

LOG & COPY

Usage and copy limiting utility for Novell Netware

Abstract:

This utility has two functions. First it allows for the logging of programs run on a NOVELL file server for accounting purposes. It creates entries into the SYS\$LOG.MSG file that Novell keeps in SYS:SYSTEM directory. You can select all or some programs to be audited. The second function of LOG© is to limit the number of executions of a software product. This allows a system administrator to purchase a limited number of copies of certain software to be run on the Novell file server.

Programs used:

LOG©.EXE - required by all users. Can be executed many times.
SETCOPY.EXE - Required only by system supervisor. This sets up the correct number of copies available and whether the program execution is logged into a file.
LOG©.DAT - data file created by SETCOPY.EXE.
NET\$LOG.MSG - Data file recording program executions, created by Novell system.

Installation:

Copy the LOG©.EXE file into SYS:PUBLIC or any area that a user will have at least read, open and search (ROS) rights to at login time.

Copy SETCOPY.EXE into an area only a system supervisor can access.

SYS:SYSTEM may be a good area for this. This program sets up the number of copies available and logging options. This program is used only by the system

administrator.

Use:

LOG© - This program is a terminate and stay resident (TSR) program that needs to run on each user station. The program is small (8K) and can be re-run without memory penalty (it does not re-load multiple times.) Each time the program is run, the copy limiting data base is loaded. The program should be run at LOGIN, but can also be run from a menu system or batch programs. For the protection to work, the program MUST be run at least once at login. This program can be run from an AUTOEXEC.BAT file at login or can be run as the EXIT program from the system login script. Users should not be able to break out of the program before LOG© is executed. Here is an example of a system login script:

```
MAP DISPLAY OFF
MAP S1:=FS1/SYS:PUBLIC
MAP INSERT S1:=FED/SYS:SUPUBLIC/BATCH
(other stuff here)
#SPOOL /NB /TIMEOUT=5 /P=0
EXIT LOG&COPY
```

If you exit to a menu program, just make have the first lines of the menu program execute LOG©.EXE. The program is very small, and there is no penalty for multiple executions.

SETCOPY - This program is used by the system administrator for two functions: Set the number of available copies for use and optionally keep a log of program executions. The program creates or modifies a file named LOG©.DAT that is always kept in the SYS:PUBLIC area. This program is menu driven and self-explanatory. The system administrator should read the next section about LOGGING usage data.

Notes about LOGGING usage data.

When using SETCOPY, enter the complete name of the program to copy limit, including the directory name. The LOG© program matched from right to

left the name of the protected program. By including the name of the directory, you will guarantee the correct program is protected. Enter the name of the program like this:

`\PUBLIC\WORDPERF\WP.EXE` or
`\PUBLIC\UTIL\BROWSE.COM`

you may NOT include a Novell volume name. (like SYS:)

The logging of program executions is an accounting function that keeps track of some or all .EXE or .COM that are run. This feature can be turned on or off using the SETCOPY program. The SETCOPY program will ask if a certain piece of software should be logged or not when you create the number of available copies. Also, the SETCOPY program will allow you to set DEFAULT LOGGING on or off. DEFAULT LOGGING is the recording of every .EXE or .COM execution on the system, except programs in the LOG©.DAT file that has logging off.

This can be very useful in watching traffic on your network but remember, THIS CAN BECOME A LOT OF DATA REAL FAST! Data is stored in the system file called NET\$LOG.MSG and is always in the SYS:SYSTEM area. Users do not need any special rights for this function. The system administrator should watch the size of this file and copy it off the network whenever it get too big, or at the end of an accounting period. The format of the NET\$LOG.MSG file is as follows:

Column	Description
-----	-----
1-8	Date in MM/DD/YY format
10-14	Time in HH:MM format
16-22	Logical station number in STN nn: format
25-26	Execution key (@S = start, @E = end, @F = failed execution, %% = exceeded copy limit, execution failed.)
28-80	Program name including full path name

The NET\$LOG.MSG file can be erased at any time. If the file does not exist, the system will create it.

Here is a hint for default logging. When default logging is ON, all .EXE or .COM files are logged, even trivial ones that you may not wish to keep track of. For

these files, simply run SETCOPY, make an entry for the trivial program, and request no logging or copy limit. This will allow all users to use the program without restriction but will not clutter your accounting data set.