

NET.QUADIUM.LDAP

LDAP Library User Manual

Tim Howe
vsync@quadium.net

March 27, 2005

1 Overview

NET.QUADIUM.LDAP is a library for interacting with LDAP servers by means of the OpenLDAP command line utilities. It utilizes the NET.QUADIUM.LDIF library to communicate with these utilities. This approach, while perhaps lacking efficiency (although hopefully this can be ameliorated by means of caching and appropriate scoping to avoid redundant operations) has the advantage that it can be easily ported to any environment which can run subprocesses and has the OpenLDAP clients available.

2 Settings

password-file A string designating file containing a password to be used for LDAP authentication.

simple-auth-p Whether the LDAP utilities should use simple authentication.

ldapsearch-command The command to invoke the “ldapsearch” utility.

ldapmodify-command The command to invoke the “ldapmodify” utility.

3 Filters

NET.QUADIUM.LDAP has the ability to convert search filters from a very Lispy sexp form into that expected by LDAP.

convert-search-filter *filter*

Returns a filter string created from the FILTER sexp.

Example:

```
(convert-search-filter '(and (not (or (= "objectClass" "computer")
                                     (= "objectClass" "group")))
                          (= "location" "millenia*")))
=>
"(&(!(objectClass=computer)(objectClass=group))(location=millenia*))"
```

4 Searching

ldap-search *filter attributes &key base (scope :sub) (password-file *password-file*) (simple-auth-p *simple-auth-p*)*

Searches by FILTER and returns matching ATTRIBUTES. FILTER may be a filter string in the form expected by ldap_search(3), or a sexp which will be converted by CONVERT-SEARCH-FILTER. A null FILTER is equivalent to "objectClass=*". ATTRIBUTES is a list of strings, each string designating the name of an attribute. If ATTRIBUTES is empty, all attributes of a matching record will be returned.

ldap-fetch-by-dn *dn attributes &key base (password-file *password-file*) (simple-auth-p *simple-auth-p*)*

Fetches the object designated by the distinguished name DN. ATTRIBUTES are handled as by LDAP-SEARCH.

5 Modifying

ldap-modify *change-records &key (password-file *password-file*) (simple-auth-p *simple-auth-p*)*

Transmits CHANGE-RECORDS to the LDAP server for execution.