jwhois

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This file documents the GNU jwhois package, en extended Whois client. This is edition 3.0, for jwhois version 3.0, last updated 6 september 2001.

1 Introduction

JWHOIS is an Internet Whois client that contains an extensible configuration file which defines its operation. The client supports queries to foreign hosts either through the RFC 954 - NICNAME/WHOIS protocol, the RFC 2167 - Referral Whois 1.5 protocol, or HTTP using an external browser.

Upon execution, JWHOIS searches through the its configuration to find the most specific whois server to query. Depending upon the reply from that whois server, JWHOIS can assume the query was successfull and display the result to the user, or optionally redirect the query to another server to find more specific information.

2 Invocation

JWHOIS uses the following command-line options:

'`--version`'
: Print the program version and licensing information.

'`--help`'
: Print a usage message summarizing the command-line options.

'`-c FILE`'
'`--config=FILE`'
: Reads configuration from FILE instead of from the default system global configuration file.

'`-h HOST`'
'`--host=HOST`'
: Overrides any specifications in the configuration file and queries HOST directly.

'`-p PORT`'
'`--port=PORT`'
: Specifies a port number to use when querying a HOST

'`-f`'
'`--force-lookup`'
: Forces a query to be made to a host even if a current object is available from the cache.

'`-v`'
'`--verbose`'
: Outputs verbose debugging information while running (use this before sending a bugreport to ensure that it's indeed a bug and not a misconfiguration). You can increase the verbosity by giving several verbose commands to jwhois, such as '`-vv`'.

'-n'

'--no-redirect'
Disable features that redirect queries from one server to another.

'-s'

'--no-whoisservers'
Disable the built-in support for whois-servers.net.

'-a'

'--raw' Send query verbatim to receiving hosts instead of rewriting them according to the configuration.

'-i'

'--display-redirections'
Display every step in a redirection (default is to display only the last answer).

'-d'

'--disable-cache'
Completely disable both reading and writing to cache

'-r'

'--rwhois'
Force the query to use the rwhois protocoll instead of HTTP or whois.

'--rwhois-display=DISPLAY'
Asks receiving rwhois servers to display the results in the DISPLAY display instead of the default dump display.

'--rwhois-limit=LIMIT'
asks receiving rwhois servers to limit their responses to LIMIT matches.

The query can optionally contain the character '@' followed by a host name to direct the search to that host. This works exactly like specifying the host with '--host' or '-h'.

3 Site Configuration

JWHOIS is configurable via its configuration file, normally called 'jwhois.conf'. This file is looked for in the sysconfdir that was specified when compiling the program (default is '/usr/local/etc/' on most systems).

If no configuration file can be found, JWHOIS will default all queries to whois.internic.net.

An example configuration file that includes most known Whois servers can be found in the example subdirectory of the official distribution. This example configuration also contains a lot of well used options that should be suitable for most setups.

The configuration file is split into a number of blocks. Each block can contain a number of different options which are explained in the sections below. You can also get an overview of the syntax by looking at the example configuration file included in the distribution.

4 Global options

The global options of JWHOIS configure some basic facilities that are to be used for all hosts and queries made.

'`cachefile`'

By default, the location of the cache file is '`/usr/local/var/jwhois.db`', but this can be changed at compile time. The option '`cachefile`' also changes the location.

'`cacheexpire`'

The default expire time for all cached objects it 7 days (168 hours). this can be changed with the '`cacheexpire`' option. The value is the number of hours that objects is considered to be current.

'`whois-servers-domain`'

Whois-servers.net is a service offered by the CenterGate Research Group. They register CNAMEs in the `whois-servers.net` domain for every known top-level domain, pointing to the appropriate whois server.

When querying for '`wildebeest.se`' for example, JWHOIS would look for an address `se.whois-servers.net` and query the appropriate server based on that information.

If you wish to make whois-servers.net-style queries using another domain name than `whois-servers.net`, you can change this option to the domain name you want.

'`browser-pathname`'

'`browser-stdarg`'

'`browser-postarg`'

These options control the HTTP support on JWHOIS. '`browser-pathname`' should be set to the path and executable of the browser you wish to use to download information from HTTP-gateways. This is normally a program such as LYNX or CURL.

'`browser-stdarg`' sets the arguments to pass to the browser in order to have the browser direct its options to the standard output. JWHOIS catches this information and displays it to the user.

'`browser-postarg`' sets the arguments used to enable a LYNX-style processing of POST requests. A LYNX-style processing means that the program, when passed this option, should accept one variable per line of input on standard input, ended with three dashes.

Examples:

```
cachefile = "/var/lib/jwhois.db";
cacheexpire = 168;
browser-pathname = "/usr/bin/lynx";
browser-stdarg = "-dump";
browser-postarg = "-post_data";
```

5 Whois servers

When making a query, JWHOIS looks at the '`whois-servers`' block to determine which host to send the query to. This block consists of a number of rules. Each rule is evaluated in turn, starting with the first one in '`whois-servers`'. A rule consists of a key and a value. The key can be either a special option, or a CIDR block or regular expression that is matched against the query that the user specified.

The special option '`type`' takes one value, either '`cidr`' or '`regex`'. This defines the current blocks matching. Each block can match either with CIDR blocks or regular expressions, never both.

If the key is a regular expression, the value can take on of two forms. Either a single string containing the hostname of the appropriate whois-server, optionally postfixed with a colon and a port number, or a block.

If the value of the regular expression is a block, it can contain any number of options. The options '`whois-server`' and '`query-format`' are supported today.

'`whois-server`' specifies the hostname of the whois server to send a query to, optionally postfixed with a colon and a port number, just as if the value had been a single string containing the whois server hostname.

'`query-format`' rewrites queries matching this rule according to the contents of the options value. The special characters '`$*`' are replaced with the original query. If a '`query-format`' is specified both on an individual rule and on a server option, the most '`query-format`' for the individual rule will be used since it is most specific.

Examples:

```
whois-servers {
        type = regex;

"\\([0-9]+\\.\\)+[0-9]+" = "struct cidr-blocks";
        ".*-[A-Z]+$" = "struct handles";

        ".*" = "whois.internic.net";
};
handles {
        type = regex;

        ".*-RIPE$" = "whois.ripe.net";
};

cidr {
        type = cidr;

        "61.0.0.0/8" {
                whois-server = "whois.apnic.net";
                query-format = "$* /e";
        }
        default = "whois.arin.net";
};
```

6 Server options

The 'server-options' block defines a number of parameters that are specific to each host.

'whois-redirect'
: This option, previously located in a separate content-redirect block of the configuration file, matches output from standard whois servers and redirects the query to another host based on the output.

  The most commonly used option here is to redirect the query from the Internic shared whois server to the whois server of each individual registrar.

  The value of the key 'whois-redirect' should contain a regular expression which matches one or two string. If it matches one string, it will be treated as the hostname of a server to ask for more information. If it matches two strings, the first string will be treated as the hostname and the second as the port number.

  The matching follows standard regular expressions and grouping of regular expressions into one string is done by enclosing the group in parentheses.

'query-format'
: By specifying a 'query-format', the query can be rewritten before being sent to the target whois server. This is useful for example if the server defaults to output its information in another language than English, and you wish to always rewrite queries sent to it according to some syntax that enables output in English.

  The value of this option is a simple string where the special characters '$*' will be replaced with the original query. If a 'query-format' is specified both on an individual rule and on a server option, the most 'query-format' for the individual rule will be used since it is most specific.

'http'
: The 'http' option specifies that this server supports queries made via HTTP. The value should be set to 'true' if this is the case. The options 'http-method', 'http-action' and 'form-element' must also be set for this to work.

'http-method'
: When asking servers for information through HTTP, this option specifies the HTTP method to use. It can be either 'GET' or 'POST'. Many servers support either method, so selecting one is a matter of personal preference.

'http-action'
: This option specifies the action of the HTTP query sent to a remote host. Most often, this is simply the pathname of the URL.

'form-element'
: The 'form-element' is the name of the HTML form element which should contain the query. Usually this is something simple, like 'domain', but you need to verify this by looking at each servers HTML documents before setting this option to its correct value.

'rwhois'
: Set this option to 'true' if the server supports the rwhois protocol, this option makes JWHOIS send all queries to the server as rwhois queries.

'rwhois-display'
: If the server supports rwhois and you wish to select another display than the default dump format, you can set this option to the display you wish to use.

'rwhois-limit'
: If the server supports rwhois and you wish to limit the amount of responses to a query, you can set this option to the number of responses you would like to receive at maximum.

Examples:

```
server-options {
"rwhois\\.nic\\.ve" {
rwhois = true;
rwhois-display = "dump";
rwhois-limit = 10;
}
"whois\\.crsnic\\.net" {
whois-redirect = ".*Whois Server: \\(.*\\)";
}
"whois\\.ncst\\.ernet\\.in" {
query-format = "domain $*";
}
"www\\.nic-se\\.se" {
http = true;
http-method = "GET";
http-action = "/cgi-bin/whois/www-to-whois";
form-element = "domain";
}
}
```

7 RIPE Extensions

RIPE (Rseaux IP Europens) has defined a number of options that can be used against a RIPE-compatible whois server (ripe.net, apnic.net and others). Unfortunately, there is really no way of telling whether a host we are connecting to is RIPE-compatible or not. RIPE extensions are therefore not directly incorporated into the JWHOIS client. A list of the options can be found in RIPE Document 157 which you can get from the RIPE ftp server, `ftp://ftp.ripe.net/ripe/docs/`.

It is possible to use these options together with JWHOIS by changing the format of the query slightly. If you were to search for all entries in the RIPE database which lists the admin-c, tech-c or zone-c as CO19-RIPE, you could use the following command syntax:

```
$ jwhois -h whois.ripe.net -- -i admin-c,tech-c,zone-c CO19-RIPE
```

'`--`' is used to separate the RIPE options from the jwhois options.

8 Reporting bugs

Email bug reports to `bug-jwhois@gnu.org`.

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