

How to use NetWork Processor

NetWork Processor is part of the NetWork Project - a project in distributed computing. It is copyrighted © 1989-1991 Joachim Lindenberg, Karlsruhe, © 1989-1991 Günther Sawitzki, StatLab Heidelberg. The NetWork software and documentation is available by anonymous ftp from statlab.uni-heidelberg.de [129.206.113.100]. Disk copies are available at \$29 from StatLab, Im Neuenheimer Feld 294, W 6900 Heidelberg, Federal Republic of Germany.

System requirements : The Macintosh version of NetWork runs on Macintosh Plus or higher, MacOS 6.03 or better with Multifinder, or System 7.0, or A/UX 2.0.1.

Basic implementation: NetWork can make use of any AppleTalk implementation, but version 48 or higher is recommended for speed. AppleTalk versions 48 or better may be found on the AppleShare Server installation disk or any AppleTalk phase 2 compatible product installation disk (like EtherTalk 2.0) Use of System 7.0 also ensures use of the latest AppleTalk version. Only addresses in the local zone will be used.

Getting started: Move the file NetWork Processor and the folder NetWork Tools into your system folder, and into that of any Macintosh on your AppleTalk network cooperating on NetWork experiments. Restart all Macintoshes which are to cooperate.

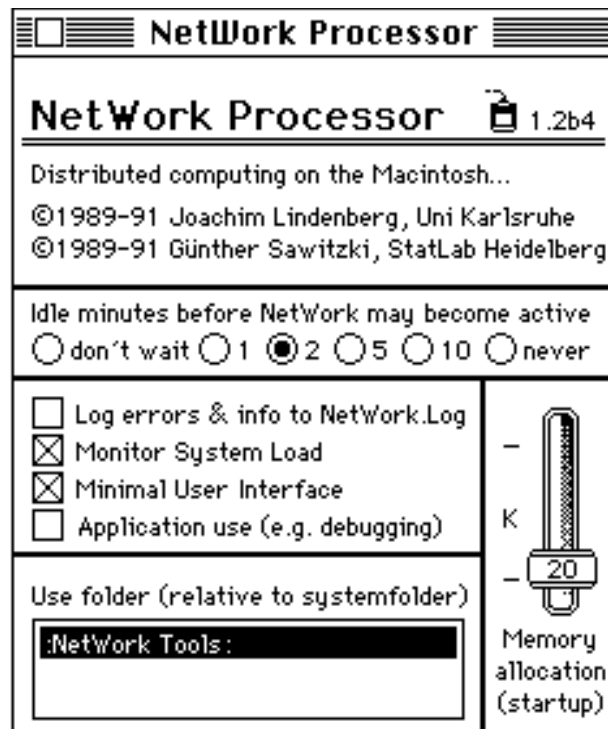
Applications in a folder **NetWork Tools**, if any, may be launched by NetWork if the machine is idle to allow distributed computing. You can change the folder to be searched in the control panel, see below.

Applications in a folder **NetWork Startup Tools**, if any, will be launched by NetWork when the machine is starting up.

Applications in a folder **NetWork Idle Tools**, if any, will be launched by NetWork when the machine state is changing from busy (used) to idle.

Configuring NetWork Processor: NetWork Processor can be controlled by a control panel entry. The items that can be configured are:

- “Idle minutes before NetWork may become active”: The time that must pass after the last user action until this Macintosh is available for NetWork use. Besides delays between 1 and 10 minutes, you can allow concurrent use of your Macintosh (“don’t wait”) – useful during debugging – or turn off remote use of NetWork (“never”). This last option prevents other users from creating processes on your machine.



- “Log errors & info”: If logging is enabled, NetWork Processor will write information to the file “NetWork.Log” in the system folder. This file is not truncated by NetWork Processor and may become huge. You should check the size of the file or delete it regularly. Note that you must turn off logging if you want to delete the file.

If a folder “Network Logs” is found in the system folder, log files with unique names will be created in this folder.

If NetWork Processor encounters a problem related to the log file, it will post a notification to the user, and logging will be turned off automatically.

- “Monitor System Load”: NetWork Processor tries to detect compute intensive background tasks and prevents the machine from being considered idle if it detects any. Unfortunately there are a number of applications (for example ResEdit 2.0, AppleLink 5.1), which use a very small sleep value while in the background, and give the impression of being active, even if no processing is going on. If you are using applications like this a lot, you may want to turn off this feature. NetWork Processor may still be able to detect actual background work because it also monitors file accesses.
- “Minimal User Interface”: This setting can be queried by NetWork applications using the "visible" function. It is recommended that NetWork slave applications do not display windows and the like if the user has turned this check box on. If possible, NetWork Processor launches applications behind all others if “Minimal User Interface” is checked. See NetWork Programmer’s Guide for details.

- “Application use”: A check box which can be queried by applications as “spare flag”, available for experimental use. See NetWork Programmer’s Guide for details.
- “Use folder”: A path to a folder where to search for applications if NetWork is asked to launch a program. The path may be relative to the system folder or can be a full pathname (limited to 255 characters). You can enter a folder on a file server.
- “Memory allocation (startup)”: This control allows the user to configure the message buffer size which is allocated at system startup. Changes of this parameter will take only effect after reboot. For messages sent via AppleTalk, one message amounts to about 1K. The recommendation is to allocate space for 2 messages Å 2K per expected communication partner.

NetWork Processor indicates the state of a machine by showing a small icon in the upper right corner left to the version number in the control panel. The small icons indicate if and why the Macintosh is considered busy, i.e. they indicate the last user action, cursor change, IO or whatever prevented the system from becoming idle most recently. If the icon vanishes, the Macintosh is idle, but no processes have been launched yet.



Mouse movements or clicks



Keyboard input



Disk insertions



Reading or writing of a document



Printing (or communication via the printing port)



Communication via the modem port



Compute intensive application or an application that deliberately blocked the machine (see NetWork Programmer's Guide). If you didn't launch a NetWork application, and this picture is displayed, then you may be using one of the programs that hog the CPU. If you think that no useful work is done, you should turn of the checkbox "Monitor System Load".



Any cursor image – not only the watch – indicates that a change of the cursor's shape was detected.



The Macintosh cannot be used because Multifinder is missing or the system disk has been ejected.



The Macintosh cannot be used, because it is locked by the user ("never" become idle setting)



This picture indicates that (slave) NetWork processes are alive