

# Re: HELP! Need AD Query for Last login

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*Source:*

<http://www.tech-archive.net/Archive/Scripting/microsoft.public.scripting.vbscript/2005-07/msg00087.html>

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- *From:* "LOST" <[LOST@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx](mailto:LOST@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx)>
  - *Date:* Mon, 4 Jul 2005 10:56:09 -0700
- 

Thanks a million it worked like a charm.....

It took about 45 mins to check all 6100 users in my OU. I can only think that it would take all day if it checked the entire domain of 100,000 users..... Thanks again for the great tips that you provided.

"Richard Mueller [MVP]" wrote:

- > Hi,
- >
- > To restrict the query to one domain, you need to modify the "base" of the
- > search. You want to do this only for the second query that runs on each DC.
- > As written, the variable strBase is defined by the statement:
- >
- > strBase = "<LDAP:// & arrstrDCs(k) & "/" & strDNSDomain & ">"
- >
- > where strDNSDomain is the DNS name of the domain (retrieved from the rootDSE
- > object). For your purpose, redefine strDNSDomain to be the Distinguished
- > Name of the specific OU. For example:
- >
- > strDNSDomain = "ou=Sales,ou=West,dc=MyDomain,dc=com"
- >
- > Unfortunately, you still must query all DC's, as users could have logged in
- > from anywhere and been authenticated by any DC. Finally, if your domain is
- > at Windows 2003 functional level, you can query a single DC for the new
- > attribute lastLogonTimeStamp. This attribute is replicated, although it is
- > only updated if at least a week has passed since the last update.
- >
- > If the original script ran to completion, I'd like to know how long it took,
- > and how long the revised script (restricting the query to one OU) took. From
- > experience, performance depends on the number of remote sites and the speed
- > of the links. Even though the number of users may be much less, the revised
- > script may not be much faster. Still, some people have been very happy that
- > the program finished in an hour, as they had no better alternative.
- >

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> --  
> Richard  
> Microsoft MVP Scripting and ADSI  
> Hilltop Lab web site – <http://www.rlmueller.net>  
> --  
>  
> "LOST" <LOST@xxxxxxxxxxxxxxxxxxxxxxxxxxxx> wrote in message  
> news:760761F5-701B-45BC-9EF4-847D75B7C223@xxxxxxxxxxxxxxxxxxxx  
> > Hi all:  
>>  
>> I am stuck: I need to query a specific OU in a large AD Structure (over  
>> 100K user hence why a specific OU) I need to determine and then export to a  
>> text or excel file all of the users in the OU that have a last login in  
> date  
>> more then 30 days. Now I have read that the last login is not replicated  
> to  
>> all DCs and that one will have to check all DCs for the last login date. I  
>> found a script listed below that will automatically query the domain and  
> find  
>> all of the DCs and then list all of the users that have not logged in for  
> a  
>> long time, but it will only run on the entire domain hence it has to check  
>> all 100K user on each DC and then compare them and it takes for ever! Can  
>> anyone par it down so that it still queries the Domain for all of the DCs  
> and  
>> then determine the last login date over 30 days for a certian OU? Thanks  
>>  
>>  
>> ' Copyright (c) 2002 Richard L. Mueller royalty-free right to use  
>> ' Hilltop Lab web site – <http://www.rlmueller.net>  
>> ' Version 1.0 – December 7, 2002  
>> ' Version 1.1 – January 17, 2003 – Account for null value for lastLogon.  
>> ' Version 1.2 – January 23, 2003 – Account for DC not available.  
>> ' Version 1.3 – February 3, 2003 – Retrieve users but not contacts.  
>> ' Version 1.4 – February 19, 2003 – Standardize Hungarian notation.  
>> ' Version 1.5 – March 11, 2003 – Remove SearchScope property.  
>> ' Version 1.6 – May 9, 2003 – Account for error in IADsLargeInteger  
>> ' property methods HighPart and LowPart.  
>> ' Version 1.7 – January 25, 2004 – Modify error trapping.  
>> '  
>> ' Because the lastLogon attribute is not replicated, every Domain  
>> ' Controller in the domain must be queried to find the latest lastLogon  
>> ' date for each user. The latest date found is kept in a dictionary  
>> ' object. The program first uses ADO to search the domain for all Domain  
>> ' Controllers. The AdsPath of each Domain Controller is saved in an  
>> ' array. Then, for each Domain Controller, ADO is used to search the  
>> ' copy of Active Directory on that Domain Controller for all user  
>> ' objects and return the lastLogon attribute. The lastLogon attribute is  
>> ' a 64-bit number representing the number of 100 nanosecond intervals  
>> ' since 12:00 am January 1, 1601. This value is converted to a date. The  
>> ' last logon date is in UTC (Coordinated Universal Time). It must be

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```
>> 'adjusted by the Time Zone bias in the machine registry to convert to  
>> local time.  
>>  
>> ' You have a royalty-free right to use, modify, reproduce, and  
>> distribute this script file in any way you find useful, provided that  
>> you agree that the copyright owner above has no warranty, obligations,  
>> or liability for such use.  
>>  
>> Option Explicit  
>>  
>> Dim objRootDSE, strConfig, objConnection, objCommand, strQuery  
>> Dim objRecordSet, objDC  
>> Dim strDNSDomain, objShell, lngBiasKey, lngBias, k, arrstrDCs()  
>> Dim strDN, dtmDate, objDate, lngDate, objList, strUser  
>> Dim strBase, strFilter, strAttributes, lngHigh, lngLow  
>>  
>> ' Use a dictionary object to track latest lastLogon for each user.  
>> Set objList = CreateObject("Scripting.Dictionary")  
>> objList.CompareMode = vbTextCompare  
>>  
>> ' Obtain local Time Zone bias from machine registry.  
>> Set objShell = CreateObject("Wscript.Shell")  
>> lngBiasKey = objShell.RegRead("HKLM\System\CurrentControlSet\Control\"  
>> & "TimeZoneInformation\ActiveTimeBias")  
>> If UCase(TypeName(lngBiasKey)) = "LONG" Then  
>> lngBias = lngBiasKey  
>> ElseIf UCase(TypeName(lngBiasKey)) = "VARIANT()" Then  
>> lngBias = 0  
>> For k = 0 To UBound(lngBiasKey)  
>> lngBias = lngBias + (lngBiasKey(k) * 256^k)  
>> Next  
>> End If  
>>  
>> ' Determine configuration context and DNS domain from RootDSE object.  
>> Set objRootDSE = GetObject("LDAP://RootDSE")  
>> strConfig = objRootDSE.Get("configurationNamingContext")  
>> strDNSDomain = objRootDSE.Get("defaultNamingContext")  
>>  
>> ' Use ADO to search Active Directory for ObjectClass nTDSDSA.  
>> ' This will identify all Domain Controllers.  
>> Set objCommand = CreateObject("ADODB.Command")  
>> Set objConnection = CreateObject("ADODB.Connection")  
>> objConnection.Provider = "ADsDSOObject"  
>> objConnection.Open "Active Directory Provider"  
>> objCommand.ActiveConnection = objConnection  
>>  
>> strBase = "<LDAP:// & strConfig & ">  
>> strFilter = "(objectClass=nTDSDSA)"  
>> strAttributes = "AdsPath"  
>> strQuery = strBase & ":" & strFilter & ":" & strAttributes & ":' subtree"  
>>
```

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```
>> objCommand.CommandText = strQuery
>> objCommand.Properties("Page Size") = 100
>> objCommand.Properties("Timeout") = 60
>> objCommand.Properties("Cache Results") = False
>>
>> Set objRecordSet = objCommand.Execute
>>
>> ' Enumerate parent objects of class nTDSDSA. Save Domain Controller
>> ' AdsPaths in dynamic array arrstrDCs.
>> k = 0
>> Do Until objRecordSet.EOF
>> Set objDC =
>> GetObject(GetObject(objRecordSet.Fields("AdsPath")).Parent)
>> ReDim Preserve arrstrDCs(k)
>> arrstrDCs(k) = objDC.DNSHostName
>> k = k + 1
>> objRecordSet.MoveNext
>> Loop
>>
>> ' Retrieve lastLogon attribute for each user on each Domain Controller.
>> For k = 0 To Ubound(arrstrDCs)
>> strBase = "<LDAP:// & arrstrDCs(k) & "/" & strDNSDomain & ">"
>> strFilter = "(&(objectCategory=person)(objectClass=user))"
>> strAttributes = "distinguishedName,lastLogon"
>> strQuery = strBase & ":" & strFilter & ":" & strAttributes
>> & ":subtree"
>> objCommand.CommandText = strQuery
>> On Error Resume Next
>> Set objRecordSet = objCommand.Execute
>> If Err.Number <> 0 Then
>> On Error GoTo 0
>> Wscript.Echo "Domain Controller not available: " & arrstrDCs(k)
>> Else
>> On Error GoTo 0
>> Do Until objRecordSet.EOF
>> strDN = objRecordSet.Fields("distinguishedName")
>> lngDate = objRecordSet.Fields("lastLogon")
>> On Error Resume Next
>> Set objDate = lngDate
>> If Err.Number <> 0 Then
>> On Error GoTo 0
>> dtmDate = #1/1/1601#
>> Else
>> On Error GoTo 0
>> lngHigh = objDate.HighPart
>> lngLow = objDate.LowPart
>> If lngLow < 0 Then
>> lngHigh = lngHigh + 1
>> End If
>> If (lngHigh = 0) And (lngLow = 0) Then
>> dtmDate = #1/1/1601#
```

```
>> Else
>> dtmDate = #1/1/1601# + (((lngHigh * (2 ^ 32))
>> + lngLow)/600000000 - lngBias)/1440
>> End If
>> End If
>> If objList.Exists(strDN) Then
>> If dtmDate > objList(strDN) Then
>> objList(strDN) = dtmDate
>> End If
>> Else
>> objList.Add strDN, dtmDate
>> End If
>> objRecordSet.MoveNext
>> Loop
>> End If
>> Next
>>
>> ' Output latest lastLogon date for each user.
>> For Each strUser In objList
>> Wscript.Echo strUser & " : " & objList(strUser)
>> Next
>>
>> ' Clean up.
>> objConnection.Close
>> Set objRootDSE = Nothing
>> Set objConnection = Nothing
>> Set objCommand = Nothing
>> Set objRecordSet = Nothing
>> Set objDC = Nothing
>> Set objDate = Nothing
>> Set objList = Nothing
>> Set objShell = Nothing
>>
>
>
>
.
```

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• **References:**

- ◆ **[HELP! Need AD Query for Last login](#)**
  - ◇ [From: LOST](#)
- ◆ **[Re: HELP! Need AD Query for Last login](#)**
  - ◇ [From: Richard Mueller \[MVP\]](#)

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