

WSARCH32 Help Index

If you have any questions about WSARCH32 or have problems getting it to run, email David Woakes (david.woakes@dial.pipex.com) with a detailed description of the problem and how if possible it can be replicated, the version of WSARCH32 you are using, the Winsock stack you are using and it's version.

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File menu commands

The File menu offers the following commands:

| | |
|-----------------|---|
| Open | Loads a search result as saved earlier. |
| Save | Saves the current search results in so that they can be reloaded at a later date. |
| <u>Retrieve</u> | Attempts to retrieve the selected file using FTP. |
| <u>Expand</u> | Performs an archie query to find out what files are in the selected directory. |
| Status | Gets a status message from the archie server. |
| Exit | Exits WSARCH32. |

Edit menu commands

| | |
|----------------|--|
| Copy File | Copies the currently selected file name to the clipboard. |
| Copy Directory | Copies the currently selected directory name to the clipboard. |
| Copy Host | Copies the currently selected host name to the clipboard. |
| Copy URL | Copies the currently selected file to the clipboard formatted as a URL, eg <code>ftp://the.host.computer/path/name/file.name</code> |

Options menu commands

The options menu offers the following commands:

| | |
|-------------------------|--|
| <u>User Preferences</u> | Allows the user to specify default Archie server and search type. |
| <u>FTP Setup</u> | Allows the user to specify the FTP client to be used to retrieve files. |
| Manage Archies | Allows the user to add and remove the names of archie servers from the list of known archie servers. |

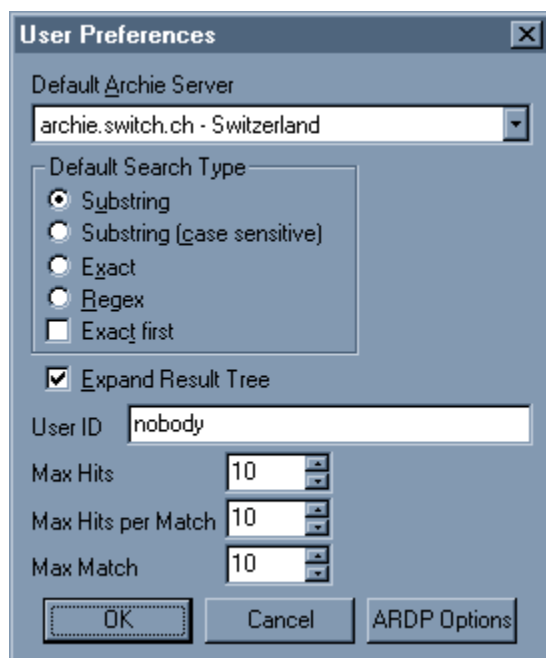
Help menu commands

The Help menu offers the following commands, which provide with help for this application:

| | |
|---------------|--|
| Help Contents | Brings up the Contents page. |
| Help Topics | Offers you an index to topics on which you can get help. |
| About | Displays the version number of this application. |

User Preferences (Options menu)

When this command is selected the following Dialog will appear:



The selections for default Archie server and default search method will be stored and used as the default startup values, next time you run WSARCH32.

The Expand Result Tree check box if checked will mean that the main result tree will be displayed expanded when a search is retrieved.

The User ID field is used in the Archie Request to identify you. This does not need to be changed from 'nobody', the default value.

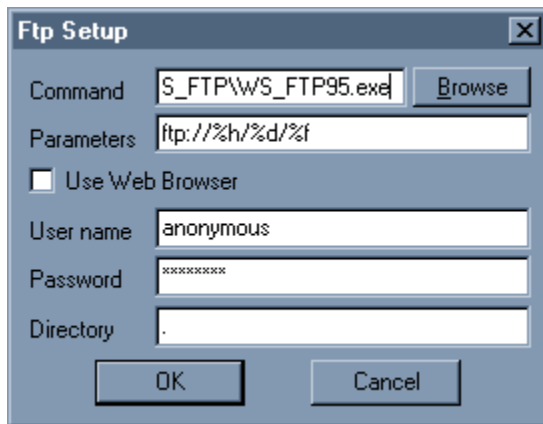
The Max Hits field maybe set to any value from 1 to 1000 and is the maximum number of results that the archie server will make. Setting this to a low value like 20, will help to decrease the amount of time taken to perform your query.

The Max Hits PM field maybe set to any value from 1 to 1000.

The Max Match field maybe set to any value from 1 to 1000.

FTP Setup (Options menu)

When this command is selected the following Dialog will appear:



The command field should be filled in with the full executable name of the ftp program you wish to use (NB if you have used Wsarch32 in the past then there may be some extra command line parameters still in this box which will cause problems when attempting to retrieve files. The solution is to remove them and place them in the parameters box below).

The browse button can be used to locate the executable you wish to use.

The parameter field should contain the command line parameters that will be used to retrieve the command file. There are several special character combinations that may be used in this box which will be substituted when you are retrieving a file with values taken from the search result. These are as follows

Symbol Substituted with:

- %h The name of the machine of the file currently selected.
- %d The directory in which the file selected resides.
- %f The name of the selected file.
- %u The user name entered in the user name box of this dialog.
- %p The password entered in the password box of this dialog.

For details of the command line options that can be used your choice of FTP program, see the documentation accompanying it. (For WS_FTP, click on the help button and then select the command line options topic. I use the parameter string "ftp://%h/%d/%f" with WS_FTP.).

The use web browser check box if ticked will cause wsarch32 to attempt to retrieve the file using your default web browser. Note that both the contents of the command box and the parameters box will be ignored if this box is checked. (NB I have encountered one FTP server that didn't accept Netscape's default anonymous login password).

The User name field should be filled with the username you intend to have substituted above.

The Password field should have the password you intend to have substituted above. For the user name anonymous, your email address should be used.

The Directory field is the download directory that you wish to use. Note that the way this is implemented is that wsarch32 will change directory to the directory specified and then launch the FTP program before reverting to it's default directory. It might be that

Help Contents command (Help menu)

Use this command to display the opening screen of Help. From the opening screen, you can jump to step-by-step instructions for using WSARCH32 and various types of reference information.

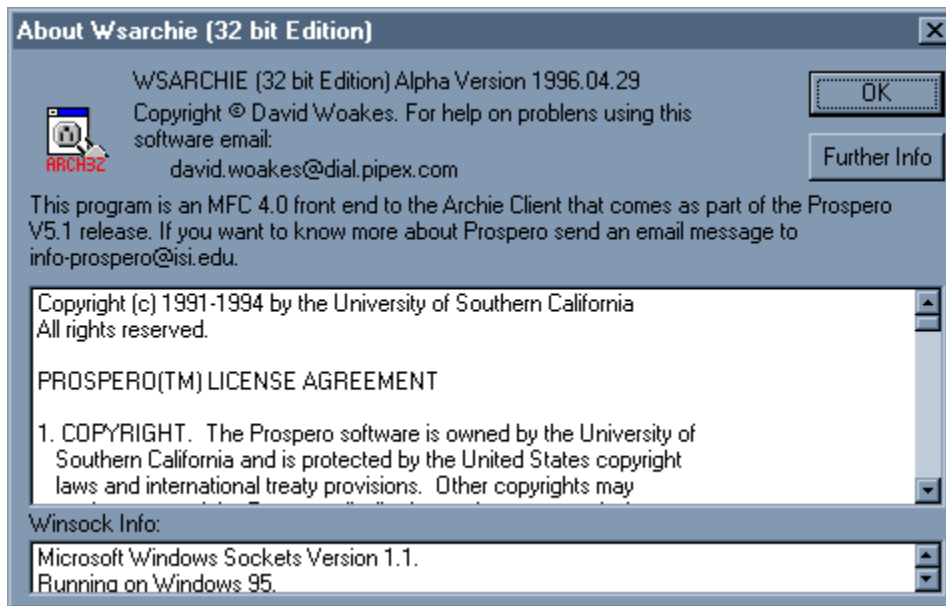
Once you open Help, you can click the Contents button whenever you want to return to the opening screen.

Help Topics command (Help menu)

Use this command to display the Help index.

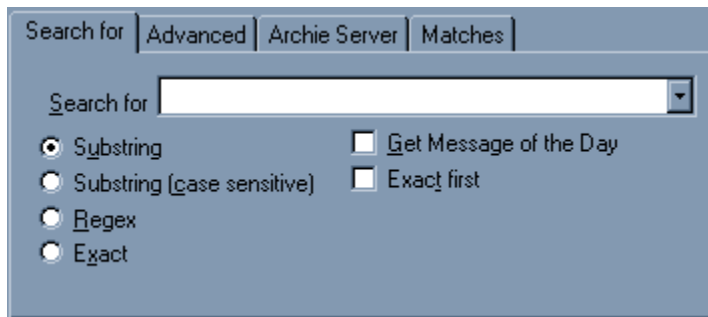
About command (Help menu)

Use this command to display the about dialog.



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Performing an Archie Query

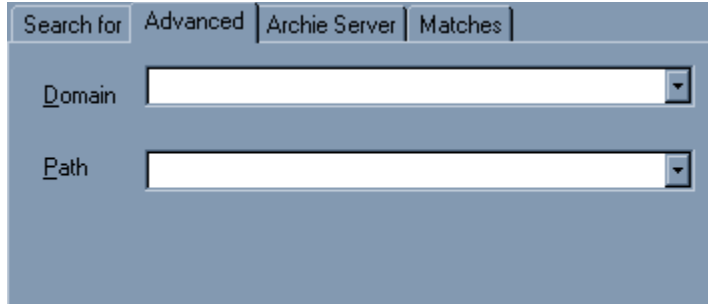


The screenshot shows a dialog box with a title bar containing tabs: "Search for", "Advanced", "Archie Server", and "Matches". The "Advanced" tab is selected. Below the tabs is a "Search for" text box. To the left of the text box are four radio buttons: "Substring" (selected), "Substring (case sensitive)", "Regex", and "Exact". To the right of the text box are two checkboxes: "Get Message of the Day" and "Exact first".

1. To perform a query enter a search string in the Search for box.
2. Select a search type using the radio buttons on the left of the dialog. See [Search Type](#) for an explanation of how the search type affects the way that the search is performed.
3. If desired check the Get Message of the Day button. If available this will be displayed when the search returns (NB the server may return a message of the day even when this box is not checked).
4. To start the query press return, Alt+E or use the mouse on the "Search button". The "Search for", "Archie Server" and "Domain" boxes are disabled along with the search type radio buttons and the "Search" button. The "Abort" button is enabled.

If desired the user may abort the search at any stage by pressing Alt+B or by selecting the "[Abort](#)" button.

Advanced search options



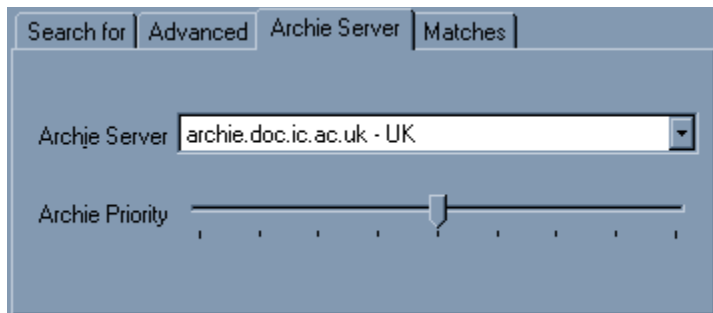
The screenshot shows the same dialog box as above, but with the "Search for" text box disabled and replaced by two text boxes: "Domain" and "Path". Both text boxes are currently empty.

Use these options to restrict the search.

The Domain field is used to restrict the search to a subset of hosts within a particular domain, e.g. ".ac.uk" will restrict the search to academic sites in the UK. It is also possible to use pseudo domains, and those reconized by archie.doc.ic.ac.uk are available in the drop down box.

The Path option allows the search to be restricted to files where the path (directory) name contains this string.

Selecting an Archie server



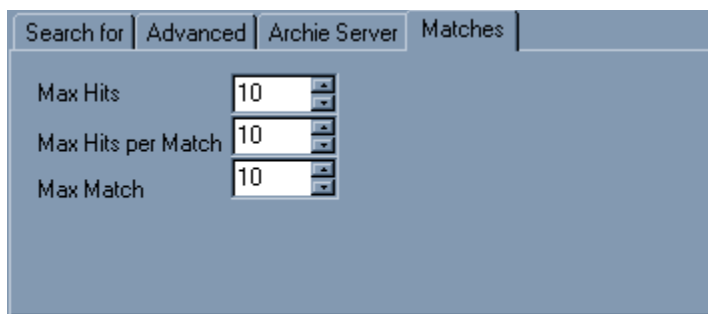
This drop down list box contains the list of archie servers that are in the "Archies" section of the registry. The default archie server is displayed in the box when the program is first started.

The list supplied is that given by archie.doc.ic.ac.uk at the time of release.

When the search is started, the Archie Server name is truncated at the first '*' or white space (tab or space) in the name.

The Archie priority slider allows the priority of the query to be adjusted. Moving the slider to the right increases the requested priority and to the left decreases it. Normal priority is got by keeping the slider in the middle position. There is little to be gained from increasing the priority, indeed the likely effect is that the server will actually downgrade your query as if you had specified a lower priority. So no point in being greedy! I would recommend the central position of the slider be used (the default) unless you are not in a hurry when the slider could be adjusted to the left!

Setting match parameters



Max Hits Allow the find command to generate at most the specified number of matches (permissible range: 1-1000)

Max Hits per Match Across all the anonymous FTP archives on the Internet (and even on one single anonymous FTP archive) many files will have the same name. For example, if you search for a very common filename like "README" you can get hundreds even thousands of matches. You can limit the number of files with the same name through this variable. For example a value of 100 tells the system only 100 files with the same name. Note that the overall maximum number of files returned is still controlled with the 'Max Hits' variable.

Max Match This variable will limit the number filenames returned. For example, if Max Match is set to 2 and you perform a substring search for the string "etc", and the catalog contains filenames "etca", "betc" and "detc" only the filenames "etca" and "betc" will be returned. However, depending on the values of maxhitspm and maxhits you will get back a number of actual files with those names.

Query progress

Whilst the query is being performed, various status indications are given in order that the progress of the query may be seen. The indications are in the status bar, and also in the title bar of the application. The following is a brief description of the stages of an archie query

1. A name look up is done to translate the name of the archie server to numeric form.
2. When this completes a request is put together and sent to the archie server. At this point the title bar changes and will give the name of the archie server along with the initial time out period. If no response is received, the time period is doubled and the request re-transmitted. This will be repeated up to three times before the request is deemed to have failed.
3. If a packet is received, the archie server will send back an acknowledgment from which may contain queue position and system time. You will not be advised of any changes in either of these, as they are sent once only by the archie client. The values returned are displayed in the status bar. The time out period will also be set to a value advised by the archie client, usually 900s if it your query is not going to be performed immediately.
4. The next packet from the archie server usually adjusts this to 180s and is a good indication that your query is now being processed.
5. When packets start to arrive the time out is then reduced to 4s and the packets received are indicated in the status bar. When the total number of packets is known this will be displayed as "packet x of y", otherwise "packet x" is displayed.
6. When the last packet is received, WSARCH32 will translate the results. If there are a large number of matches, this can take several seconds.
7. The results will then be displayed in the Result View. The first host will be displayed selected. The directories on that host that contain matches are then displayed with the first directory selected. The files in that directory are then displayed with the first file selected. Further details on the selected file are displayed in the file details section.

Search For box

The term that will be used for the search should be entered in this box. How this will be interpreted by the server is dependent on the Search Type selected. The term is basically a simple string, e.g:

WSARCH32
pkz204g.exe

etc.

Search Type

The type of search performed by the archie client is determined using the search type radio buttons.

The choices have the following effects:

- Substring:** A simple, everyday substring search. A match occurs if the file (or directory) name in the database contains the user-given substring.
- Substring (case sensitive):** As above but the case of the strings involved becomes significant.
- Exact:** The fastest search method of all. The restriction is that the user string (the argument to the 'prog' command) has to **exactly** match (including case) the string in the database. This is provided for those of who know just what you are looking for.
- regex:** Use ed(1) regular expressions. Searches the database with the user (search) string which is given in the form of an ed(1) regular expression.

NOTE: Unless specifically anchored to the beginning (with ^) or end (with \$) of a line, ed(1) regular expressions have "." prefixed and appended to them. For example, the following are equivalent

. *xnlock.* and **xnlock**

Thus the regex match becomes a simple substring match.

For example:

knob - matches any string containing the substring '**knob**'

a*splat - matches strings that contain zero or more **a**'s followed by the string '**splat**'

#.*# - would match anything containing a **#** followed by zero or more occurrences of **_any_** character, followed by another **#**

Other special characters that may be useful are '[' and ']', which are used together. They can be used to specify either a set of characters to match or a set of characters to not match. An example of the first case is:

[abcd]

which matches any of one of the four letters, while an example of the second case is:

[^abcd]

in which the **'^** in the **first position** means that any character **not** in the list will be matched.

Ranges can be specified with a '-':

[a-z]

matches any lower case letter and,

[^a-z]

matches any character other than a lower case letter.
Furthermore, you can specify multiple ranges such as:

[%@a-z0-9]

or

[^A-Za-z]

meaning: match '%' or '@' or any lower case letter or digit, and
match any character other than a letter, respectively.

When you want to match a character which has a special
meaning you should precede it by a back slash, '\':

Some final examples of REs are:

[Mm]ac\.txt - match anything containing the string "Mac.txt" or
"mac.txt"

[^aeiou][^aeiou]* - match any string consisting entirely of non-
vowels

foo-v[0-9]\.tar\.Z - match "foo-v0.tar.Z" through "foo-v9.tar.Z"

Exact first

This is a check box and is means that the exact search method
will be used first. If no matches are found then the method
selected using the radio buttons will be used. This box is
disabled if the exact search method is chosen.

Note that changing the search type selected after the search is performed will have no effect on the
displayed list of matches.

Archie Server

This drop down list box contains the list of archie servers that are in the "Archies" section of the registry. The default archie server is displayed in the box when the program is first started.

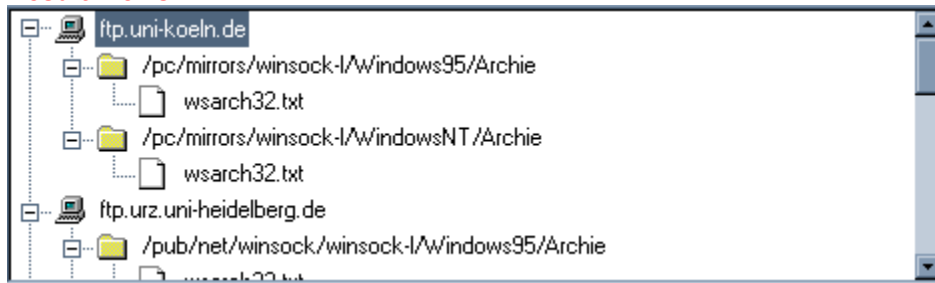
The list supplied is that given by archie.doc.ic.ac.uk at the time of release.

When the search is started, the Archie Server name is truncated at the first '*' or white space (tab or space) in the name.

Aborting a query


A query can be aborted at any stage by pressing Alt+B or selecting the "Abort" button.

Result Views



The result view displays the result as a tree view.

File details

| Filename | Unix Modes | Size | Modified | Host IP Address |
|--|------------|-------------|--------------------|-----------------|
|  wsarch32.txt | -rw-rw-r-- | 12660 bytes | 10-Jun-1996 19:... | 134.95.100.0 |

This section of the result display contains the following fields:

| | |
|---------------------|---|
| File Name | This is the full name of the file. It is prefixed with "FILE: " if it is a file and "DIRECTORY: " if it is a directory. |
| Size | This is the size of the file in bytes. |
| Mode | This is the access mode of the file. |
| Date | This is the file's own date stamp. |
| Archie Date | This is the date that archie server last checked the file's existence. |
| Host Address | This is the numeric internet address of the host upon which the file resides. |

Status Bar

The three boxes at the end of the status bar are used as follows (going from right to left):

The time that the archie server thinks it will take to process the query, when it starts the query.

The queue position when the query is received

The number of packets received, along with the total number of packets expected (when known).

Common Problems

The following is the list of known problems with WSARCH32 and how they can be solved.

1. There is no response from the server, even though you can telnet to it.

This is usually caused by a firewall on your site blocking the incoming packets because they are UDP packets. You will need to talk to your network supervisor. WSARCH32 can be configured to use a non privileged port number above 2050 (the actual number may vary), so there shouldn't be problems with letting them in. Some administrators take a different view and refuse to let these packets in. There is nothing I can do if you cannot get the network administrator to change there philosophy.

The actual port used can be adjusted using the ARDP options dialog accessed via the User Preferences dialog. It is best not to alter the default values unless the setup is not working.

Try the latest version of WSARCH32 available from <http://dspace.dial.pipex.com/david.woakes/>.

Another cause for this is that you are using the 16 bit version of the Trumpet Winsock stack, and have installed Microsoft's TCP/IP. Either remove Microsoft's TCP/IP and get a hold of Trumpets 32 bit winsock for Windows 95, or remove Trumpet and use Microsoft's TCP/IP (which is pretty good, or so I think!).

2. You get the message "WINSOCK ERROR: NO_DATA: No entry found".

This means that the name server lookup failed. Try using telnet to connect to the archie client. If this succeeds from the same machine then there is a problem with name resolution. If you are probably using Chameleon's winsock, try reducing your list of name servers to one or check whether the latest version fixes this.

More about WSARCH32 and the Author

WSARCH32 was written by David Woakes. It could be said that WSARCH32 started off life as WSARCHIE which was a 16 bit Windows 3.1 windows archie client.

I started writing WSARCHIE in January 1994. I had been playing around with the Internet for a year using Linux and Microsoft Windows. I had found XArchie (an archie client for X Windows) and thought it a pretty good idea. At the time I could only find one Winsock Archie Client (which I believe was written by Peter Tatum, the author of the Trumpet Winsock stack) and decided I could make a better job of it.

I was at the start of a lean spell workwise (I work as a computer contractor and didn't have a contract!) and so decided that with my newly aquired PC and Visual C++ V1.0 compiler to start writing my very own Archie Client. Fortunately I didn't have to start absolutely from scratch as Archie Clients make use of the Prospero Protocol as devised by Clifford Neuman, and the Prospero distribution included an UNIX archie command line client. This formed the basis of my program and so all I had to do was to get it to compile and run using a 16 bit compiler! I think my very first Windows Archie Client was released and initially distributed on the demon FTP server.

It was fairly challenging but also very satisfying as gradually more and more people began to use it and started sending email thanking me for making such a good job of it (and a few who thought it could be improved!).

Around August last year a realistically priced 32 bit Windows operating system became publically available along with a 32 bit compiler (oh alright - Windows 95 and Visual C++ V2.0) and so I decided to start working on a 32 bit version of my program. It took me a while to come up with the first version which used Windows 95's more attractive controls (namely the tree and list views), but just before Christmas 1995 I released the first version.

At this stage WSARCH32 still used both the PFS and ARDP libraries out of the Prospero release. I finally decided that the PFS library was limiting the useability of the program and decided to dispense with it. The main improvements this gives is that WSARCH32 now displays results as they are available and doesn't require that the full response is received. The binary executable is also slightly smaller.

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This archie client is base upon the archie client that is included as part of the Prospero V5.1a release. Prospero comes with the following notice:

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```
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* Prospero was originally written by Clifford Neuman (bcn@isi.edu) while

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