QuickSearch

QuickSearch is a really fast tool for searching words or sentences in documents. The search can be done inside one or more documents, in one or more folders and in one or more disk. When the word or the sentence is found, the name of the document file, the complete path name of the folder and the text line containing the word or the sentence are shown. You can also optionally see the line number and the offset from the beginning of the file. All this information can be saved on disk.

QuickSearch has been optimized to search very quickly. Completely written in assembler, QuickSearch use very specialized routines to scan document at blazing speed. To achieve good performance, the code makes optimal use of the microprocessor's internal registers and short branches (under 256 bytes). The result is impressive, on every type of Macintosh. The specialized routines being very compact, all 32 bits CPUs (68020, 68030 and 68040) gain speed thank to their CPU cache.

Naturally QuickSearch makes optimal use of available memory. The more RAM is plentiful, the more QuickSearch is efficient. You can set memory size via the Get Info box for the application (Command-I or Get Info when QuickSearch icon is selected). Ideally, it should be a little bit greater than the largest document, but QuickSearch works well even in cramped conditions. With less memory, disk accesses are more frequent, which means that some speed degradation should be expected...
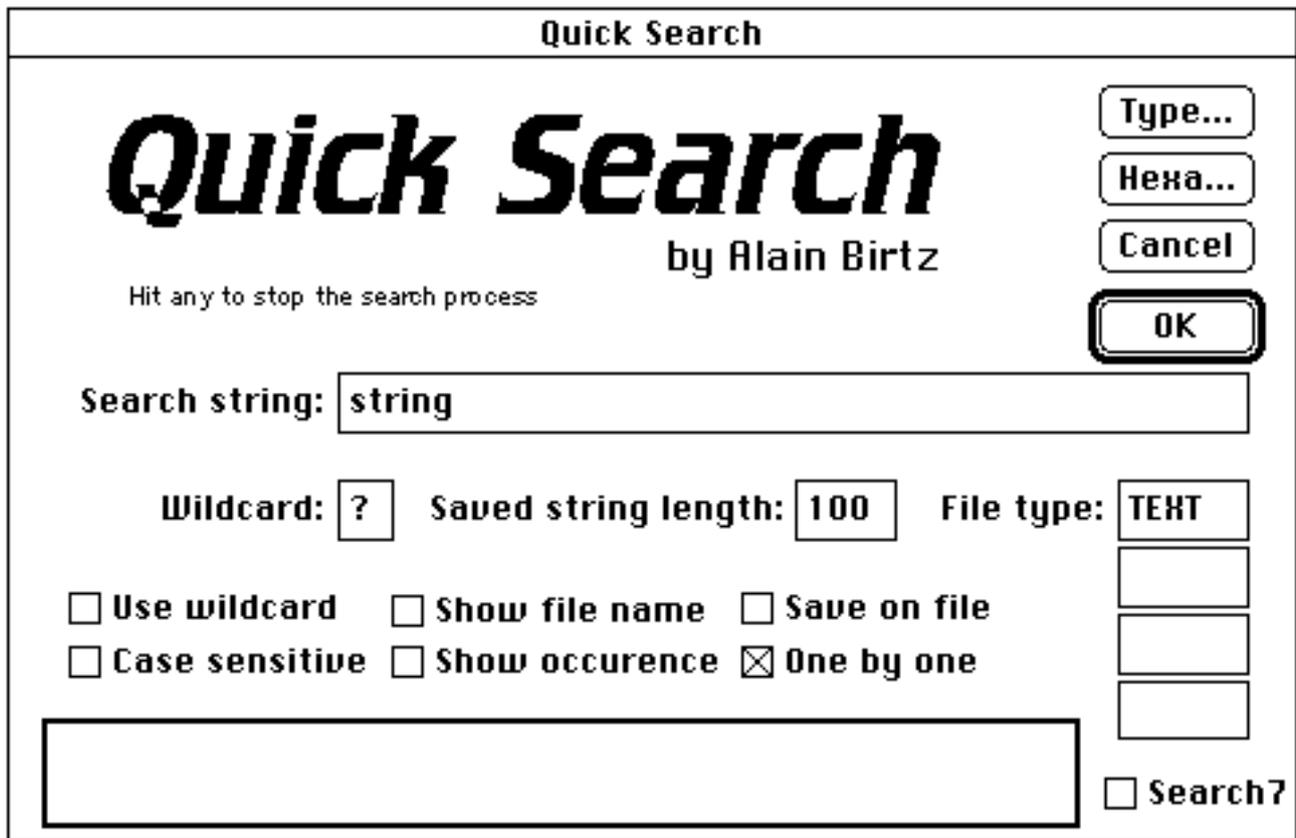
The dialog box above is shown when QuickSearch is opened. You can quit with the "**Cancel**" button. You can also quit via the **QUIT** menu, with Command-Q or by closing the window. Enter the word or sentence to search in the edit box named "Search string". The "**OK**" button starts the search.

If you don't know the exact spelling of the word or sentence to search, you can use a wildcard (match every character). QuickSearch gives you the choice of the wildcard (edit box named "**Wildcard**" with the '?') and gives you the opportunity to search with or without the wildcard ("**Use wildcard**" check box). For example, the search of **c?n?er** find the words: **center**, **cancer**, **cinder** but also the middle of "you **can er**ase..." (the second wildcard replacing the blank space between "can" and "erase"). The search can also be made case sensitive ("**Case sensitive**" check box).

The two checkboxes "**Show file name**" and "**Show occurrence**" display, in the rectangle below, the file name of the scanned document and the text line of the last word or sentence found. The check box "**One by one**" forces a break after each word or sentence found. The dialog box below is then shown.

```
┌─────────────────────────────────────────────────────────┐
│                                              ┌──────────┐ │
│   ┌──────────────────────────────┐          │ Continue │ │
│   │  FOUND ONE OCCURENCE AT:     │          └──────────┘ │
│   │                              │          ┌──────────┐ │
│   └──────────────────────────────┘          │  Cancel  │ │
│                                              └──────────┘ │
│        Line no: 4                            ┌──────────┐ │
│                                              │ Next file│ │
│        Offset: 189                           └──────────┘ │
│                                              ┌──────────┐ │
│                                              │   Open   │ │
│   ┌────────────────────────────────────────────────────┐ │
│   │ string  asis                                       │ │
│   ├────────────────────────────────────────────────────┤ │
│   │ HD:MPWƒ:zTools:qs_24.a                             │ │
│   └────────────────────────────────────────────────────┘ │
└─────────────────────────────────────────────────────────┘
```
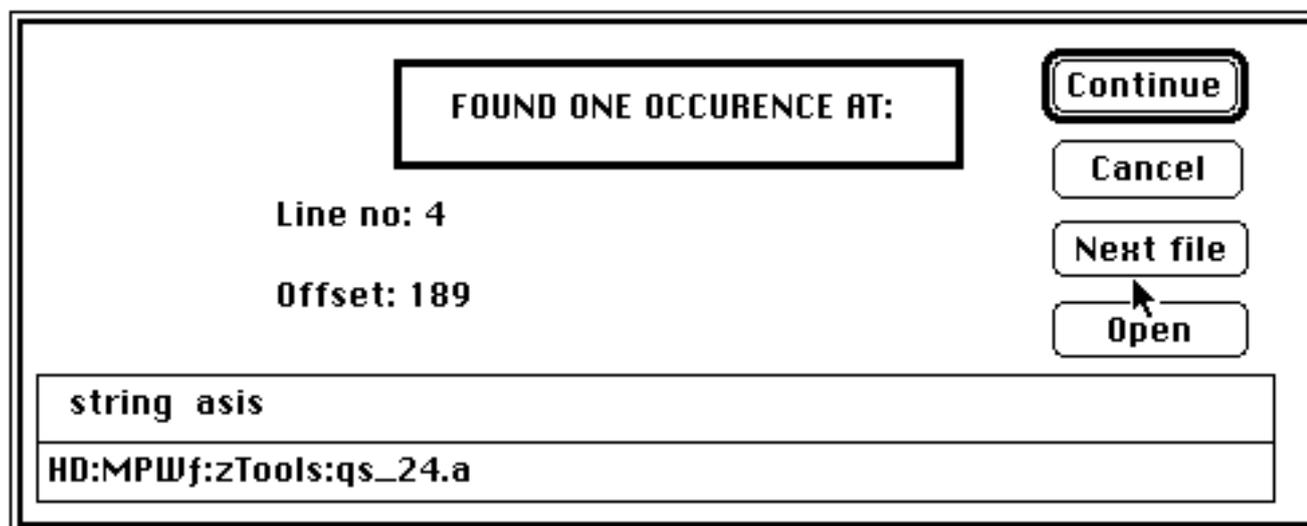
Here, the word "**string**" is found in the text line "**string asis**". This line is the line number 4 in the document "**qs_24.a**" inside the folder "**zTools**" in folder "**MPWƒ**" of hard disk "**HD**". The first character (the "s" of string) is the byte no. 189 from the beginning of the file "**qs_24.a**". Click the "**Continue**" button to continue the search in the same document. Click the "**Next file**" to search the next document. Click the "**Cancel**" to abort. Note that the line, and the complete path name where the word or sentence was found, are put in edit box to easily cut and paste between applications. You can open the document (here "**qs_24.a**") with the "**Open**" button. The document is opened by the application that created the document. To return and continue the search, click **QuickSearch** in the application menu (last icon in the menu bar). Warning: the "**Open**" button is available only for system 7.0 or higher.

The two checkboxes "**Show file name**" and "**Show occurrence**", and the checkbox "**One by one**" are mutually exclusive: in the first two cases, the files are continuously scanned, in the latter case, the search stops after each word or sentence found.

However you can stop the search, at any time, by hitting any key. At this moment, or when the search

is done, the total number of occurrences and the number of file scanned are shown.

With the check box "**Save on file**" you can save on file all the information about the word or the sentence found. A standard file selector box (below) is displayed to get the file name.
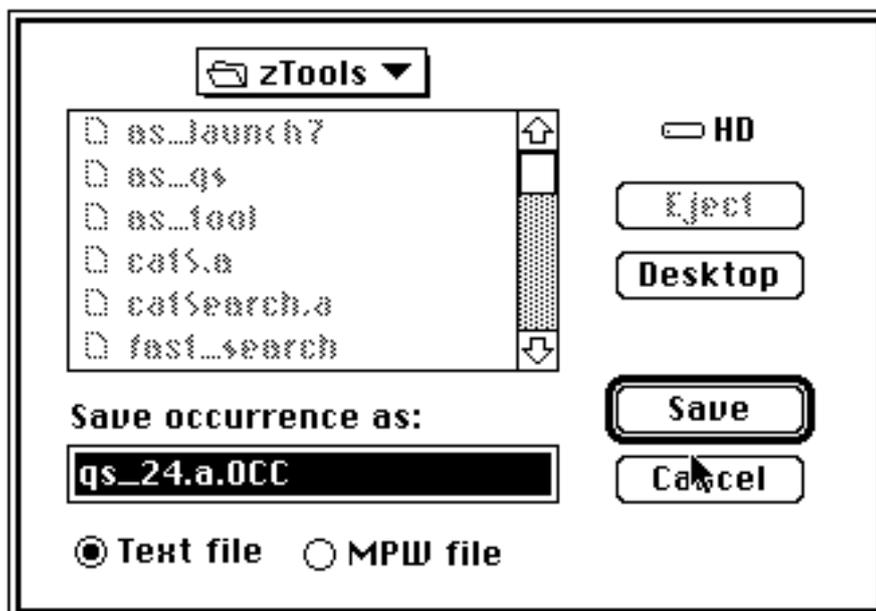
The two radio button "**Text file**" and "**MPW file**" give you choice between two different file types.

"**MPW file**" is a special format for the owner of Macintosh Programmer Workshop. The text file created is a MPW Shell document and it is useful only for MPW text document. If you highlight a line of info and hit the Enter key, then MPW Shell opens the target file, puts the cursor on the word or sentence found, and highlights the word or sentence.

"**Text file**" save the information like as shown below, for each occurrence of the word or sentence found:

File: HD:MPW𝑓:zTools:qs_24.a   Line no: 4   File offset: 189
string asis

"**Saved string Length:**" sets the maximum number of characters being saved. The default value is 100. If the line containing the word or sentence found is less than 100 characters in length then entire line is saved. If there are more than 100 characters then only the 100 characters in middle of the line are saved.

The check box "**Search7**" is for system 7 only. In the system 7, there is a new function (_CatSearch) to search files on disk. When the check box "**Search7**" is checked and when a search must be done on an entire disk, QuickSearch calls _CatSearch instead of doing a recursive search. My own test do not show any improvement by using this technique! But Apple said that thing must be done like this, so...

QuickSearch can search in multiple types of documents (up to four). The four types are shown in the four edit boxes stacked near "**File type**". You can write the types directly in the edit box or use the button "Type..." to let QuickSearch do the job. When you click the "**Type...**" button, the following dialog appears:
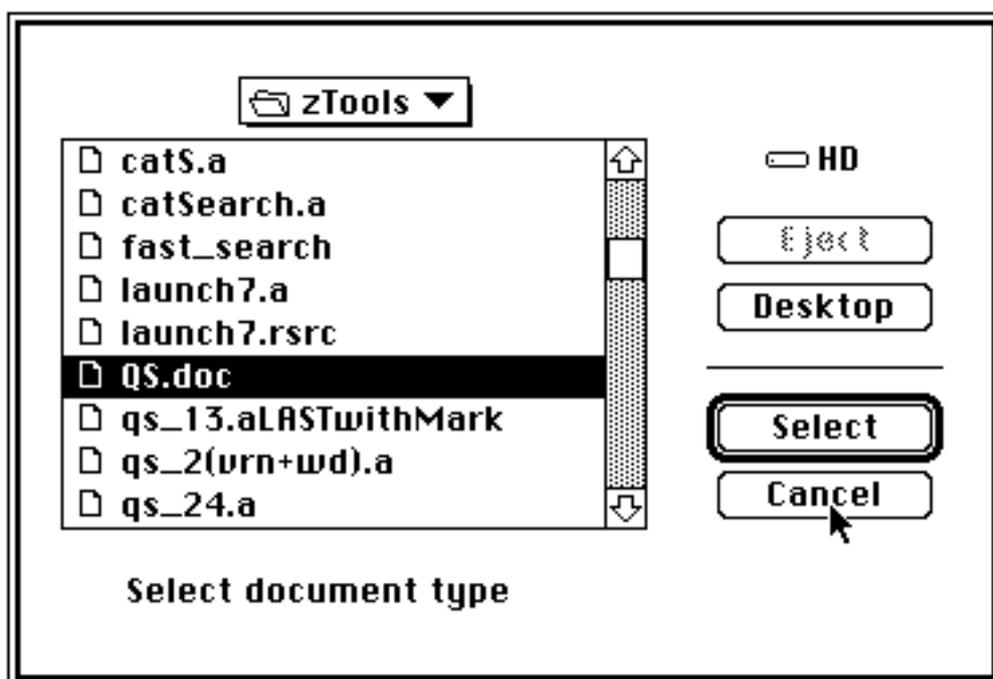
You select any document of the requested file type (search is done for this type of document). That file type is added to the previous one. If there are already four types present, then the selected file type replaces the last one. If there is no file type specified, then all the documents, without regards to their file type, are scanned.

Note: you must select the document, not the application creating the document.

The last button, "**Hexa...**" (in the main dialog window) is useful mostly to programmers. The given hexadecimal string is converted to an ASCII string and pasted in the edit box named "**Search string**". It is this sequence of hexadecimal numbers that QuickSearch will search for. The "**Hexa...**" button displays the following dialog box:
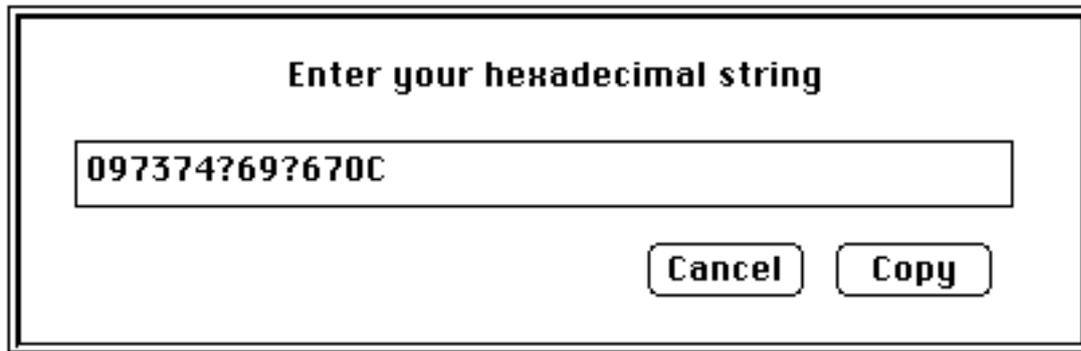
```
┌─────────────────────────────────────────────────────┐
│                                                       │
│         Enter your hexadecimal string                 │
│                                                       │
│    ┌───────────────────────────────────────────┐     │
│    │ 0973374?69?670C                           │     │
│    └───────────────────────────────────────────┘     │
│                                                       │
│                      ( Cancel )  ( Copy )             │
│                                                       │
└─────────────────────────────────────────────────────┘
```

Given this string, QuickSearch would search for a **TAB** character followed by the word **st?i?g** followed by a Carriage Return character. One occurrence found would be: a TAB followed by the word 'string' at the end of a line (the two character "?" are wildcards). You can use a wildcard only when the check box "**Use wildcard**" is checked. If the hexadecimal string is not valid, QuickSearch selects the last invalid character.

How it works

The "**OK**" button starts the search. The standard file selector dialog, shown below, asks for the target file, folder or disk. If the user wishes to save the results on file, a second standard file selector dialog asks for the name of the file. The search can be stopped by pressing a key.

```
┌──────────────────────────────────────────────────────────┐
│  ┌────────────────────────────────┐                       │
│  │   Select current directory     │                       │
│  └────────────────────────────────┘                       │
│          ┌──────────────────┐                             │
│          │ 🗀 zTools  ▼ │                                 │
│          └──────────────────┘                             │
│   ┌─────────────────────────────┬──┐      ⊂⊃ HD          │
│   │ 🗋 qs_2(vrn+wd).a          │⇧│                        │
│   │ 🗋 qs_24.a                  │  │    ┌──────────┐       │
│   │ 🗋 qs_25.a                  │  │    │ Desktop  │       │
│   │ 🗋 qs_26.a                  │  │    └──────────┘       │
│   │ 🗋 qs_27.a                  │  │    ┌──────────┐       │
│   │ 🗋 qs_28.a                  │  │    │  Eject   │       │
│   │ 🗋 s7.a                     │  │    └──────────┘       │
│   │ 🗋 search.r                 │  │    ┌──────────┐       │
│   │ 🗋 tl4.a                    │⇩│    │   Open   │       │
│   └─────────────────────────────┴──┘    └──────────┘       │
│    Select a file or a directory:        ┌──────────┐       │
│   ┌─────────────────────────────┬──┐    │  Cancel  │       │
│   │ System Folder:            │⇧│    └──────────┘       │
│   │ theorist:                   │  │    ┌──────────┐       │
│   │ qs_24.a                     │  │    │   Done   │       │
│   │ search.r                    │⇩│    └──────────┘       │
│   └─────────────────────────────┴──┘    ┌──────────┐       │
│                                          │   Add    │       │
│                                          └──────────┘       │
│                                          ┌──────────┐       │
│                                          │  Remove  │       │
│                                          └──────────┘       │
└──────────────────────────────────────────────────────────┘
```
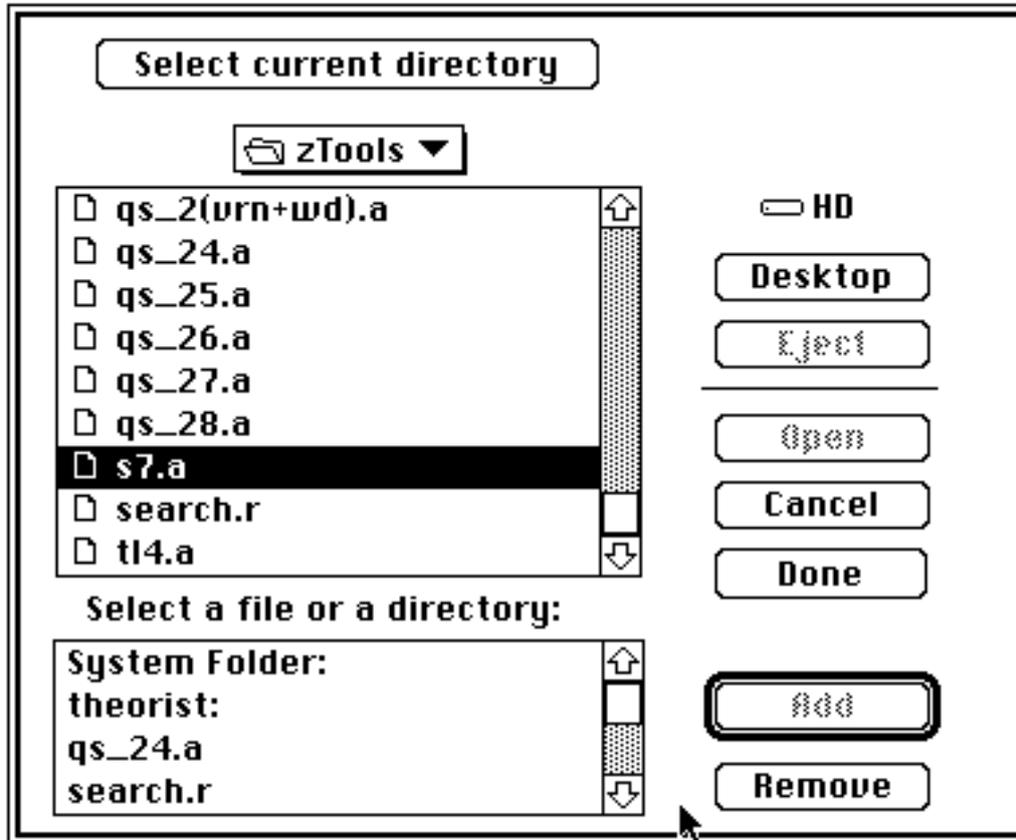
The target file/folder/disk is shown in the bottom window of the selector box. A folder name or a disk name always ends by a colon (:). To add a file/folder/disk just double-click in the upper window or select a file/folder/disk name and click the "**ADD**" (or hit the "**Return**" or "**Enter**" key). To remove a file/folder/disk in the bottom window select the name and click the "**Remove**" button. To add the current folder/disk (here it is the folder "**zTools**"), click the "**Select current directory**" . When your choice of target file/folder/disk is complete, click the "**Done**" button to begin the search.

At the end of each session QuickSearch saves the user preferences: search string, file types, target file/folder/disk…

QuickSearch is a public domain software. QuickSearch is free. You can give it freely to anybody. But please, keep the documentation and application together. If you have suggestions about QuickSearch, or if you find bugs, please contact me via CompuServe: [72467,2770]

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Alain Birtz (February 1993)