Introduction

Welcome to NS-Batch.   I wrote this program to help me with the administration of a web site belonging to a client of mine.   The log file(s) from the web server included the IP addresses of all machines that accessed the site, but did not include hostnames corresponding to those addresses.   My client wanted the hostnames, and I got tired of manually typing (or even cut'n'pasting) the names from a log file into an NS-Lookup program.   Thus NS-Batch was born.   Since its origination, many people have requested additional features in NS-Batch.   I've tried to add as many as I could (time permitting).

<u>Interactive Processing</u> -   Hostname to IP address / IP address to Hostname.

<u>Batch Processing</u> - IP address to hostname from a file.

<u>Batch Processing</u> - Hostname to IP address from a file.

<u>Probing</u> - How to look around a network.

<u>Output Format Options</u> - How to get the output you want.

<u>Command Line Options</u> - How to run NS-Batch from the command prompt.

<u>Comments</u> - Where to send 'em.

<u>Licensing</u> - How's this thing paid for?

Both 16-bit (for Windows 3.1) and 32-bit (for Windows '95 and Windows NT) are available.   Although the 16-bit version will run under Windows '95, it is not recommended.

The 16-bit version is NS-BATCH.EXE.   The 32-bit version is NSB-32.EXE.   Some features of the 32-bit version are not yet available in the 16-bit version.

Interactive Processing

IP Address to Hostname:

Enter the IP address for which you want a hostname and press the upper "Lookup" button (Alt-L).   If a hostname is available, it will be displayed.

Hostname to IP address:

Enter the hostname for which you want an IP address and press the lower "Lookup" button (Alt-K).   If an IP address can be found, it will be displayed.

Batch Processing (IP Address To Hostname):

Enter the name of an ASCII text file containing numeric IP addresses in dotted-octet notation (i.e., in the form 199.102.3.2), and the name of an output file.   Then click on the "Run" button (Alt-R).   The program will read the input file, searching for IP addresses, and will create an output file containing a separate line for each address in the input file.   The format of the output file will be determined by the options that you select.

Note - If an address appears multiple times in the input file, it will only appear once in the output file.   However, one of the fields in the output format indicates the number of times that the address appeared in the input.

Batch Processing (Hostname to IP Address):

Enter the name of an ASCII text file containing the hostnames for which you want to look up IP addresses, and the name of an output file.   Then click on the "Run" button (Alt-U).   The program will read the input file, searching for any strings containing alpha characters and periods (such as "www.jimprice.com"), and will create an output file containing a separate line for each address in the input file.   The format of the output file will be determined by the <u>options</u> that you select.

Note - If an address appears multiple times in the input file, it will only appear once in the output file.   However, one of the fields in the output format indicates the number of times that the address appeared in the input.

Probing:

You can also use NS-Batch to "probe" for the names of all the machines on a given subnet.   Say for example that you want the names of all computers whose addresses are in the range 199.1.11.1 through 199.1.11.254.   Enter 199.1.11.1 as the the starting address, and enter 199.1.11.254 as the ending address.   Then, enter the name of the file to which you want the results output (default is net.log).   To begin processing click on the "Probe" button (Alt-B).   The program will start probing the DNS, searching for IP addresses that fit the subnet, and will create an output file containing a separate line for each address in the input file.   The format of the output file will be determined by the options that you select.

Note that NS-Batch only does DNS lookups, and does not actually perform a "ping" on each computer reported.

Output Format Options:

The output files for both <u>reverse batch lookup</u>,   <u>forward batch lookup</u>, and <u>probing</u> can be formatted as desired.

Each line in the output file can contain up to five fields, separated by the delimiter of your choice.   The order of the fields can also be adjusted by selections on the Output Options dialog.

- The hexadecimal representation of the binary form of the IP address (makes it easy to sort the file).

- The IP address in dotted-octet notation.

- The hostname corresponding to the IP address, if found (for example, www.onramp.net).

- The hostname in reverse notation (for example, net.onramp.www).

- A status field describing any anomalies that occurred during the lookup.

- The number of times ("count") that the IP address was found in the input file (applies only to batch processing, not to probing).

Also, you may adjust the operation of NS-Batch via the following selections (on the "Output Options" dialog:

- Checking "Verify that results are valid" will cause NS-Batch to perform a forward lookup of the hostname after doing a reverese lookup, or a reverse lookup of the ip address after it does a forward lookup.   For example, if performing batch reverse lookups, if NS-Batch finds that "198.57.35.2" is "machine.domain.com", it will then lookup "machine.domain.com" to verify that "198.57.35.2" is returned.   Or, if performing batch forward lookups, if NS-Batch finds that "machine.domain.com" is "198.57.35.2", it will then lookup "198.57.35.2" to verify that "machine.domain.com" is returned.

- Checking "Include invalid results in output" (which is only applicable if   "Verify that results are valid" is checked) will cause NS-Batch to include in the output all hostnames found, even if the results of the forward lookup don't match (if NS-Batch performing a batch reverse lookup or a network probe).   This option will cause NS-Batch to include all IP addresses in the output (even if the results of the reverse lookup don't match) if NS-Batch is performing a batch forward lookup.

- Checking "Fixed-length IP addresses in output" will cause NS-Batch to output IP addresses (in the dotted octet format) with spaces as needed to ensure alignment of the following field.   That is "192.199.137.183" would be outuput as-is, but "193.43.1.2" would be output with 5 extra spaces as: "193.43.1.2   ".

- Checking "List only those found" will cause NS-Batch to generate output only for those addresses which can be successfully looked up.

Command Line Options

NS-Batch can be operated from the command line if any of the following options are present: */probe*, */revbatch*, or */fwdbatch*.   If any one of these options is present, NS-Batch will perform the desired operation and then exit.   Please note that these three options are mutually exclusive.

Options:

/inifile=*filename.ini* - Load output formatting (for   */probe, /revbatch or /fwdbatch*) from the filename specified.

/probe - Equivalent to pressing the "Probe" button on the main screen.

/probenetmask=*numbits* - Set the subnet mask for probing to *numbits* bits.

/probestartaddr=*netaddr* - Set the start address for probing to *netaddr*.

/probeendaddr=*netaddr* - Set the end address for probing to *netaddr*.

/probenetlog=*filename* - Use *filename* as the output file for probing.

/revbatch - Equivalent to pressing the "Run" button in the "IP Address to Hostname" portion of the main screen.

/revbatchinfile=*filename* - Use *filename* as the input file for the reverse lookup batch operation.

/revbatchoutfile=*filename* - Use *filename* as the output file for reverse lookup batch operation.

/fwdbatch - Equivalent to pressing the "Run" button in the "Hostname to IP Address" portion of the main screen.

/fwdbatchinfile=*filename* - Use *filename* as the input file for the forward lookup batch operation.

/fwdbatchoutfile=*filename* - Use *filename* as the output file for forward lookup batch operation.

Comments, Suggestions, etc.

Comments are more than welcome, and constructive suggestions will be incorporated into future versions of the program.

Please feel free to contact the author via e-mail at:

jim@jimprice.com,

The latest versions of NS-Batch and other products can always be found on the NS-Batch homepage at:

http://www.jimprice.com/jim-soft.htm

To receive information about the latest versions of NS-Batch, you can join the NS-Batch mailing list by sending an e-mail message to:

listserver@jimprice.com

containing the line:

SUBSCRIBE NS-BATCH

Glossary

The following terms may be helpful to NS-Batch users.

DNS - Domain Name Server (or service) - The distributed database service which controls the hostname to IP-address mapping.

Hostname - A name of the form "www.jimprice.com" or "ns.onramp.net", used to refer to a single computer (or router or device) on the Internet.

IP address - The unique (numeric) address of a computer (or router or other device) on the Internet.   For example, the IP address of ns.onramp.net 199.1.11.2.

Other terms will be added to this glossary in the next version of NS-Batch.

Licensing

The author retains ownership of NS-Batch.   However, this version may be freely distributed, as long as it is not modified, and as long as it is accompanied by this notice. If you really like the program, and want to further the development of other programs like NS-Batch, please send a small donation to:

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