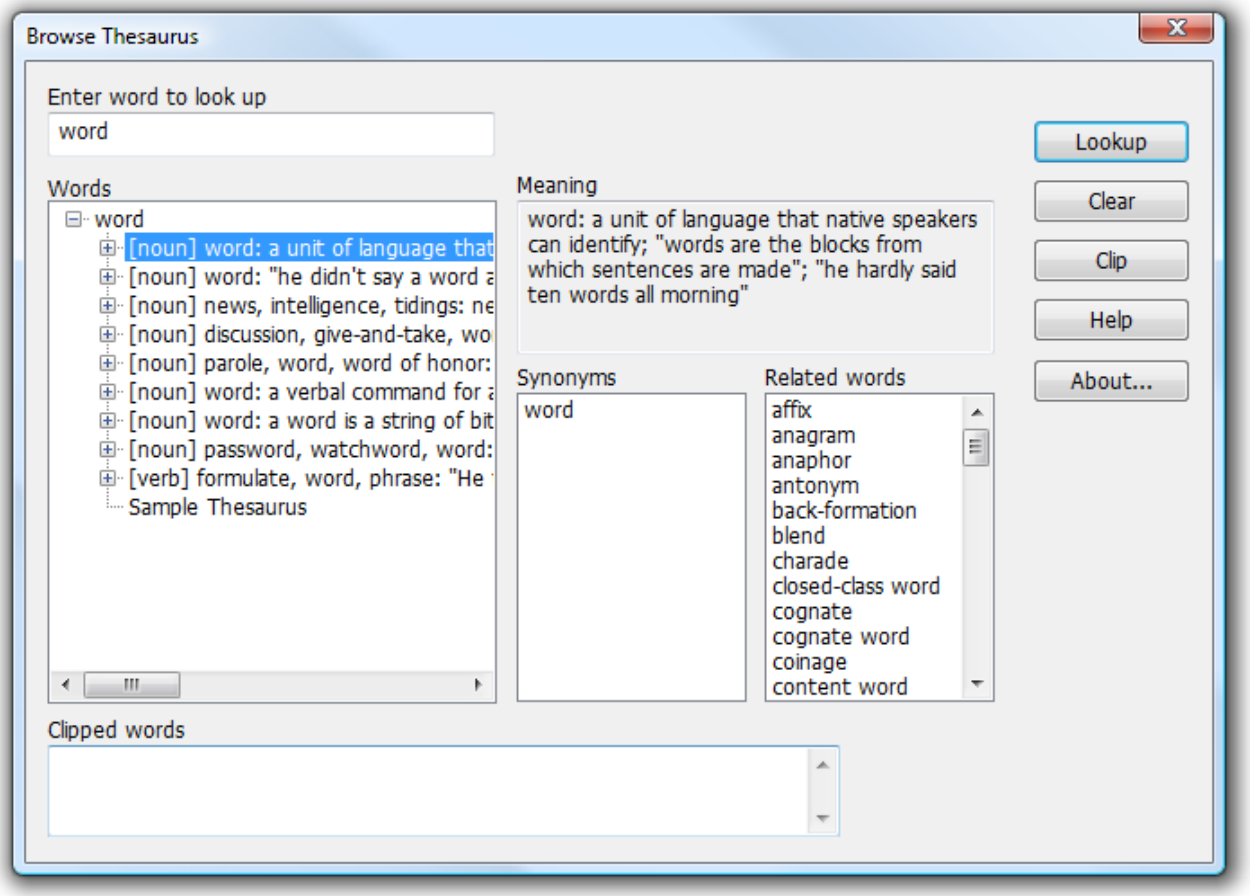
1. Create the word list in any of the file formats that dtSearch supports, such as Microsoft Word, Excel, etc.
2. Click **Search > Search for List of Words...**
3. Enter the name of the file with the list of words. To browse for the file, click the **...** button. If some of the words in the list are not English words, the word list file should be in a format that is able to store Unicode text, such as Microsoft Word or Excel, or the Unicode text format.
4. Under **Search type**, select the option that describes the type of search request in the text file. dtSearch will search for documents containing any of the words or phrases in the list.

One word or phrase per line - The text file contains a series of lines, each of which contains a single word or phrase.
Natural language - Treat the entire contents of the file as a single natural language search request.
One Boolean (and, or, not, ...) expression per line - The text file contains a series of lines, each of which contains a single boolean search request. dtSearch will search for documents containing any of the boolean expressions in the list.

5. Under **Search features**, select search options to use in the search (stemming, fuzzy searching, etc.)
6. Select the type of search results that you want from the search.
   Check **Open search results in dtSearch** to see the search results list in dtSearch Desktop, just as you would after a search using the Search dialog box.
   Check **Export search results to a text file,** and enter a filename under **Name of file to create**, to get a plain text listing with all of the documents matching the search request. To export the list to Excel, leave the file type as "Tab separated (CSV) for Excel", which is the default.
   If the search finds a very large number of files, the list of files in the text file will be complete, and the search results in dtSearch Desktop will display the best-matching 5,000 documents.

Thesaurus

Menu option: **Search** > **Search** > **Browse Thesaurus**



Click the **Browse Thesaurus** button in the Search dialog box to browse synonyms and related words from both your user thesaurus and from the WordNet thesaurus included with dtSearch.

To look up a word in the thesaurus, enter the word you want to find and click **Lookup**. dtSearch will display a tree showing each group of synonyms associated with this word. To examine a branch, click on it with the mouse. The **Synonyms** list will contain synonyms from all of the groups under that branch, and the **Related Words** list will contain related words (such as antonyms) from all of the groups under the branch. The **Meaning** box will show a brief definition describing the synonyms group.

To look up one of the words in the **Synonyms** or **Related Words** lists, double click the word you want to find with the mouse, or move the cursor to it and click the **Lookup** button.

To clear all synonym trees from the dialog box, click the **Clear** button.

The **Clipped words** box lists words collected to the clipboard that you can paste into your search request (or other software). To clip a word from the Synonyms or Related Words lists, click on the word or move the cursor to it and click the **Clip** button.

WordNet Thesaurus

WordNet is an extensive lexical and semantic network of the English language. In addition to synonyms it includes brief definitions and links between words other than synonym relationships. It includes the following types of relationships:

Relationship	Meaning
Synonym	Words that have the same meaning as the word that you entered.
Antonym	Words that have the opposite meaning from the words that you entered.
Hypernym	Things that are subcategories or subitems of the word that you entered. A ____ is a kind of <word you entered> [noun] To ____ is a way to <word you entered> [verb]
Hyponym	Categories that the word you entered belong to (the opposite of a hypernym). A <word you entered> is a kind of ____ [noun] To <word you entered> is one way to ____ [verb]
Meronym	Something that is a part of or a member of the word that you entered. ____ is a member of <word you entered>. ____ is a part of a <word you entered>.
Holonym	Something that the word you entered is a member or part of. <word you entered> is a member of ____. <word you entered> is part of a ____.

Search Results

Copying Retrieved Files

Menu option: **Edit > Copy File...**

After a search, you can copy all or some of the retrieved documents to a folder. To copy files listed in search results,

1. After the search, select the documents that you want to copy.

2. Click **Edit > Copy File...**

3. Enter a folder to store the copied files under **Destination**

Filenames

Check the **Preserve folder names** box to include the folder name of each document in the destination path. Otherwise, all files will be copied to the same folder without path information. If multiple files with the same name are copied to the same folder, dtSearch will add numbers to the filenames to make them unique.

Check the box to **Shorten long filenames** to have dtSearch limit the length of long filenames. (Windows can have problems accessing files with names (including path information) longer than 255 characters.)

File dates

The file modification date of each copied file will be the same as the original.

Check the **Preserve file creation and last access times** box to transfer the creation and last access dates to the copied file as well.

Cached documents

If an index was created with caching of documents enabled, **Copy File** will copy the document from the cached version stored in the index. Additionally, because dtSearch does not store last access dates in the index, only the last modified and creation dates are preserved.

Documents in containers

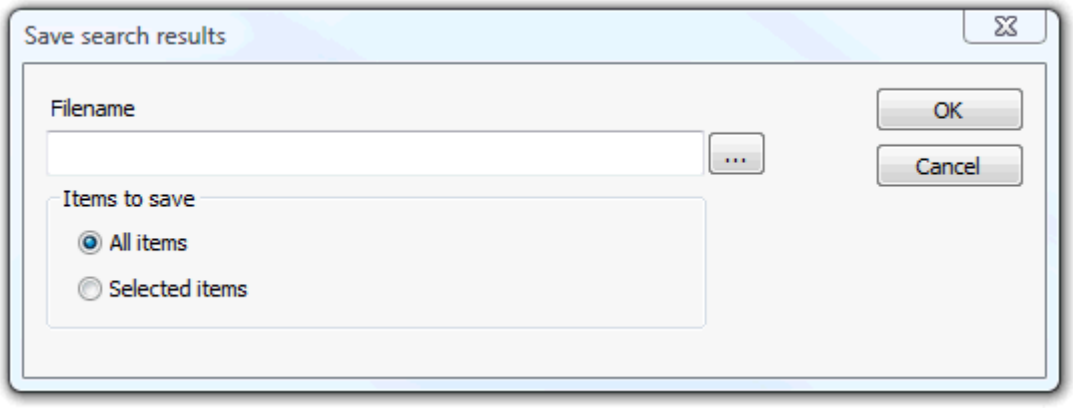
If a document is stored in a container format such as a ZIP file, email archive, or database, dtSearch will extract the document from the container and only copy the extracted document. If you would rather have dtSearch copy the entire container file, check the box to do this.

PST files

Extraction of messages from PST files can be slow because PST files take a long time to open. If you are indexing Outlook PST data and expect to be copying many files for review, it is usually more efficient to use the dtSearch mapitool.exe utility to extract the message items first and then to index the extracted items. Otherwise copying files for review after a search can take a very long time. Please see this article for more information: How to index Outlook and Exchange messages with dtSearch.

Saving Search Results

Menu option: **File > Save Search Results As...**



After a search, you can save search results in XML or comma-separated values (CSV) format.

Click **File > View File...** to reopen search results that you have previously saved in XML format. (You can also find previous searches in the **Search History**.)

Search results saved in CSV format can be opened in Excel or other programs that can import CSV data.

Check the **Selected items** box to save only selected items from search results in the file.

Selecting Items in Search Results

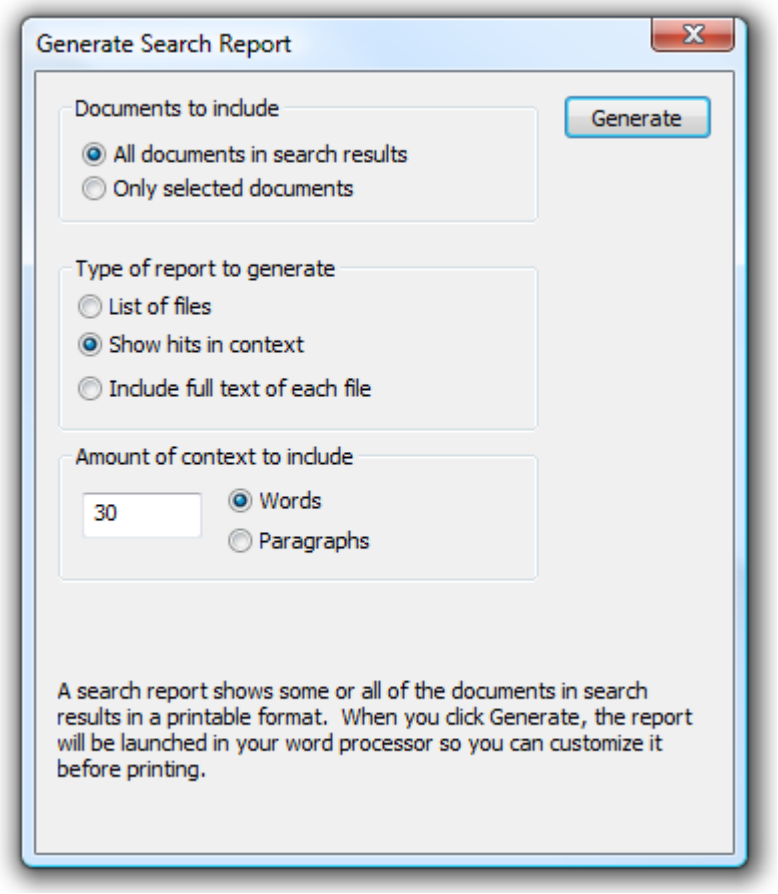
To select all items in search results, click **Edit > Select All.**

To clear all selections, click **Edit > Clear All Selections**.

There are two ways to select individual items in search results:
(1) Hold down the Ctrl key and click on a filename to select it, and hold down the Shift key and click on a filename to select all of the files between that filename and the previously-clicked filename.
(2) If you prefer to use checkboxes, click **Options > Preferences > Search Results**, and check the box to include checkboxes in search results. This will add a checkbox next to each item in search results, making it easier to select individual items from a long list of retrieved files.

Search Reports

Menu option: **Search** > **Search Report**



A search report lists each hit found in each of the documents retrieved in a search with a specified number of words or paragraphs of context surrounding it.

To create a search report from a Search Results window, choose **Search Report** from the Search menu, enter the amount of context (words or paragraphs) you want surrounding each hit in your report, and click **OK**. To include selected files in a search results list, hold down the CTRL key and click on the files you want included, then choose **Search Report** from the Search menu.

After dtSearch generates a search report, it will open the search report in your word processor so that you can edit or print the report.

To change the layout of search reports, edit the SearchReportTemplate.rtf file in your dtSearch templates folder.

Search Requests

Search Requests (Overview)

dtSearch supports three types of search requests:

An "any words" search is any sequence of text, like a sentence or a question. In an "any words" search, use quotation marks around phrases, put + in front of any word or phrase that is required, and - in front of a word or phrase to exclude it. Examples:

```
banana pear "apple pie"
"apple pie" -salad +"ice cream"
```

An "all words" search request is like an "any words" search except that all of the words in the search request must be present for a document to be retrieved.

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

Search Request	Meaning
apple and pear	both words must be present
apple or pear	either word can be present
apple w/5 pear	apple must occur within 5 words of pear
apple not w/12 pear	apple must occur, but not within 12 words of pear
apple and not pear	only apple must be present
name contains smith	the field name must contain smith
apple w/5 xfirstword	apple must occur in the first five words
apple w/5 xlastword	apple must occur in the last five words

If you use more than one connector (and, or, contains, etc.), 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)***. For best results, always enclose expressions with connectors in parenthesis. Example:

```
(apple and pear) or (name contains smith)
```

Noise words, such as ***if*** and ***the***, are ignored in searches.

Search terms may include the following special characters:

Character	Meaning
?	matches any character
=	matches any single digit
*	matches any number of characters
%	fuzzy search
#	phonic search
~	stemming
&	synonym search
~~	numeric range
##	regular expression

To enable fuzzy searching, phonic searching, synonym searching, or stemming for all search terms, check the boxes under **Search features** in the search dialog box.

All Words and Any Words Searches

An "any words" search is any sequence of text, like a sentence or a question. In an "any words" search, use quotation marks around phrases, put + (plus) in front of any word or phrase that is required, and - (minus) in front of a word or phrase to exclude it. Examples:

```
banana pear "apple pie"
"apple pie" -salad +"ice cream"
```

An "all words" search request is like an "any words" search except that all of the words in the search request must be present for a document to be retrieved.

Words and Phrases

To search for a phrase, use quotation marks around it, like this:

```
apple w/5 "fruit salad"
```

If a phrase contains a noise word, dtSearch will skip over the noise word when searching for it. For example, a search for ***statue of liberty*** would retrieve any document containing the word ***statue***, any intervening word, and the word ***liberty***.

Punctuation inside of a search word is treated as a space. Example: ***can't*** would be treated as a phrase consisting of two words: ***can*** and ***t***. ***1843(c)(8)(ii)*** would become ***1843 c 8 ii*** (four words). (To customize the way dtSearch handles punctuation in text, see Alphabet Customization.)

Wildcards (* 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.
appl? would match ***apply*** and ***apple*** but not ***apples***.
ap*ed would match ***applied***, ***approved***, etc.

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

The = wildcard matches any single digit. For example, *N*=== would match *N123* but not *N1234* or *Nabc* .

Fuzzy Searching

Fuzzy searching will find a word even if it is misspelled. For example, a fuzzy search for ***apple*** will find ***appple***. Fuzzy searching can be useful when you are searching text that may contain typographical errors (such as emails), or for text that has been scanned using optical character recognition (OCR). There are two ways to add fuzziness to your searches:

1. Check **Fuzzy searching** in the search dialog box to enable fuzzy searching for all of the words in your search request. You can adjust the level of **fuzziness** from 1 to 10. (Usually values from 1 to 3 are best for moderate levels of error tolerance.)
2. Add fuzziness selectively using the % character. The number of % characters you add determines the number of differences dtSearch will ignore when searching for a word. The position of the % characters determines how many letters at the start of the word have to match exactly. Examples:
   `ba%nana`**:** Word must begin with ***ba*** and have at most one difference between it and ***banana.***
   `b%%anana`**:** Word must begin with ***b*** and have at most two differences between it and ***banana.***

Phonic Searching

Phonic searching looks for a word that sounds like the word you are searching for and begins with the same letter. For example, a phonic search for ***Smith*** will also find ***Smithe*** and ***Smythe***.

To ask dtSearch to search for a word phonically, put a # in front of the word in your search request. Examples: ***#smith, #johnson***

Check **Phonic searching** in the **Search features** section of the search dialog box to enable phonic searching for all of the words in your search request. Phonic searching is somewhat slower than other types of searching and tends to make searches over-inclusive, so it is usually better to use the # symbol to do phonic searches selectively.

Stemming Searching

Stemming extends a search to cover grammatical variations on a word. For example, a search for ***fish*** would also find ***fishing***. A search for ***applied*** would also find ***applying***, ***applies***, and ***apply***. There are two ways to add stemming to your searches:

1. Check **Stemming** under **Search features** in the search dialog box to enable stemming for all of the words in your search request. (By default, the box is checked.) Stemming does not slow searches noticeably and is almost always helpful in making sure you find what you want.
2. To add stemming selectively, add a ~ at the end of words that you want stemmed in a search. Example: ***apply~***

The stemming rules included with dtSearch are designed to work with the English language. These rules are in the file stemming.dat. To implement stemming for a different language, or to modify the English stemming rules that dtSearch uses, edit the stemming.dat file. See the stemming.dat file for more information.

Synonym Searching

Synonym searching finds synonyms of a word that you include in a search request. For example, a search for ***fast*** would also find ***quickly.*** To enable synonym searching, check the **Synonym searching** box in the Search dialog box and also check one or more of the synonym search types below. You can also enable synonym searching selectively by adding the & character after certain words in your request. Example: ***improve& w/5 search***

dtSearch provides three ways to perform synonym searching:

Check **Synonyms** to find synonyms using the WordNet concept network included with dtSearch.

Check **Related words** to find related words from the WordNet concept network.

Check **User synonyms** to find synonyms that you have defined in your own thesaurus.

Numeric Range Searching

A numeric range search is a search for any numbers that fall within a specified range. To add a numeric range component to a search request, enter the upper and lower bounds of the search separated by ~~ like this:

```
apple w/5 12~~17
```

This request would find any document containing ***apple*** within 5 words of a number between ***12*** and ***17***.

Notes

1. A numeric range search includes the upper and lower bounds (so ***12*** and ***17*** would be retrieved in the above example).
2. Numeric range searches only work with integers greater than or equal to zero, and less than 2,147,483,648
3. For purposes of numeric range searching, decimal points and commas are treated as spaces and minus signs are ignored. For example, ***-123,456.78*** would be interpreted as: ***123 456 78*** (three numbers). Using alphabet customization, the interpretation of punctuation characters can be changed. For example, if you change the comma and period from **space** to **ignore**, then ***123,456.78*** would be interpreted as ***12345678***.

Field Searching

When you index a database or other file containing fields, dtSearch saves the field information so you can perform searches limited to a particular field. For example, if you index an Access database with a ***Name*** field and a ***Description*** field, then you could search for ***apple*** in the ***Name*** field like this:

```
Name contains apple
```

In addition to databases, dtSearch automatically recognizes metadata in supported file types. For a list of supported metadata formats, see "What file formats does dtSearch support" at https://support.dtsearch.com.

To see a list of all of the fields defined in your index, click the **fields...** button in the Search dialog box.

Field searches can be combined using AND, OR, and NOT, like this:

```
(City contains (Portland or Seattle)) and (Address contains
(Washington))
```

The parenthesis are necessary to ensure that dtSearch interprets the search request correctly.

To search for text that is not in any field, search for ***//text contains (search request)***. The ***//text*** field name means "not in any field".

Alternative field searching syntax

An alternative syntax for field searches is to add the field name and :: in front of each word, like this:

```
(City::Portland or City::Seattle) and (Address::Washington)
```

The alternative syntax can be used where the boolean syntax is not possible, such as in "all words" or "any words" searches and file conditions.

Nested Fields

Some file formats such as XML support nesting of fields. Example:

```
<record>
<name>John Smith</name>
<address>
<street>123 Oak Street</street>
<city>Middleton</city>
...
```

In dtSearch, a search of a field includes any fields that are nested inside of the field, so the XML file above would be retrieved in a search for any of the following:

```
record contains oak
address contains oak
street contains oak
```

To specify a specific subfield of a field, use / to separate the field names, like this:

```
record/address contains oak
address/street contains oak
record/address/street contains oak
```

Put a / at the front of the field name to specify that it cannot be a sub-field of another field:

```
/record/name contains Smith
/name contains Smith
```

The second search request above would ***not*** match the XML example because, while it contains a "name" field, the name field is a sub-field of the record-field. A search for /name specifies a "name" field at the top of the field hierarchy.

Finally, you can use // to specify any number of unspecified intervening fields, like this:

```
/record//city contains Middleton
```

Segment Searches

You can also define a field at the time of a search by designating words that begin and end the field, like this:

```
(beginning to end) contains (something)
```

The ***beginning TO end*** part defines the boundaries of the field. The CONTAINS part indicates the words or phrases you are searching for in the field. The only connector allowed in the beginning and end expressions in a field definition is OR. Examples:

```
(name to address) contains john smith
(name to (address or xlastword)) contains (oak w/10 lane)
```

The field boundaries are not considered hits in a search. Only the words being searched for (***john smith, oak, lane***) are marked as hits.

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 pie and poached pear would retrieve any document that contains both phrases.

(apple or banana) and (pear w/5 grape) would retrieve any document that (1) contains either ***apple*** OR ***banana***, AND (2) contains ***pear*** within 5 words of ***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 pie or poached pear*** would retrieve any document that contained ***apple pie***, ***poached pear***, or both.

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 ***apple*** within 5 words of ***pear***. The following are examples of search requests using W/N:

```
(apple or pear) w/5 banana
(apple w/5 banana) w/10 pear
(apple and banana) w/10 pear
```

The pre/N connector is like W/N but also specifies that the first expression must occur before the second. Example:

```
(apple or pear) pre/5 banana
```

Some types of complex expressions using the W/N connector will produce ambiguous results and should not be used. 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)
```

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 OR. Example:

```
(apple and banana) w/10 (pear or grape)
(apple and banana) w/10 orange tree
```

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

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 ***apple*** within 10 words of the end of a document.

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. Example:

```
apple sauce and not pear
```

NOT standing alone can be the start of a search request. For example, ***not pear*** would retrieve all documents that did not contain ***pear***.

If NOT is not the first connector in a request, you need to use either AND or OR with NOT:

```
apple or not pear
not (apple w/5 pear)
```

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

```
apple not w/20 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 ***apple*** and excludes cases where ***apple*** is too close to ***pear***. In the ***pear not w/20 apple*** request, dtSearch searches for ***pear*** and excludes cases where ***pear*** is too close to ***apple***.

Variable Term Weighting

When dtSearch sorts search results after a search, by default all words in a request count equally in counting hits. However, you can change this by specifying the relative weights for each term in your search request, like this:

```
apple:5 and pear:1
```

This request would retrieve the same documents as ***apple and pear*** but dtSearch would weight ***apple*** five times as heavily as ***pear*** when sorting the results.

Search Macros

Menu option: **Options > Preferences > Macros**

Macros can be useful for abbreviating long names or phrases that you use frequently, or abbreviating field definitions in field searches. A macro can 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. A macro name must begin with the @ character in search requests.

For example, if you define the macro ***@IRC*** to mean ***internal revenue code***, and then search for ***standard deduction w/3 @IRC***, dtSearch will search for ***standard deduction w/3 internal revenue code***.

Automatic recognition of dates, email addresses, and credit card numbers

Menu option: **Options** > **Preferences** > **Indexing Options**

Dates

Date recognition looks for anything that appears to be a date, using English-language months (including common abbreviations) and numerical formats. Examples of date formats that are recognized include:

```
January 15, 2006
15 Jan 06
2006/01/15
1/15/06
1-15-06
The fifteenth of January, two thousand six
```

To search for a date, put "date()" around the date expression or range. For example, to find any of the expressions above near the word "apple", search for:

```
date(jan 15 2006) w/10 apple
```

To search for a range of dates near the word "apple", search for:

```
date(jan 10 2006 to jan 20 2006) w/10 apple
```

A field search for a date expression would be expressed like a field search for a word:

```
DateField contains date(jan 10 2006 to jan 20 2006)
```

Unterminated ranges are not supported, so to search for any date after or before a particular date, enter a bounded range with a maximal or minimal value for the bounds. The maximum value for a year is 2900, and the minimum value is 1000. Example:

```
DateField contains date(jan 10 2006 to jan 1 2900)
```

Email Addresses

Email address recognition looks for text that follows the syntax for a valid email address (example: sales@dtsearch.com). This makes it possible to search for a specific email address regardless of the alphabet settings for the @ and . characters, as well as any other punctuation that may be present in an email address. Also, this makes it possible to use the word listing functions in dtSearch to enumerate all email addresses in a document collection.

To search for an email address, put "mail()" around the address. The * and ? wildcard expressions are supported inside the () marks. Examples:

```
mail(sales@dtsearch.com)
mail(sa*@dtsearch.com)
```

Credit Card Numbers

Credit card number recognition looks for any sequence of numbers that appears to satisfy the criteria for a valid credit card number issued by one of the major credit card issuers. Credit card numbers are recognized regardless of the pattern of spaces or punctuation embedded in the number. Examples:

```
4111 1111 1111 1111
4111-1111-1111-1111
4111111111111111
```

Numerical tests used by the credit card issuers for card validity are used to exclude sequences of numbers that are not credit card numbers. However, these tests are not perfect and so the credit card number recognition feature may pick up some numbers that are not really credit card numbers.

To search for a credit card number, put "creditcard()" around the number. Example:

```
creditcard(4111*)
```

Other numerical patterns

To search for other numerical patterns such as social security numbers, you can use the = wildcard, which matches any single digit. For example, if hyphens are indexed as spaces, then the following search request would find U.S. social security numbers:

```
=== == ====
```

Enabling automatic recognition of dates, email addresses, and credit card numbers

In dtSearch Desktop, click **Options > Preferences > Indexing Options**, and check the box to "Automatically recognize dates, email addresses, and credit card numbers in text."

Word lists

To list dates, credit card numbers or email addresses in an index, click **Index > List Index Contents**. The same syntax used in search requests works in the listing functions, so listing words matching "creditcard(*)" will list all credit card numbers in the index.

Effect on performance

Indexing will be slower with the recognition feature enabled.

Regular Expressions

Regular expression searching provides a way to search for advanced combinations of characters. A regular expression included in a search request must be quoted and must begin with ##.

Examples:

```
Apple and "##199[0-9]"
Apple and "##19[0-9]+"
```

In addition to searching, dtSearch can use regular expressions in File Segmentation and Text Fields rules.

Special characters in a regular expression are:

Regular expression	Effect
. (period)	Matches any single character. Example: "sampl." would match "sample" or "samplZ"
\	Treat next character literally. Example: in "\$100", the \ indicates that the pattern is "$100", not end-of-line ($) followed by "100"
[abc]	Brackets indicate a set of characters, one of which must be present. For example, "sampl[ae]" would match "sample" or "sampla", but not "samplx"
[a-z]	Inside brackets, a dash indicates a range of characters. For example, "[a-z]" matches any single lower-case letter.
[^a-z]	Indicates any character except the ones in the bracketed range.
.* (period, asterisk)	An asterisk means "0 or more" of something, so .* would match any string of characters, or nothing
.+ (period, plus)	A plus means "1 or more" of something, so .+ would match any string of at least one character
[a-z]+	Any sequence of one or more lower-case letters.

dtSearch uses the TR1 implementation of regular expressions, which provides many capabilities beyond what is described above.

Limitations

(1) A regular expression must match a single whole word. For example, a search for "##app.*ie" would not find "apple pie".

(2) Only letters are searchable. Characters that are not indexed as letters are not searchable even using regular expressions, because the index does not contain any information about them.

(3) Because the dtSearch index does not store information about line breaks, searches that include begining-of-line or end-of-line regular expression criteria (^ and $) will not work.

(4) No case or other conversion is done on regular expressions, so a regular expression must match the case of the information stored in the index. If an index is case-insensitive, all letters in the regular expression must be lower-case. If a character is not searchable in the index, then it cannot be included as a searchable character in the regular expression. Non-searchable characters in a regular expression are not ignored as they are in other search expressions.

Performance

A regular expression is like the * wildcard character in its effect on search speed: the closer to the front of a word the expression is, the more it will slow searching. "appl.*" will be nearly as fast as "apple", while ".*pple" will be much slower.

Searching for numbers

The = wildcard, which matches a single digit, is faster than regular expressions for matching patterns of numbers. For example, to search for a social security number, you could use "=== == ====" instead of the equivalent regular expression.

Options

Indexing Options

Menu option: **Options > Preferences > Indexing options**

Automatically recognize dates, email addresses and credit card numbers in text
Check this box to have the dtSearch indexer scan for anything that looks like a date, email address, or credit card number during indexing. With this option enabled, you can search specifically for text matching credit card numbers, email addresses, or ranges of dates. See: Automatic recognition of dates, email addresses, and credit card numbers.

Index numbers
If your documents contain a lot of numbers and you do not expect to want to search for them, clear this checkbox to make dtSearch exclude numbers from your index. This will make your indexes smaller and will speed indexing.

Index document properties
If checked, dtSearch will index document summary information fields in Office, PDF and WordPerfect documents and META tags in HTML files.

Index filenames as text
If checked, dtSearch will append the filename of each document to the end of the text during indexing, so text in a filename will be searchable like other document text. If "Include path information" is checked, then the full path and filename will be searchable, instead of just the filename.

Add file type name (Word, Excel, etc.) to documents
The file type name will appear at the end of each document in a searchable "File Type" field. With this option enabled, you can include file type criteria in a search. Example: "apple and (file type contains Excel)".

Index MIME headers in emails
Basic email properties such as Subject, To, From, and Date are always indexed. Check this box to also index the text of all MIME headers transmitted with a message.

Index HTML scripts, styles, links, and comments
Normally HTML scripts, styles, links and comments are not indexed and dtSearch will index only visible text and META tags in HTML files. Check this box to make these hidden HTML elements searchable.

Index attachments in PDF files
PDF files can have attachments such as embedded Word documents. Check this box to have dtSearch detect and index attachments in PDF files. This option will affect they way PDF files with attachments are displayed in dtSearch. Because Adobe Reader cannot display PDF attachments with hit highlighting, any PDF files with attachments that are indexed will be displayed as text in dtSearch.

Index links in PDF files
If checked, dtSearch will index any links embedded in PDF files.

Index field names in XML files
Index field attributes in XML files
Check these boxes to have dtSearch index field names or field attributes in XML files. If both boxes are unchecked, dtSearch will only index field values in XML.

Ignore common HTML field names (<P>, <I>, <B>, etc.) in XML data
Malformed XML data can sometimes contain HTML tags in text fields. Check this box to have dtSearch detect and ignore these tags.

Index XML files as plain text (without field searching)
With this option selected, XML files are indexed without including field attributes. All of the text, including field names, remains searchable, but XML content treated as plain text, which makes indexing and searching faster.

Index database files as plain text (without field searching)
With this option selected, database files such as Microsoft Access (*.mdb, *.accdb) and CSV files are indexed without treating each row as a separate document, and without including field attributes. All of the text, including field names, remains searchable, but database content is combined into a single plain text document, which makes indexing and searching faster.

Index properties of images embedded in documents
When images are indexed as individual files, their properties are always indexed. Check this box to also index properties of images that are embedded in other documents.

Enable numeric range searching
By default, dtSearch indexes numbers both as text and as numeric values, which is necessary for numeric range searching. Use this flag to suppress indexing of numeric values in applications that do not require numeric range searching. Numbers will still be searchable as text if the Index numbers option is checked. This setting can reduce the size of your indexes by about 20%.

Generate and index MD5 hashes for documents
MD5 hashes are unique numerical codes that are sometimes used in forensics to identify files. Check this box if you need to be able to search for files by their numerical MD5 hash. dtSearch will generate a hash for each document as it is indexed and index the hash a field named MD5Hash. The hash will be formatted as a single 32-digit hexadecimal string. Generating hashes will make indexing slower.

Generate and index SHA-256 hashes for documents
SHA-256 hashes are unique numerical codes that are sometimes used in forensics to identify files. Check this box if you need to be able to search for files by their numerical SHA-256 hash. dtSearch will generate a hash for each document as it is indexed and index the hash a field named Sha256Hash. The hash will be formatted as a pair of 32-digit hexadecimal strings so it will be searchable with the default maximum word length of 32 characters. Generating hashes will make indexing slower.

Index hidden content in Office documents (such as macros)
In addition to the normally visible text, Office documents can contain a wide range of other embedded data, such as macros, viruses, or other embedded documents. Check this box to make these items visible in dtSearch.

Index NTFS Summary Information streams
Check this box to have dtSearch index NTFS Summary Information data for each document indexed. NTFS Summary Information properties were created in older versions of Windows when you right-click a document in Windows Explorer and enter values in the Summary Information fields (Author, Subject, etc.).

Compatibility mode for Parallels Desktop for Mac
Parallels Desktop is a program that enables Windows to run on Mac computers. The option enables dtSearch to work around an issue in Parallels Desktop that causes Parallels to report the modification date of files located in Mac folders as January 1, 1601. When this box is checked, dtSearch alters the indexing process to ensure that the correct dates are detected.

Index lists of file filenames in ZIP and RAR archives
This option provides a way to search on the list of files in a ZIP or RAR archive, even if the individual files may be inaccessible due to encryption. When dtSearch indexes a ZIP or RAR archive, in addition to the files actually present in the ZIP or RAR archive, it will also make a list of all of the files in the archive and index it with the name ArchiveFileList.html. This is only done if the filenames themselves are not encrypted in the archive.

The original file is not modified but the ArchiveFileList.html file is searchable as if it were part of the ZIP or RAR file. The file consists of a list of the names of the files inside the archive.

Default location for new indexes
By default, indexes will be created in your dtSearch UserData folder. You can specify a different location here. (In the Create Index dialog box, you can override this setting for each index that you create.)

Letters and Words

Menu option: **Options > Preferences > Letters and words**

Changes to these settings take effect when you create a new index and will not affect existing indexes.

Alphabet file
The alphabet file determines how dtSearch interprets certain characters in your documents (Unicode characters in the range from 32-127). Other character properties are set to conform to the Unicode Standard and cannot be modified. The default alphabet file included with dtSearch is DEFAULT.ABC.

To modify the alphabet file (for example, to make a character such as + searchable) click the **Edit...** button.

Noise word list
The noise word list contains words that are generally too common to be useful in searching (such as *the*). See "Noise Words" for more information. To modify the noise word list or to select a noise word list in a language other than English, click the **Edit...** button.

Maximum word length
This is the number of letters dtSearch will consider when indexing long words.

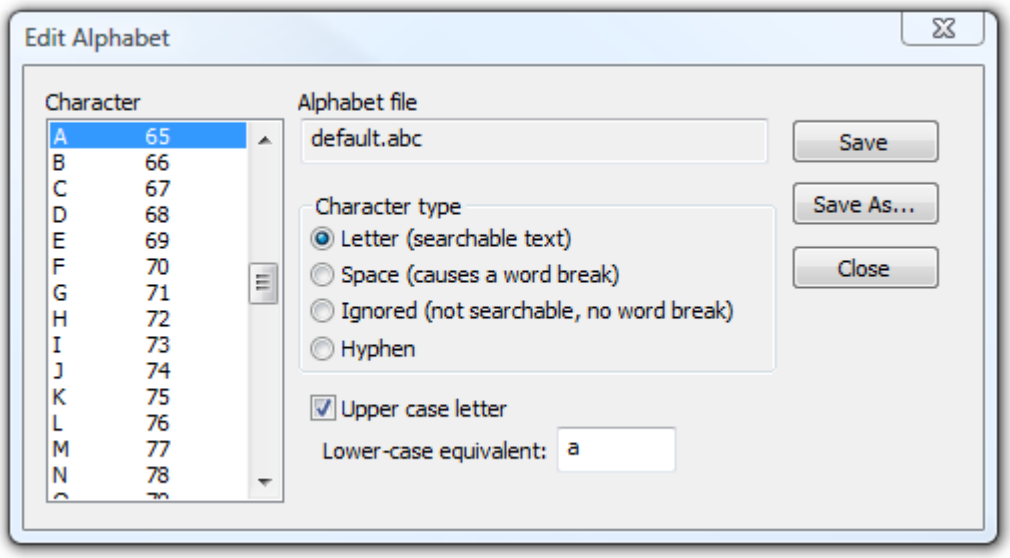
Hyphens
By default, dtSearch treats hyphens as spaces in indexed text and in search requests. For example, "first-class" would be treated like "first class." This option provides a way to select alternative treatments. Treating hyphen as spaces is recommended. For technical details on the other options, please see "Hyphenation options."

Insert word breaks between Chinese, Japanese, and Korean characters in text
Check this box if you are searching Chinese, Japanese, or Korean documents that do not contain word breaks.

Some Chinese, Japanese, and Korean text does not include word breaks. Instead, the text appears as lines of characters with no spaces between the words. Because there are no spaces separating the words on each line, dtSearch sees each line of text as a single long word. To make this type of text searchable, enable automatic insertion of word breaks around Chinese, Japanese, and Korean characters, so each character will be treated as single word.

Alphabet Customization

Menu option: **Options > Preferences > Letters and words**



The Edit Alphabet dialog box displays a list of all of the characters and how dtSearch classifies each one. dtSearch classifies characters into four categories: letter, space, hyphen, and ignore.

Category	Meaning
Letter	A searchable character. 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 character that causes 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.
Ignored	A character that is disregarded in processing text. For example, if you classify the period as ignore instead of space then dtSearch would process U.S.A. as one word: USA.
Hyphen	Hyphen characters can receive special processing in dtSearch. By default, only the '-' is defined as a hyphen. To specify the rules for processing hyphens, click Options > Preferences > Indexing Options.

For characters that are letters, you can specify whether the character is a lower case or upper case letter.

Only characters in the Unicode range 33-127 can be modified using Alphabet Customization. Other character properties are determined by the Unicode specification. See www.unicode.org for more information about Unicode.

Filtering Options

Menu option: **Options > Preferences > Filtering options**

Binary files
A binary file is a file that has a format dtSearch cannot recognize and that does not appear to be a plain text file. Use the **Binary files** setting to specify whether you want dtSearch to index these files as plain single-byte text, skip them entirely, filter out only the text, or index only the filenames. The recommended option is to apply the filtering algorithm, described below, to scan the file for sequences of text.

Exclude filter list for new indexes
When an index is created, dtSearch will use this option setting to initialize the list of filename filters to be excluded from the index.

Do not follow symbolic links
Symbolic links and junction points provide a way to link one location in a folder tree to a different location. By default, dtSearch will follow these links when indexing. Check this box to skip them instead.

Advanced Filtering Options

Menu option: **Options > Preferences > Advanced Filtering**

Binary files are files that dtSearch does not recognize as documents. Examples of binary files include executable programs, fragments of documents recovered through an "undelete" process, or blocks of unallocated or recovered data obtained through computer forensics. Content in these files may be stored in a variety of formats, such as plain text, Unicode text, or fragments of .DOC or .XLS files. Many different fragments with different encodings may be present in the same binary file. Indexing such a file as if it were a simple text file would miss most of the content.

The dtSearch filtering algorithm scans a binary file for anything that looks like text using multiple encoding detection methods. The algorithm can detect sequences of text with different encodings or formats in the same file, so it is much better able to extract content from recovered or corrupt data than a simple text scan.

Each binary file is first divided into blocks, and then the text is extracted from each block using the **Advanced filtering options** settings. Each block is given a filename based on the original document, the block number, the range of bytes in the file, and the language settings. Example:

```
sample.bin #16 @4194303 - 4456704 (0, 1, 2)
```

This name identifies the 16th block extracted from sample.bin, covering the range of data from offsets 4194303 to 4456704 in the input file. The numbers in parenthesis encode the language settings used to extract the text from this block.

The options described below apply only to text that is indexed as binary data using the filtering algorithm. These options have no effect on indexing text in recognized document formats such as Word, Excel, PDF, etc.

Languages to include
The **Languages to include** setting is used to help the filtering algorithm to distinguish text from non-text data. It is only used as a hint in the algorithm, so if the text extraction algorithm detects text in another language with a sufficient level of confidence, it will return that text even if the language was not selected.

Block size
The **Block size** setting specifies how each input file is divided into blocks before being filtered. For example, if you specify a block size of 100 kilobytes, then a 1000 kilobyte file would be indexed as 10 separate blocks. Very large block sizes can make extraction of documents slower after a search (because more data has to be extracted to view a block), so block sizes over 1 Mb are not recommended.

Overlap blocks
Overlapping blocks prevents text that crosses a block boundary from being missed in the filtering process. With overlapping enabled, each block extends 256 characters past the start of the previous block.

Extract blocks as HTML
Extracting blocks as HTML has no effect on the text that is extracted, but it adds additional information in HTML comments to each extracted block. The HTML comments identify the starting byte offset and encoding of each piece of text extracted from a file. To see the comments, right-click anywhere in the text of a block that was retrieved in a search and select "View source".

Minimum size of text segments
The minimum text segment size specifies how many text characters must occur consecutively for a block of text to be included. At the default value, 6, a series of 5 text characters surrounded by non-text data would be filtered out.

Allow filter to insert word breaks
The filter can automatically insert word breaks where appropriate (for example, where there is a lower-case letter followed by a capital letter) and break up very long consecutive streams of letters.

Use filtering to index corrupt or encrypted documents
This option applies the filtering algorithm to attempt to recover text from corrupt or encrypted documents, instead of just skipping these files during indexing. (By default,

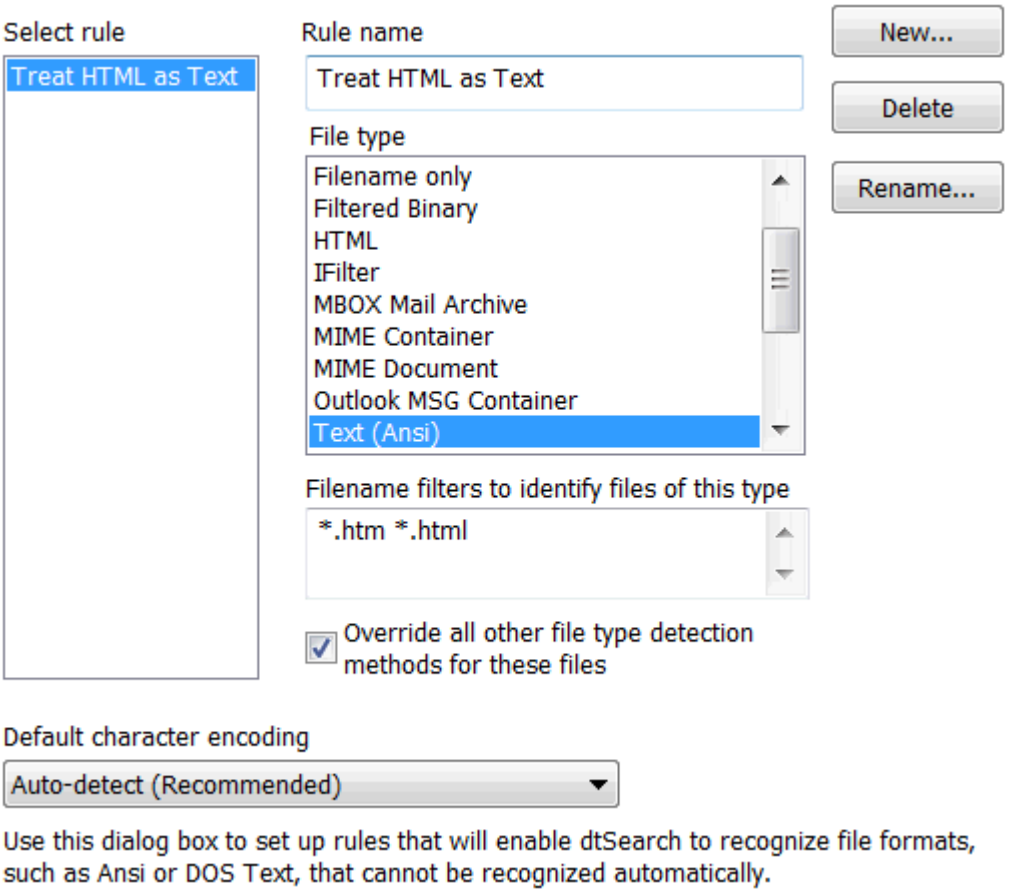
dtSearch will skip documents that are corrupt or encrypted, and will report a list of these files in the index update log. Only unencrypted text will be recovered from encrypted documents.)

Use filtering to index all documents

This option applies the filtering algorithm to index all documents, whether or not they appear to have a recognizable file format. This option is not recommended for most users. It will cause dtSearch to scan all files for segments of recognizable text, using the filtering algorithm only. This type of scan can find data that was intentionally hidden or accidentally left in documents such as text in unused streams in Microsoft Word or Excel files. However, this type of scan will miss data that is only accessible through a file format-aware scan of a document, such as compressed data in a PDF file. Therefore, this option should only be used in combination with a standard file format-aware index.

File Type Rules

Menu option: **Options** > **Preferences** > **File types**



dtSearch recognizes most file formats automatically. If you are indexing only files such as word processor documents that dtSearch supports and can automatically recognize, you can disregard this section.

If you are indexing other types of files, dtSearch provides a way to specify how you want dtSearch to process the files. For each filter, you can specify a rule that tells dtSearch how you want the file to be handled. You can also use file type rules to override the default handling of some files. For example, you could make a rule to require *.html to be indexed as text, if you want to be able to search HTML tags.

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

To set up a file type specification

1. Click **New...** to create a new item, and enter a name to identify it
2. Under **File type**, select the file format that the rule should select.
3. Under **Filename filters**, enter filters to identify files with this format.
4. Check the **Override all other file type detection methods for these files** box if you want dtSearch to always apply the rule, even if a document appears to have a different format.

File types

Several of the file types provide ways to change the way dtSearch indexes certain types of files, such as indexing only the name of a file, or indexing attachments separately from email messages.

"CSV as database"
"CSV as report"

CSV, or "comma-separated values", is a text format that can be used to store databases using commas to separate field values. Usually each row of a CSV file corresponds to one row of the database, with the field names in the first row. You can use these types to specify how dtSearch should treat CSV files. The "CSV as database" format treats each row of the CSV file as a separate document. The "CSV as report" format treats the whole CSV file as a report formatted into rows and columns, like a spreadsheet.

"Filename only"

Use the "Filename only" type to index only the name of files, ignoring the file contents.

"Filtered Binary"

See Filtering Options for information on how filtered documents are indexed.

"IFilter"

IFilters are components that enable various Microsoft search products, such as Microsoft Index Server, to extract text from documents. For example, when you install Microsoft OneNote, an IFilter is installed to enable searching of *.one files. To tell dtSearch to use installed IFilters to process some of your files, set up a rule in the file type table and under File type, select "IFilter".

"MIME Container"
"MIME Document"

A MIME file is an email file, usually with a .eml or .mht extension. MIME files can also be embedded in MBOX email archives, such as the email archives created by Thunderbird and Eudora. dtSearch can automatically detect MIME files and will index each email as a single document, combining the contents of all attachments at the end of the message body.

If you would rather have each attachment indexed as a separate document, you can create a rule specifying the files to index as "MIME Container" instead of "MIME Document".

For more information on this option, please see "How to index attachments separately from email messages"

"Outlook MSG Container"

A .msg file is an email created by Microsoft Outlook. When dtSearch indexes a PST message archive or indexes Outlook messages using the "Add Outlook" option in the dtSearch Indexer, each message is a single .msg file. dtSearch automatically detects .msg files and will index each email as a single document, combining the contents of all attachments at the end of the message body.

If you would rather have each attachment indexed as a separate document, you can create a rule specifying the files to index as "Outlook MSG Container".

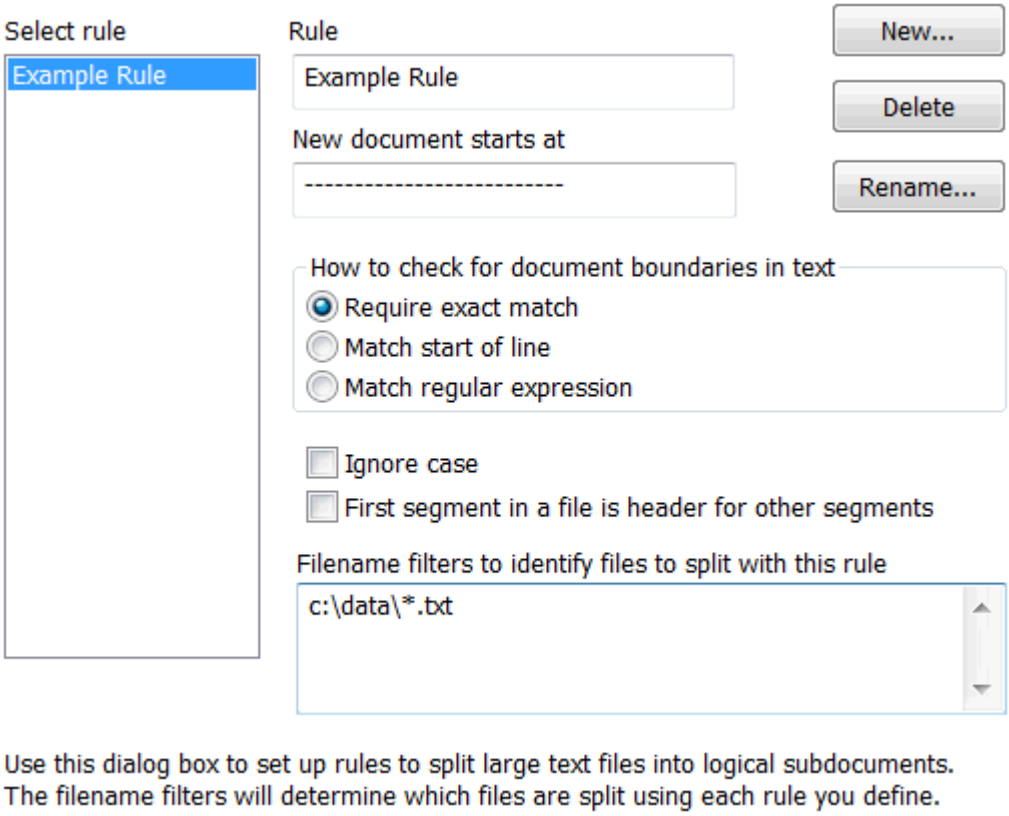
For more information on this option, please see "How to index attachments separately from email messages"

Default character encoding

Plain text files, some older word processsor files, and HTML files written in languages other than English use a character encoding to specify the meaning of characters in the range from 128 to 255. For example, a Russian document might have the CP1251 encoding, which uses these characters for Cyrillic letters. By default, dtSearch will try to automatically detect the encoding of these types of documents based on an analysis of the contents. If you find that the auto-detection is not working for your documents, you can specify the encoding that dtSearch should assume for documents that do not specify one. To do this, select an encoding from the drop-down list under **Default character encoding**.

File Segmentation

Menu option: **Options > Preferences > File segmentation**



The File Segmentation Rules dialog box provides a way to tell dtSearch that certain text files should be indexed as many subdocuments instead of treating each file as a single large document.

The maximum supported size for each individual segment is 16 Mb.

You can set up any number of rules specifying how groups of files will be subdivided. Each rule includes the following elements:

Rule name
The name of a rule is used only to identify it in the File Segmentation rules dialog box.

New document starts at
This is a marker that indicates when a new document begins. For email message files, this is often part of a message header such as "Date:" or "From:". To avoid incorrectly splitting a message, this marker should be as unique as possible.

How to check for document boundaries in text

Each line of a file will be compared against the marker under **New document starts at**. Three types of comparison are available:

Require exact match -- The entire line must exactly match the marker.

Match start of line -- The start of the line must match the marker.

Match regular expression -- The marker is interpreted as a regular expression. A document boundary occurs when the marker is found anywhere in a line. To require a marker to begin at the start of a line, precede it with the ^ character.

Ignore case

Match a document boundary even if the capitalization does not match.

First segment in a file is header for other segments

Check this box to have dtSearch insert the first segment in a file in every following segment. This option is useful when segmenting XML or HTML files, because it allows the HTML or XML header to be repeated for each segment.

Filename filters

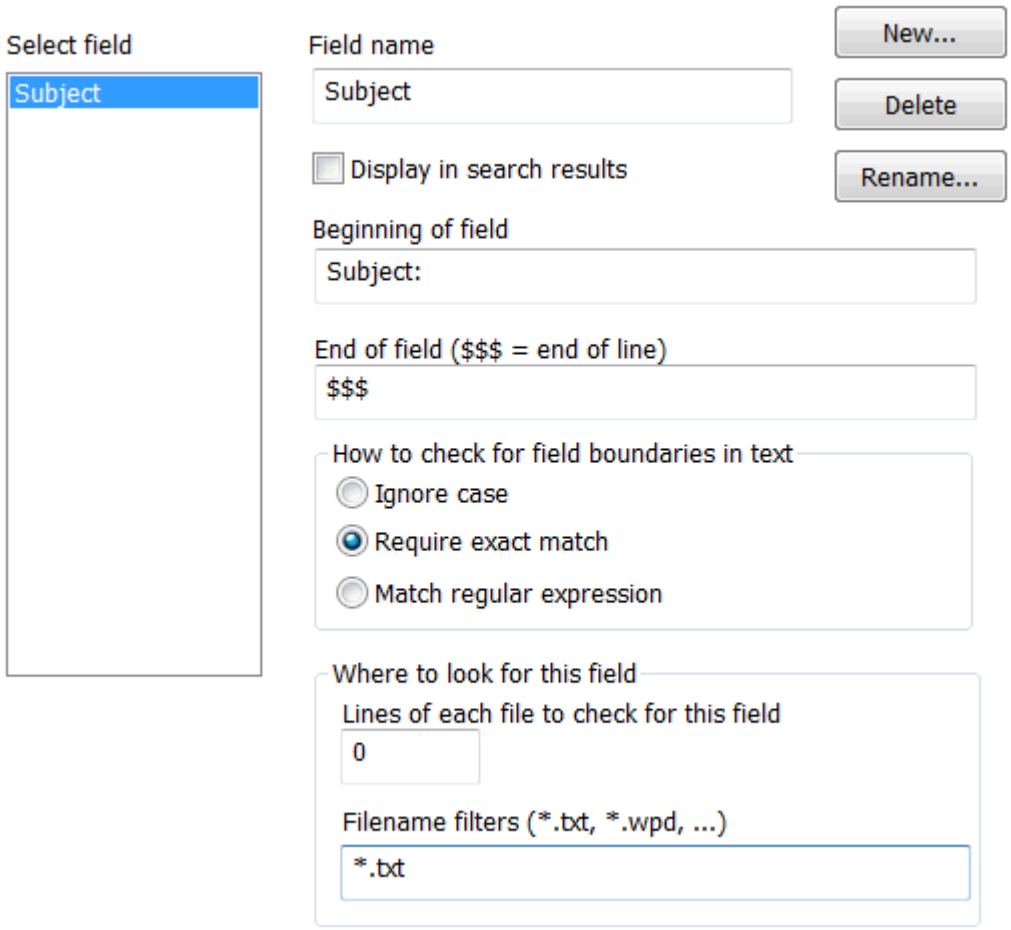
For each rule, a filename filter determines which files the rule applies to. If more than one rule could apply to a particular file, the first one to match the filename is the one applied.

Documents processed with file segmentation must be text files, XML, or HTML. If you use file segmentation with XML or HTML files, use the **First segment in a file is header for other segments** checkbox to make sure that the XML or HTML header is repeated for each segment.

In search results, each subdocument in a segmented document will have a name that identifies the location of the subdocument in its disk file.

Text Fields

Menu option: **Options > Preferences > Text fields**



Text fields are fields that dtSearch can extract from documents based on markers in the text. For example, you could create a "Subject" field that contains everything from the word "Subject:" to the end of the line. A field definition will apply to documents indexed after you have defined the field.

To create a new field, click **New...** and enter the name of the field.

Display in search results
If you check this box, the field will appear as a column in search results.

Beginning of field
Enter text that identifies the start of this field. The text can be any combination of letters or symbols.

End of field
Enter text that identifies the end of this field. To indicate that a field ends at the end of the line, enter $$$ here.

How to check for field boundaries in text
There are three ways dtSearch can check for the field boundaries you specify: **Ignore case** ("Example" would match "EXAMPLE", "example", etc.), **Require exact match**, and **Match regular expression**.

Where to look for this field
You can tell dtSearch to only check for a field in a certain number of lines of each file, and you can enter filename filters to disable scanning for a field except in files matching the filters.

Search Options

Menu option: **Options > Preferences > Search options**

Search dialog box font
Use the **Search dialog box font** setting to change the font in the search dialog box to a font different from your system default. For example, you may want to use the Arial Unicode MS font (included with Microsoft Office) so that you can search for words in languages that your default system font cannot display. To change one of the fonts, un-check the **Use default** box and then click the **Choose Font...** button to select a font.

Auto-complete search terms
Check this box to have dtSearch automatically complete your search terms as you enter a search request. When you press SPACE, dtSearch will find the word in the index that starts with the letters you have typed so far, and insert that word in the search request. For example, you could type "examp" and a space and dtSearch would insert "example" in your search request. With this setting off, you can still auto-complete search terms by pressing Shift-SPACE.

Index List

Show index finder
The index finder lets you select indexes from the list by typing part of the name. To use "find indexes", in the Search dialog box press Ctrl+F and type any part of an index name. As you type the index list will update to only show matching index names. You can also use the * and ? wildcard characters to find indexes using wildcard matches.
Press Ctrl+Q to quickly check only the first listed index and return to the search request box, or press ENTER to just return to the search request box.

Index Groups
Index groups provide a way to organize your indexes in the Search dialog box to make very large numbers of indexes easier to manage.

If you check the **Show indexes by group** option, dtSearch will group related indexes in the Search dialog box. When groups are enabled, if an index name contains a colon, then the part before the colon is considered to be the group. For example, if an index is named "Business: Records", then the group is "Business". In the Search dialog box, "Records" would appear under a collapsible "Business" group heading.

Search Results Format

Menu option: **Options > Preferences > Search results**

Items to include in search results
Check an item to add it to the columns displayed in search results.

Window layout
Choose whether you want to see search results on the left and documents on the right (vertical split) or search results on top and documents below (horizontal split).

Column sizes
Choose how you want dtSearch to size columns when search results open.
Size columns to fit window ensures that the columns will fit in the window without horizontal scrolling, even if some columns are too small to display all of the text.
Size columns to fit content ensures that all columns are large enough for their content.
Remember column widths tells dtSearch to remember manually-resized search results column widths.
You can click the <--> symbol in the upper left corner of search results to automatically resize columns to fit the window or the content. Each time you click the <--> symbol it will switch between the first two methods of resizing.

Search results font
Choose the font to use for the search results list.

Synopsis color...
If the First hits in context box is checked under Items to include in search results, then dtSearch will display, after each item in the search results list, a line with the first few hits in the document in context. Use this setting to change the background color for this line of text.

Always find the first hit when opening a document
Check this box to have dtSearch jump right to the first hit when a file is opened.

Automatically open the first document in search results
If this box is not checked, the document pane will be blank after a search until you double-click a document in search results.

Display the PDF Title as the filename for PDF files
Display the HTML <TITLE> as the filename for HTML files
HTML and PDF files have "Title" property that usually provides a more informative name than the filename. For example, rpt2002.html might have the title "2002 Annual Report". Check this box to see the title rather than the filename in the search results list. (You can

still see the filename for any item in search results by hovering the mouse over it and looking at the status bar at the bottom of the dtSearch window.)

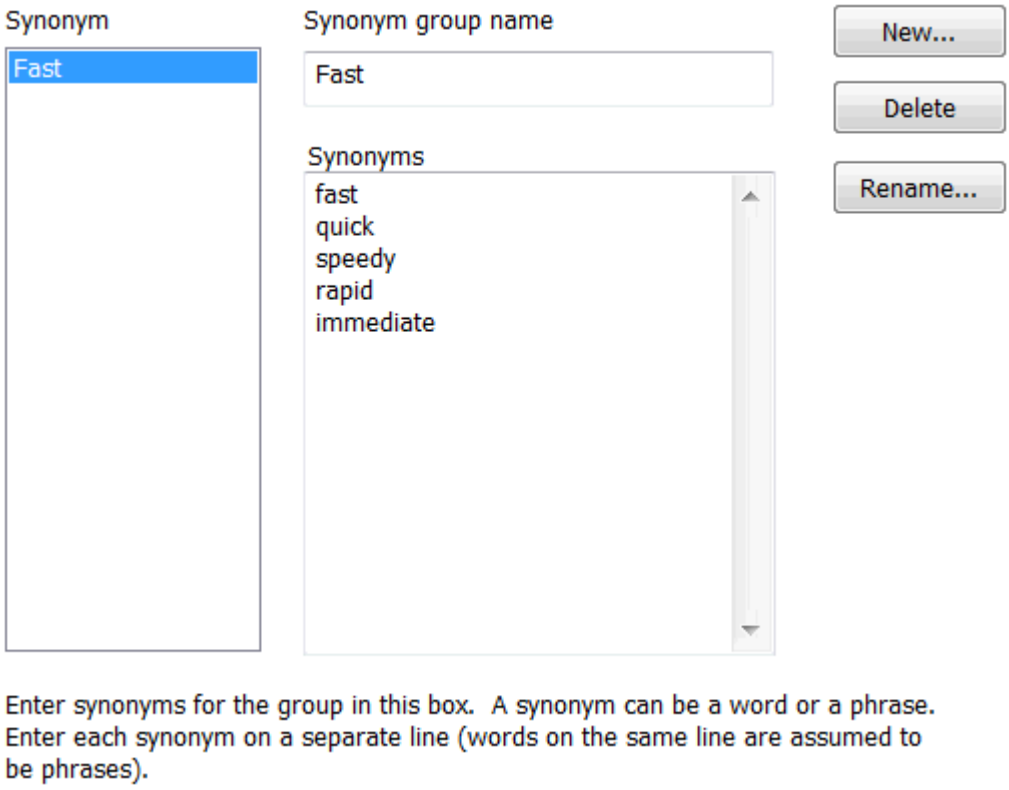
Remember sort order from previous search
By default, dtSearch sorts search results according to the sort setting in the Search dialog box, which has options to sort by relevance, hit count, or date. After a search you can click the column headers in search results to sort by other document properties, such name or size. Check this box to have dtSearch remember this sort order and apply it to subsequent searches.

Use older (2022) search results control
Check this box to use the older search results control from dtSearch versions before 2023. Changing this setting takes effect the next time you run dtSearch.

Number of search results lists to keep
Enter the number of previous searches you want dtSearch to save, so you can see them in Search History.

User Thesaurus

Menu option: **Options > Preferences > User Thesaurus**



A synonym group is a group of words or phrases that dtSearch treats as equivalent when performing a search. For example, if you define a synonym group to include ***improve***, ***ameliorate***, ***amend***, ***better***, and ***help***, then a search for ***improve*** would also find any of the other words in the group.

Synonym searching works in combination with other search features like stemming. If you enable both synonym searching and stemming in the above example, a search for ***amending*** would also find ***improving***, ***helped***, etc.

To create a synonym group:

1. Click the **New...** button in the **User Thesaurus** tab of the Preferences dialog box and enter a name for the synonym group. The name you select has no effect on searching and is just used to identify the group.

2. Enter the words and phrases in the synonym group, one word or phrase on each line.

To edit an existing group:

1. Click on a group in the list. The synonyms in that group will appear in the **Synonyms** list.

2. Edit the list, adding or deleting words or phrases as needed.

Document Display

Menu option: **Options > Preferences > Document display**

Display of long text files
Very large text files can take a long time to open in the dtSearch viewer. By default, documents larger than 16 megabytes will open in "Report" view, which shows each hit with a specified amount of context. To switch between the report view and the full text of the document, press CTRL+R or click **View > View as Report**.

Report view
A report view of a document shows just the hits with the amount of context you specify, either in paragraphs or words. (dtSearch can also generate a search report, which shows the hits from all documents in the search in a document that opens in your word processor.)

Automatically update hit locations when opening documents with out-of-date index information
If a document was modified since it was last indexed, or if it was indexed with an older version of dtSearch, then word locations in the index for the document may be out of date. Check this box to ensure that hit highlighting appears correctly after a search, even when index information is out of date.

Display images in documents
Check this box to make images visible in documents that you open in dtSearch.

Block references to remote content (such as images or stylesheets)
Uncheck this box to allow dtSearch to download remote content referenced in a document. Allowing downloads of remote content is not recommended unless you trust the source of the document.

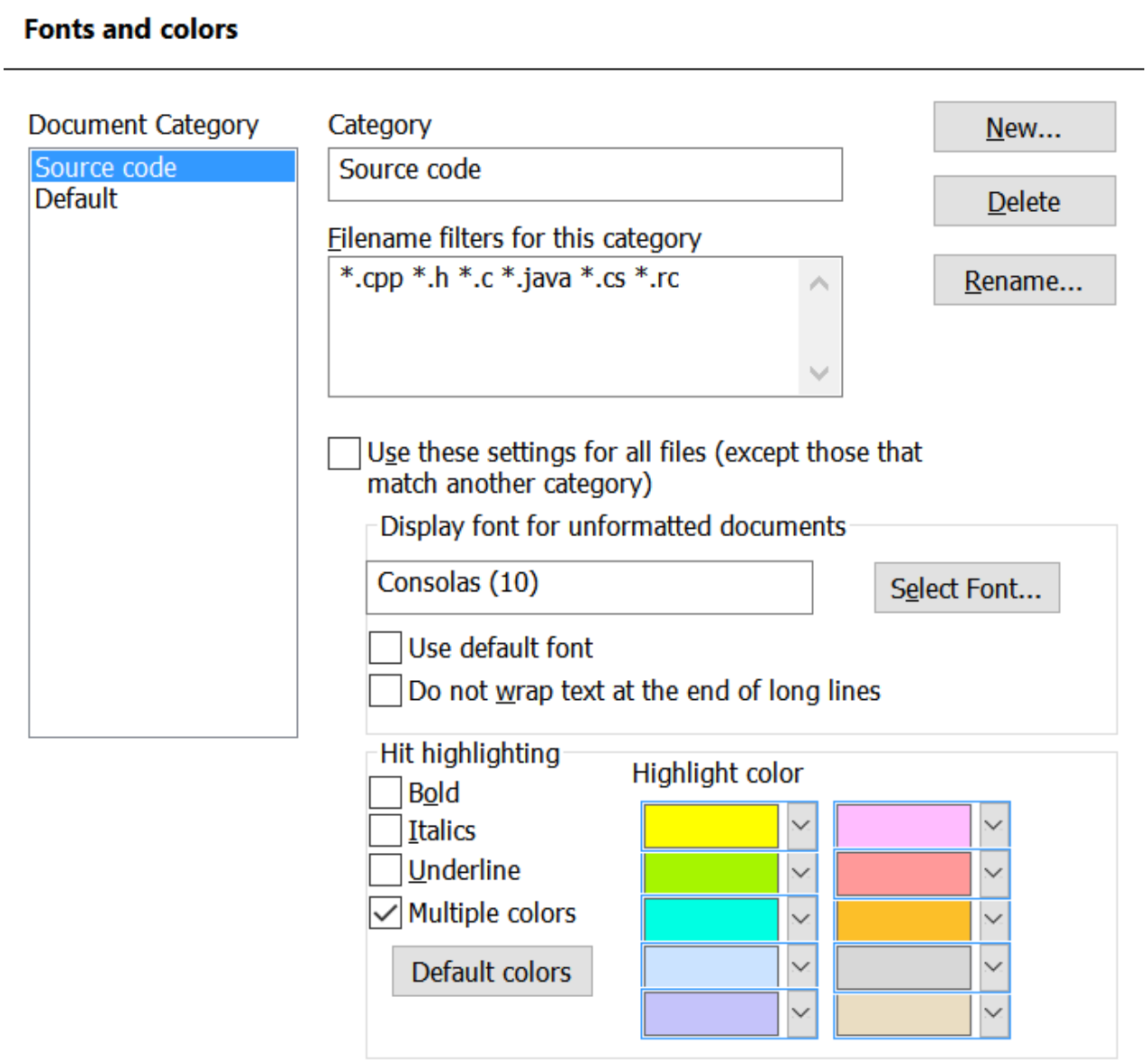
Display HTML files with a <base> tag referencing the original location
This option affects how links in HTML files are interpreted when a document is opened after a search. With a <base> tag, links in an HTML file to other documents referenced by relative location can continue to work. However, this can prevent internal links within an HTML file from working because those will also reference the original HTML file rather than the hit-highlighted version displayed in dtSearch.

Disable JavaScript when displaying a retrieved HTML document
Some HTML files have JavaScript that will generate errors when the HTML is viewed outside of its normal context. Check this box to disable JavaScript in HTML files when

they are displayed in dtSearch. (This setting only affects the display of a file in dtSearch and will not affect the original document.)

Document Fonts and Colors

Menu option: **Options > Preferences > Fonts and colors**



The **Fonts and colors** settings let you modify the format dtSearch uses to display retrieved files. You can set different display options for different categories of documents. For example, you could have all files with a .CPP or .H extension displayed using the Courier font, and use Arial for other documents.

To create a new document display category

1. Click **New...** and enter a name for the category.

2. Under **Filename filters**, enter filters like *.doc that identify the documents to be covered by this category. If you check the **Use these settings for all files** box, the category covers any documents that do not fall into one of the other categories.
3. Either select a font or check the box to use your web browser's default font. The font you select will only apply to documents that do not already have font formatting, such as text files.
4. For some file types, such as reports formatted as text or program source code, "wrapping" the text at the end of long lines makes the file harder to read. Check the **Do not wrap text at the end of long lines** box to tell dtSearch to display these files without word wrapping.
5. Under **Hit highlighting**, select the features that you want to use to identify hits. To highlight hits using a different color for each search term, check the **Multiple colors** box.

PDF Viewing Options

Menu option: **Options > Preferences > PDF view options**

PDF Viewing Options

dtSearch supports these options for opening PDF files after a search:

Standard (recommended)
The standard method used to display PDF files opens an embedded dtSearch window, using an internal PDF viewer.

View PDF files in a separate Adobe Acrobat window
Open PDF files outside dtSearch in a separate Adobe Acrobat window. For this option to work, Acrobat must be your default PDF viewer in Windows. If the dtSearch PDF Search Highlighter plug-in for Adobe Acrobat is installed (see below), hits will be highlighted in Acrobat.

View PDF files as plain text
Display PDF files in a simple text view without using the PDF viewer.

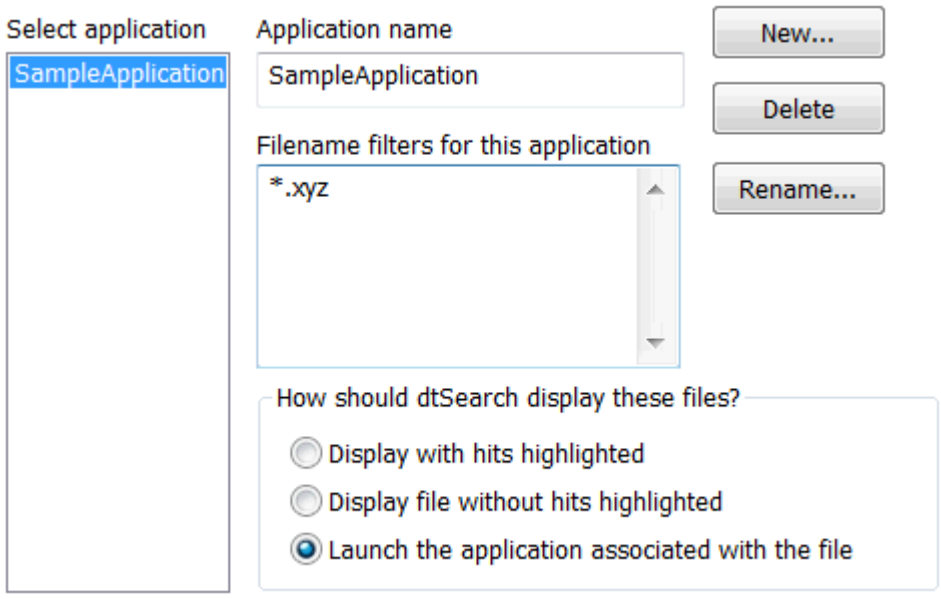
Location for temporary copies of PDF files
Sometimes dtSearch must create a temporary copy of a PDF file to display it. Use this setting to specify a location to use instead of the default, which is the Windows TEMP folder.

Highlighting hits in Adobe Acrobat

dtSearch can highlight hits in PDF files within Adobe Acrobat using a plug-in. If the plug-in is not installed, click **Configure Plug-in** to install it, or you can download it from https://download.dtsearch.com/pdfhl

External Viewers

Menu option: **Options > Preferences > External viewers**



Use the **External Viewers** dialog box to tell dtSearch how you want your documents to be displayed. The default is to display documents using the built-in dtSearch viewers. To specify a different viewing method, click **New...** in the dialog box and enter a name for the application or document type, then enter one or more filename filters identifying the documents, and click on one of the three viewing options:

1. **Display file in dtSearch with hits highlighted.**
2. **Display file in dtSearch without hits highlighted.** dtSearch will display the file using Internet Explorer or an Internet Explorer plug-in.
3. **Launch in the application associated with the file.**

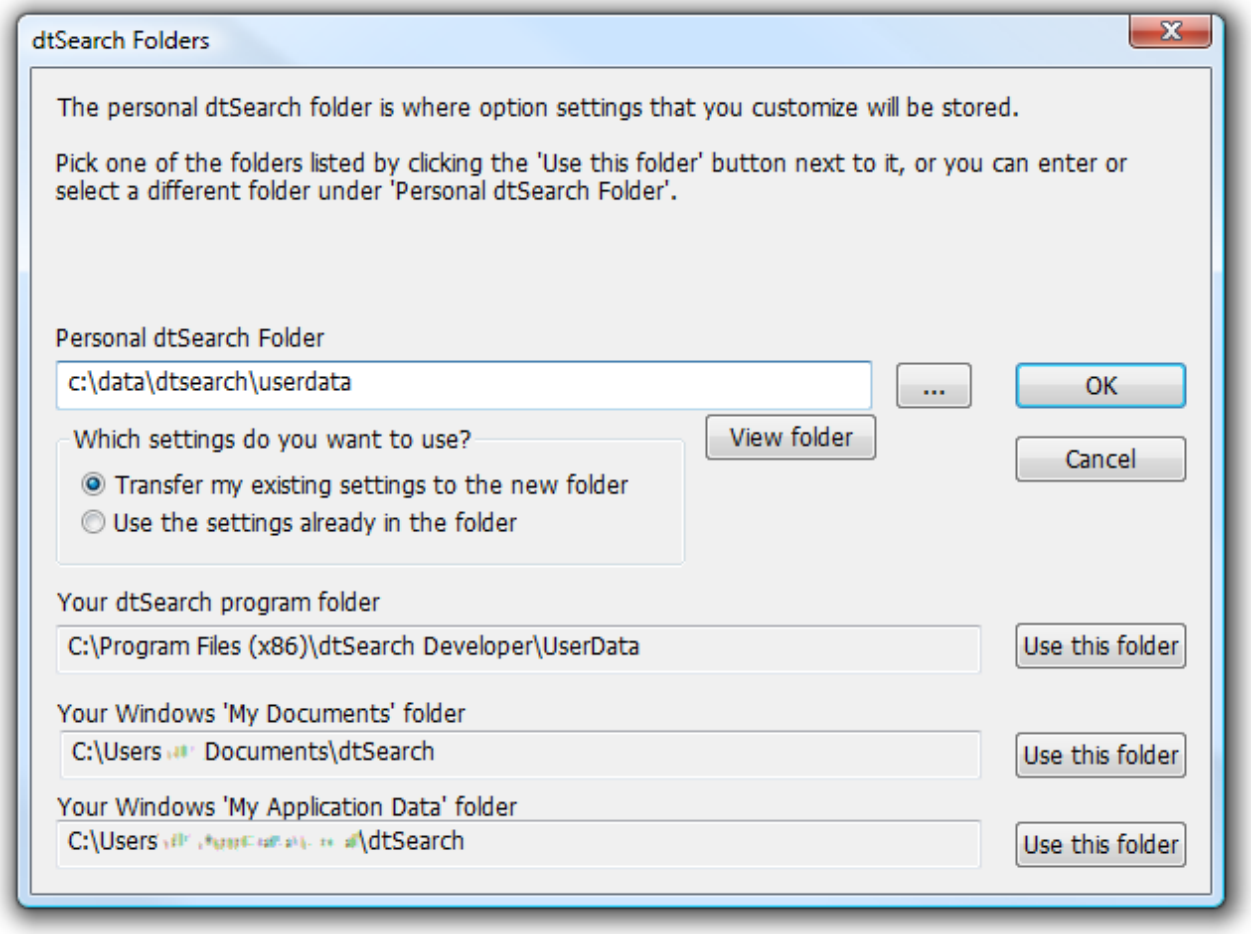
Settings Files

Menu option: **Options > Change dtSearch folder**

Your Personal dtSearch Folder is where dtSearch options files and search results are saved. When you run dtSearch the first time, dtSearch will ask where you want to put this folder. The default location is a "UserData" folder located under your dtSearch program folder (for example, c:\Program Files\dtSearch\UserData).

A separate option setting controls the default location for new indexes. See Indexing Options for information on this setting.

The Personal dtSearch Folder can be specified on the command-line by using the /dir command-line switch.



Transfer my settings to the new folder
Select this option to copy settings from an existing folder to the new folder. Any settings in the new folder will be replaced.

Use the settings already in the folder
Select this option if the new folder already has a set of options files that you want to use.

Files in this folder include:

File	Purpose
default.abc	Alphabet definition file
extview.xml	External viewer options
fields.xml	Text fields definitions
filetype.xml	File type specifications
fileseg.xml	File segmentation rules
macros.xml	User-defined macros
stemming.dat	Stemming rules
thesaur.xml	User-defined thesaurus entries

Your UserData folder is usually a folder named UserData under the dtSearch program folder. To find out where your UserData folder is, click **Options > dtSearch** Folder.

A "template" folder under the dtSearch program folder contains template files:

File	Purpose
SearchReportTemplate.rtf	Template used to generate search reports.
SearchListTemplate.rtf	Template used to make a printable list of search results items.

If you change these template files, save the changed versions in your UserData folder rather than in the templates folder. Otherwise, they may be overwritten the next time you install or upgrade dtSearch.

Stemming Rules

Stemming rules vary from one language to another. dtSearch includes a set of stemming rules designed to work with English. These rules are in the file stemming.dat, which is installed to the "data" folder under the dtSearch program folder. If you need to implement stemming for a different language, or you want to modify the English stemming rules, you can create a new set of stemming rules to be used in place of stemming.dat.

Stemming rules consist of a series of lines like this:

```
3+ies -> Y
4+ing ->
```

The first rule would convert any word with three or more letters followed by ies to the same initial letters followed by y. ***Applies*** would turn into ***apply***.

The second rule would remove the ***ing*** from any word with four or more letters followed by ***ing***. ***Fishing*** would turn into ***fish***, but ***sing*** would not change.

In general, a rule consists of: a minimum number of letters (not including the suffix), a + sign, a suffix to be removed, an arrow (->) and the replacement for the suffix, if any. Stemming rules must use lower-case letters only.

When stemming a word, dtSearch will look at each rule in order until it finds one that applies. If it finds a rule, dtSearch will apply the rule and then start over, repeating the process until the word does not change. The result is the "stem" of the original word.

Sometimes you may want to create a rule with an exception. For example, suppose you want to remove a trailing "s" in a word, unless the word ends in "ss". To do this, you would use these two rules:

```
3+ss -> ss
3+s ->
```

If a word ends in "ss", dtSearch will never get past the first rule and will give up stemming the word because the rule "3+ss -> ss" does not change the word. Only words not ending in "ss" will get to the next rule, which removes the trailing "s".

To help with stemming rules customization, dtSearch includes the STEMTEST utility. STEMTEST will allow you to try out your stemming rules, entering words and seeing what the resulting stem words are.

Accessibility Options

Menu option: **Options > Preferences > Accessibility**

Use compact resizable dialog boxes
At high text magnification levels, the standard dtSearch dialog boxes can be too large to work with. By default, dtSearch will use compact resizable dialog boxes in this situation, which can be resized and are organized to take up less screen space. This option lets you enable or disable compact resizable dialog boxes.

Suppress single-character shortcut keys in dialog boxes
Windows dialog boxes allow single-character shortcuts to access controls. For example, if a button is labelled "Open" with the O underlined, pressing Alt+O or just O will activate the button. Check this box to require Alt+O instead of just O, so a single character cannot activate or access a control.

Send screen readers an aleter message with a summary of the results of a search or index update
Check this box to get a pop-up notification when a search or index update complete. This forces screen readers to read the text of the notification.

Make the scrolling word list in the Search dialog box accessible to screen readers
Check this box to enable screen readers to narrate the contents of the scrolling word list in the Search dialog box.

Enable caret browsing
Caret browsing adds a cursor to the document window in dtSearch, which can make keyboard navigation and text selection easier.

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