

Can I get more than 1000 records from a DirectorySearcher?

Asked 16 years, 3 months ago Modified 3 years, 3 months ago Viewed 73k times



80

I just noticed that the return list for results is limited to 1000. I have more than 1000 groups in my domain (HUGE domain). How can I get more than 1000 records? Can I start at a later record? Can I cut it up into multiple searches?



Here is my query:



```
DirectoryEntry dirEnt = new DirectoryEntry("LDAP://dhuba1kwtn004");
string[] loadProps = new string[] { "cn", "samaccountname", "name",
"distinguishedname" };
DirectorySearcher srch = new DirectorySearcher(dirEnt, "(objectClass=Group)",
loadProps);
var results = srch.FindAll();
```

I have tried to set `srch.SizeLimit = 2000;`, but that doesn't seem to work. Any ideas?

c#

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edited Mar 28, 2019 at 15:50



Uwe Keim

40.7k ● 61 ● 185 ● 301

asked Sep 18, 2008 at 7:11



naspinski

34.6k ● 38 ● 117 ● 174

It is important to know *what* we are trying to loop through. We might want to loop through a list of LDAP records (aka DirectoryEntry) **OR** the value (of *list* type) of an attribute of *single* LDAP record. Looping through values of an attribute of an LDAP record is required when it is of *list* type i.e. a list of key-value pairs e.g. Value of *memberOf* attribute is of *list* type. This answer explains it : *paging* through DirectoryEntry records **vs** *Range retrieval* for list values of an attribute of a DirectoryEntry record - stackoverflow.com/a/12274460/465053 – RBT Apr 17, 2023 at 5:53 ✎

1 Answer

Sorted by: Highest score (default)



194

You need to set DirectorySearcher.PageSize to a non-zero value to get all results.

BTW you should also dispose DirectorySearcher when you're finished with it



```
using(var srch = new DirectorySearcher(dirEnt, "(objectClass=Group)",
loadProps))
{
    srch.PageSize = 1000;
    var results = srch.FindAll();
}
```

The API documentation isn't very clear, but essentially:

- when you do a paged search, the SizeLimit is ignored, and all matching results are returned as you iterate through the results returned by FindAll. Results will be retrieved from the server a page at a time. I chose the value of 1000 above, but you can use a smaller value if preferred. The tradeoff is: using a small PageSize will return each page of results faster, but will require more frequent calls to the server when iterating over a large number of results.
- by default the search isn't paged (PageSize = 0). In this case up to SizeLimit results is returned.

As Biri pointed out, it's important to dispose the SearchResultCollection returned by FindAll, otherwise you may have a memory leak [as described in the Remarks section of the MSDN documentation for DirectorySearcher.FindAll](#).

One way to help avoid this in .NET 2.0 or later is to write a wrapper method that automatically disposes the SearchResultCollection. This might look something like the following (or could be an extension method in .NET 3.5):

```
public IEnumerable<SearchResult> SafeFindAll(DirectorySearcher searcher)
{
    using(SearchResultCollection results = searcher.FindAll())
    {
        foreach (SearchResult result in results)
        {
            yield return result;
        }
    } // SearchResultCollection will be disposed here
}
```

You could then use this as follows:

```
using(var srch = new DirectorySearcher(dirEnt, "(objectClass=Group)",
loadProps))
{
    srch.PageSize = 1000;
    var results = SafeFindAll(srch);
}
```

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Uwe Keim

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to StackOverflow

125k ● 33 ● 210 ● 341

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- 4 What if there is an early termination in the foreach? Does the result collection still get released? – [kerem](#) Jan 2, 2012 at 13:06

@kerem Perhaps this is not a timely response to your question, but the `using` causes `Dispose()` to be called on even if there was an exception (uses a `finally` block [learn.microsoft.com/en-us/dotnet/csharp/language-reference/using-statement do so]) – [GuacoIV](#) Oct 23, 2020 at 18:14

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- 1 @Joe For some reason I'm finding that "by default the search isn't paged (`PageSize = 0`). In this case up to `SizeLimit` results is returned." doesn't appear to be true when using a `PrincipalSearcher` that has underlying `DirectorySearcher`. It just keeps right on enumerating results. Perhaps the server side or `PrincipalSearcher` overrides this somehow... – [GuacoIV](#) Oct 23, 2020 at 18:18

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- 2 @GuacoIV - it's quite likely that `PrincipalSearcher` is overriding the default behavior, especially since it doesn't expose the `PageSize` and `SizeLimit` properties. You could probably confirm this by examining the `DirectorySearcher` returned by `PrincipalSearcher.GetUnderlyingSearcher` method to see how it's been configured. – [to StackOverflow](#) Oct 23, 2020 at 20:12

You will find a lot of posts on the web about this. Some are really confusing and seem to suggest that no matter what you do there is a server side setting to ruin your day. In AD 2012 onwards, this is the correct answer to retrieve any number of objects using `DirectorySearcher`. I've tried it for 18k results. `srch.PageSize = int.MaxValue`. Works a treat. – [NadimAJ](#) Nov 22, 2020 at 15:04
