MICROSOFT

Sample of Net View command

In a GUI world, it's easy to forget that you can still perform some very powerful commands from your server's command prompt. In this Daily Drill Down, Brien Posey shows you one of the most powerful commands—the Net command.

By Brien Posey | February 9, 2001, 12:00 AM PST

If you've read many of my Daily Drill Downs, you've probably noticed that I tend to use the command prompt excessively. Although I've often been ridiculed for using the command prompt in a graphical environment, commands do have their place. One of the biggest uses for commands is in batch files. You can use batch files to automate certain network-related tasks.

Of course, doing so would be very difficult, if not impossible, if you were limited to the basic DOS command set. Fortunately, Windows NT Server and Windows 2000 Server provide an extended set of commands you can use to automate network-related tasks. One such command is the Net command. In this Daily Drill Down, I'll discuss the Net command. I'll also show you what the Net command can be used for and explain the syntax behind its various uses.

What is the Net command?

Before you can understand what the Net command is, you must understand a little bit about the way that networks used to work. In the days of DOS and Windows 3.1 (not Windows for Workgroups), Windows had very little built-in network support. The majority of the network functions had to be performed at the DOS level. A typical process was to load the network redirector through the Autoexec.bat file. Once the redirector was loaded, the user could interact with the network. This is where the Net command came into play. The Net command was basically a single command that could be used to accomplish a wide variety of network-related tasks, such as logging in or mapping a network drive.

Over the years, the Net command has become obsolete for anything other than automation purposes. Almost every task that can be performed through the Net command can also be

accomplished through the Graphical User Interface (GUI). In spite of this fact, the Net command has evolved over the years. Extra functionality has been added to the command, and the Net command is still supported to this day.

Now that you know the history of the Net command and some of its uses, let's examine the command in detail. In the sections that follow, I'll discuss each of the Net command's functions. The Net command is always a two-part command. The Net commands you can issue include the following:

- Net Accounts
- Net Computer
- Net Config
- Net Continue
- Net File
- Net Group
- Net Help
- Net Helpmsg
- Net Localgroup
- Net Name
- Net Pause
- Net Print
- Net Send
- Net Session
- Net Share
- Net Start
- Net Statistics
- Net Stop
- Net Time
- Net Use
- Net User
- Net View

Net Accounts

The Net Accounts command provides a method for displaying the account policies for the domain. You can see a sample of the Net Accounts command here

(http://www.techrepublic.com/utils/sidebar.jhtml?id=t01320010209liz20.htm&index=1).

Z:\USERS\Administrator>net accounts

Force user logoff how long after time expires?: Never

Minimum password age (days): 0

Maximum password age (days): Unlimited

Minimum password length: 0

Length of password history maintained: None

Lockout threshold: Never

Lockout duration (minutes): 30

Lockout observation window (minutes): 30

Computer role: BACKUP

Primary domain controller for workstation domain: \\SCOOBY

The command completed successfully.

Net Computer

The Net Computer command allows you to add a computer account to or remove a computer account from a domain. What's cool about this command is that if you have a list of computer account names, you could write a simple batch file to add or remove those account names. You can see a sample of the Net Computer command's functionality here

(http://www.techrepublic.com/utils/sidebar.jhtml?id=t01320010209liz20.htm&index=2).

Z:\USERS\Administrator>net computer

The syntax of this command is:

NET COMPUTER \\computername {/ADD | /DEL}

Z:\USERS\Administrator>net computer \\homer /add

The request will be processed at the primary domain controller for domain BUD.

Net Config

Many times when I've been working on someone else's computer, I've needed to know the basic settings, such as the computer name, the workgroup name, and the name of the user who's logged in. The Net Config command provides a quick and easy way to acquire this information. In a Windows 98 or Windows Me environment, the Net Config command displays the type of information shown below:

C:\WINDOWS>net config

Computer name \\TAZ

User name ADMINISTRATOR

Workgroup BUD

Workstation root directory C:\WINDOWS

Software version 4.90.3000

Redirector version 4.00

The command was completed successfully.

The Net Config command also works in Windows NT. The main difference is that you have to specify whether you want to display a summary of a server or a workstation. For example, you'd enter *Net Config Workstation*. You'd then see a summary similar to the one given in Windows Me but with slightly more detail.

Net Continue

You use the Net Continue command to restart a service that has been paused by a Net Pause command. The syntax for the command is

C:\Windows>net continue service

where *service* is the name of the service you paused.

Net File

Need to find out who's using files on your server? Just use the Net File command. As you can see here (http://www.techrepublic.com/utils/sidebar.jhtml?id=t01320010209liz20.htm&index=3), the Net File command provides you with a quick summary of which users are attached and how many files they have locked.

Z:\USERS\Administrator>net file

ID Path User name # Locks





Administrator (

lisplay all of the groups that exist within a domain.

nere (http://www.techrepublic.com/utils/sidebar.jhtml?

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id=t01320010209liz20.htm&index=4).

Z:\USERS\Administrator>net group
Group Accounts for \\TITANIUM

·

*Domain Admins *Domain Guests *Domain Users

*Finance *MTS Trusted Impersonators*test group

*ZZZZ

The command completed successfully.

Net Help

The Net Help command gives you detailed information on a Net command. To use it, just type *net help command*, where *command* is the name of the command you want help with.

Net Helpmsg

If Windows 2000 has a problem, it often coughs up confusing error messages and numbers. You can use the Net Helpmsg command to try to find out what the error messages mean. Just type *Net Helpmsg errornumber*, where *errornumber* is the error that Windows 2000 has given you.

Net Localgroup

Just as the Net Group command displays all of the domain's groups, the Net Localgroup command displays a list of the groups that are specific to the local computer. Here's a sample

(http://www.techrepublic.com/utils/sidebar.jhtml?id=t01320010209liz20.htm&index=5) of the Net Localgroup command.

Z:\USERS\Administrator>net localgroup

Aliases for \\TITANIUM

*Account Operators *Administrators *Backup Operators

*Guests *MTS Impersonators *Print Operators

*Replicator *Server Operators *Users

The command completed successfully.

Net Name

You can use the Net Name command to control the name of the server when it sends and receives messages online. If you use the command by itself, you can see the current names configured for your computer. You can add or delete names by using the /ADD and /DELETE switches, respectively.

Net Pause

The Net Pause command pauses services running on your server. It can be useful if you need to pause a service to troubleshoot or make changes to it. To use it, just type *Net Pauseservice*, where *service* is the name of the service you want to pause.

Net Print

I can't count the number of times I've needed to add printing capabilities to a batch file. In older versions of Windows, network printing from a batch file usually meant using the Net Use command to capture a printer port and then printing to the captured port. Unfortunately, this technique can cause confusion for end users the next time they try to print because they may have already been using the printer port that the batch file reassigned. If your users are working in a Windows 98, Me, or NT environment, the Net Print command is a good alternative to traditional batch-file printing. The Net Print command allows you to send print jobs to a network printer without capturing an LPT port. You can see the syntax for the Net Print command here (http://www.techrepublic.com/utils/sidebar.jhtml?id=t01320010209liz20.htm&index=6).

Net Send

The Net Send command can be used to send a pop-up message to network users. Just enter the username and the message. As you can see in this sample

(http://www.techrepublic.com/utils/sidebar.jhtml?id=t01320010209liz20.htm&index=7), the command also offers the capability to send messages to users in another domain.

```
Z:\USERS\Administrator>net send
```

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The syntax of this command is:

NET SEND {name | * | /DOMAIN[:name] | /USERS} message

Z:\USERS\Administrator>net send Administrator This is a test

The message was successfully sent to ADMINISTRATOR.
```

Net Session

The Net command can even be used to see which computers are attached to your computer. Simply enter the Net Session command, and you'll see a summary, similar to this one

(http://www.techrepublic.com/utils/sidebar.jhtml?id=t01320010209liz20.htm&index=8).

Z:\USERS\Administrator>net session

Computer	User name	Client Type	Opens Idle time
		_	
\\TAZMANIA		Windows 2000 21951	01D 10H 46M
\\TITANIUM		Windows NT 1381 0	11D 00H 42M
\\TITANIUM	Administrator	Windows NT 1381 2	00:00:00

Net Share

If you'd like to see which shares exist on a PC, you can do so by using the Net Share command. You can see a sample of this command here

(http://www.techrepublic.com/utils/sidebar.jhtml?id=t01320010209liz20.htm&index=9).

Share name Resource Remark

C\$ C:\ Default share

ADMIN\$ C:\WINNT Remote Admin

REPL\$ C:\WINNT\System32\Repl\Export

IPC\$ Remote IPC

H\$ H:\ Default share

F\$ F:\ Default share

print\$ C:\WINNT\System32\spool\DRIVERS Printer Drivers

dfs F:\dfs

home_server F:\home_server

Microsoft UAM Volume

F:\Microsoft UAM Volume

titanium F:\titanium

USERS H:\USERS

4SIMX LPT1: Spooled Marketing

4SIMX2 LPT1: Spooled Management

4SIMX3 LPT1: Spooled Finance

Net Start

This command starts any of the various services that are running. You can also use the Net Pause or Net Continue command to pause or resume services.

Net Statistics

Perhaps one of the most useful Net commands is Net Statistics. The Net Statistics command provides some hard-core statistics on how a server or workstation is communicating across the network. This command merely requires you to follow the Net Statistics command with the word *Server* or *Workstation*, as shown here (http://www.techrepublic.com/utils/sidebar.jhtml? id=t01320010209liz20.htm&index=10).

Z:\USERS\Administrator>net statistics workstation

Workstation Statistics for \\TITANIUM

Statistics since 12/1/00 6:27 AM

Bytes received			4885909
Server Message Blocks ((SMBs)	received	51520
Bytes transmitted			6101020
Server Message Blocks ((SMBs)	transmitted	51523
Read operations			23
Write operations			1199
Raw reads denied			0
Raw writes denied			0
Network errors			0
Connections made			2433
Reconnections made			1
Server disconnects			6
Sessions started			2824
Hung sessions			0
Failed sessions			0
Failed operations			3
Use count			3212
Failed use count			285

The command completed successfully.

Net Stop

This command is the opposite of Net Start. As you can probably guess, this command stops services from running on your server.

Net Time

One of the commands that I've personally found very useful is the Net Time command. The Net Time command is used to synchronize the time on a workstation with the time on a server. Here's the syntax for the Net Time command:

NET TIME [\computer | /WORKGROUP:wgname] [/SET] [/YES]

- computer—Specifies the name of the computer (time server) whose time you want to check or synchronize your computer's clock with.
- /WORKGROUP—Specifies that you want to use the clock on a computer (time server) in another workgroup.
- wgname—Specifies the name of the workgroup containing a computer whose clock you
 want to check or synchronize your computer's clock with. If there are multiple time servers
 in that workgroup, NET TIME uses the first one it finds.
- /SET—Synchronizes your computer's clock with the clock on the computer or workgroup you specify.
- /YES—Carries out the NET TIME command without first prompting you to provide information or confirm actions.

Net Use

Without a doubt, the most powerful Net command in any version of Windows is the Net Use command. The Net Use command is used to attach to resources such as network shares or printers. For example, to map the Q: drive to a share called Articles on a server called Tazmania, you could enter the following command:

Net Use Q: \\Tazmania\Articles

Likewise, you could map LPT1 to a network printer that's attached to a server called Scooby and shared as HP by entering the following command:

Net Use LPT1: \\Scooby\HP

The Net Use command also provides mechanisms for removing connections that you've made and for entering passwords. Here's a full summary

(http://www.techrepublic.com/utils/sidebar.jhtml?id=t01320010209liz20.htm&index=11) of the Net Use syntax. C:\WINDOWS>net use /?

Connects or disconnects your computer from a shared

resource or displays information about your connections. NET USE [drive: | *] [\\computer\\directory [password | ?]] [/SAVEPW:NO] [/YES] [/NO] NET USE [port:] [\\computer\printer [password | ?]] [/SAVEPW:NO] [/YES] [/NO] NET USE drive: | \\computer\directory /DELETE [/YES] NET USE port: | \\computer\printer /DELETE [/YES] NET USE * /DELETE [/YES] NET USE drive: | * /HOME drive Specifies the drive letter you assign to a shared directory. Specifies the next available drive letter. If used with /DELETE, specifies to disconnect all of your connections. Specifies the parallel (LPT) port name you port assign to a shared printer. computer Specifies the name of the computer sharing the resource. Specifies the name of the shared directory. directory printer Specifies the name of the shared printer. Specifies the password for the shared password resource, if any. ? Specifies that you want to be prompted for the password of the shared resource. You don't need to use this option unless the password is optional. /SAVEPW:NO Specifies that the password you type should not be saved in your password-list file. You need to retype the password the next time you connect to this resource. /YES Carries out the NET USE command without first prompting you to provide information or confirm actions. /DELETE Breaks the specified connection to a shared resource. /NO Carries out the NET USE command, responding with NO automatically when you are prompted to confirm actions.

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/HOME

Makes a connection to your HOME directory if one is specified in your LAN Manager or Windows NT user account.

To list all of your connections, type *NET USE* without options. To see this information one screen at a time, type the following at the command prompt:

NET USE /? | MORE

or

NET HELP USE | MORE

Net User

Another use for the Net command is viewing all of the user accounts that exist on a given machine. To do so, simply enter the Net User command, as shown here

(http://www.techrepublic.com/utils/sidebar.jhtml?id=t01320010209liz20.htm&index=12).

Z:\USERS\Administrator>net user

User accounts for \\TITANIUM

Admin	Administrator	Billy_Brown
Brien	Brien_Posey	Guest
IUSR_SCOOBY	IUSR_TALAINIA	IUSR_TITANIUM
IWAM_SCOOBY	IWAM_TALAINIA	IWAM_TITANIUM
Jeremy_Broyles	Kendall_Hensley	Migrate
Normal	Rep	Shamir
Shamir_Dasgupta	Talainia_Posey	Taz

Test

Net View

This command displays the other computers that are visible on the network. You can see a sample of Net View's output here (http://www.techrepublic.com/utils/sidebar.jhtml?

id=t01320010209liz20.htm&index=13).
Z:\USERS\Administrator>net view
Server Name Remark

\\SCOOBY

\\TALAINIA

\\TAZ BRIEN

\\TAZMANIA

\\TITANIUM

The command completed successfully.

Conclusion

In this Daily Drill Down, I explained how you can use the Net command to automate many common network tasks. As I did, I outlined the syntax used for each type of task.

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EDITOR'S PICKS



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'PayPal Mafia' redefined success in Silicon Valley



How Aaron Levie and his childhood friends built Box



Conflict minerals funded a war that killed millions

