

**Tropic NFS Server**  
*version 2.0b*

*NFS server  
for Microsoft Windows  
3.x/Win32s/95/NT*

July 7, 1996

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## ***Introduction***

The Network File System (NFS) is a protocol developed by Sun Microsystems that allows different computers to access each other's filesystem as if they were local. Initially designed to work with UNIX systems, it is now available in many other systems including small personal computers like IBM PCs. NFS is logically composed of two pieces: a server program that runs on the machine that is exporting (i.e. making available) its local filesystem and a client program that runs on the machine that mounts (i.e. uses) the other machine's exported filesystem. Tropic NFS server is a NFS server program that runs on Microsoft Windows environment (Windows 3.x, Windows 3.x with Win32s, Windows 95 and Windows NT) and exports the local PC filesystem allowing NFS clients running in other machines to have access to the local PC filesystem.

## ***Features***

The Tropic NFS server offers you the following characteristics:

- Uses Winsock 1.1 API: the program is based on this standard windows socket API. This means that you can use with any Winsock 1.1 compliant TCP/IP stack.
- Selective file export: You may export either a whole disk or any selected sub-directory
- Selective client: you may allow any machine to have access to the local filesystem or you may specify which machines have access to which part of your local disks.
- Read-Only directories: specify read-only users, controlling therefore the access to your filesystems.

## ***Using Tropic NFS server***

To use Tropic NFS server you need to install it and configure it as described in the section that follows. After the installation and configuration is done, you may run the Tropic NFS server in the usual Windows way by clicking in the NFS server program icon. After running the Tropic NFS server program, you may mount the exported directories in the client machines. You need to have the Client program running in the client machine. The Tropic NFS server, as the name suggests, provides only the server program of the NFS. If you are mounting from a unix or unix like machine, the client program is part of the operating system. If your client machine is a DOS/WINDOWS machine, you need a DOS/WINDOWS client program.

## ***Installation and Configuration of Tropic NFS server***

Before Installing Tropic NFS server, make sure you have the minimum hardware and software requirements as described below.

- Hardware Requirements
  - 386 or later IBM PC or compatible computer with 1M of free hard disk space
- Software Requirements
  - DOS 5.1 or later version
  - Windows 3.x, Win32s, Windows 95 or Windows NT
  - Any Winsock 1.1 compliant TCP/IP stack

To install the Tropic NFS server, you must copy all files listed in the Package Contents section to either a temporary directory or a floppy disk. Then, from windows Program Manager menu choose RUN and specify the file "xxx"setup.exe where "xxx" is the directory (or disk letter) where you copied the files. The setup program has further instructions on how to continue with the installation.

To configure Tropic NFS server you must do the following:

- Edit the file named *exports* that resides in the directory where the Tropic NFS server was installed (notice that this directory is not the same as the temporary directory you used to initially copy the files. This is the directory you specified when installing the Tropic NFS server).
- Use each line to specify the exported directories. The syntax is the following:
  - `<filespec> [<client> [<access option>] ... <client> [<access option>]]` where:
    - `<filespec>` : is a fully specified directory including disk drive letter, e.g. `c:\windows`, `e:\export`
    - `<client> [<access option>]` : is a client ip address in dotted notation like `123.5.6.7` or a host name in internet domain format like `amazon.forest.com`. This is optional. Specifying a list of clients limits the access to the directories only to the clients whose ip address matches one of the list. If you do not provide any client address, access is granted to any machine. You may define, for each client, an optional read-only form in the format of a string "(ro)".
- If the line contains the symbol '#', anything that follows is considered a comment

### **Sample configuration session**

Lets consider you want to export (i.e. make available for remote use) the following directories. Also you want some of the directories to have access limited to certain machines:

- the whole disk C with access limited to machine 123.45.67.3
- directory C:\pub with free access
- directory C:\other with access limited to machine 123.45.67.8
- directory E:\pub with free access

The corresponding exports file would contain the following:

```
#this is a full line comment
C:\ 123.45.67.3      #notice that only machine 123.45.67.3 has access to disk C
C:\pub             #any machine may access c:\pub (no specific client specified)
C:\other 123.45.67.8 (ro) #this would be accessed only for reading by machine 123.456.67.8 and
                               123.45.67.3
E:\pub            #free access to directory pub in disk E
```

Notice: at the client side, you must specify a read size and write size of 1024 or less. If you forget to set this two values, the server will refuse to work. The following command will work for a unix (risc/6000) client:

```
mount -o rsize=1024 -o wsize=1024 amazon.forest.com:/c /tmp/mydirectory
```

for a pc client running Tsoft's NFS driver:

```
mount -r 1024 -w 1024 amazon.forest.com:/c auth=none f:
```

## **Package Contents**

(\*) in Windows 3.x version only

(\*\*) in Windows 95/NT and Win32s version only

SETUP.EXE	setup program
SETUP.LS_	setup auxiliary file
TRONFS.INF	setup auxiliary file
MSCOMSTF.DLL	setup stuff
MSCUISTF.DLL	setup stuff
MSDETSTF.DLL	setup stuff
MSINSSTF.DLL	setup stuff
MSUILSTF.DLL	setup stuff
TRONFS.EX_	the main program for Windows 3.x (*)
TRONFS32.EX_	the main program for Windows 95/NT and Win32s (**)
EXPORTS_	the nfs configuration file
BWCC.DL_	Borland C Custom Control DLL for Windows 3.x (*)
BWCC32.DL_	Borland C Custom Control DLL for Windows 95/NT and Win32s (**)
TRONFS.WRI	this file in windows write format
TRONFS.TXT	this file in text format
ORDER.FRM	order form
FILE_ID.DIZ	brief information for BBS sysop

After decompression the following file will be on the directory you had chosen during setup:

TRONFS.EXE	the main program for Windows 3.x (*)
TRONFS32.EXE	the main program for Windows 95/NT and Win32s (**)
EXPORTS	the nfs configuration file
BWCC.DLL	Borland C Custom Control DLL for Windows 3.x (*)
BWCC32.DLL	Borland C Custom Control DLL for Windows 95/NT and Win32s (**)
TRONFS.WRI	this file in windows write format
TRONFS.TXT	this file in text format
ORDER.FRM	order form
FILE_ID.DIZ	brief information for BBS sysop

## **Troubleshooting**

If you find any problem, please contact Tropic software in the following e-mail address:  
e.jucah@ieee.org or tropic@webcit.com.br

Or from our Web page located at:  
<http://www.webcit.com.br/tropic>

This does not imply that support is being offered for you. The mainly purpose of this is for reporting bugs. Anybody whose bug report is found to be pertinent will be notified of the correction. New releases will always be made available either trough our Web page, network repositories (first uploads to Winsite, SimTel and Coast to Coast) or distribution diskettes.

Please feel free to tell us everything you like or dislike about this program in order to let us make it better.

## **Change Log**

- **V1.0**
  - shareware version made publicly available
- **V1.1a**
  - Fixed problem with unix authentication mechanism that didn't allow more than 8 groups.
  - Fixed problem in directory look up
  - Added warning message to display when memory usage is too high.
- **V1.5**
  - Fixed a few reported bugs; specially recursive copy "cp -R" on some systems.
  - Added a new feature that allows export of read-only filesystems.
- **V2.0b**
  - 32 bits version for Windows 95, Windows NT and Win32s in addition to the 16 bits version for Windows 3.x.
  - Long filenames supported on Windows 95 and Windows NT.
  - Fixed bug that made Tropic NFS not to work correctly with some TCP/IP stacks.
  - Optionally enable/disable system and hidden files to be listed in the directories.
  - Fixed bug that reported filesystem sizes wrongly.
  - The shareware version has now a limit of 4 hours of ininterrupted use.

## ***Licensing and Registration***

This software is not free. It is shareware. You are granted the right to test this software for a period of 30 days. After this you have to register the product (see registration conditions later in this document) and, if this applies to you, pay the required registration fee. You may redistribute this program to other persons as long as you keep the package complete with all the files that are listed in the "Package Contents" section in this document.

## ***Registration Fee***

Please see the order.frm file for pricing information. Contact Tropic Software for registration.

Please use one of the following e-mail address:

e.jucah@ieee.org or tropic@webcit.com.br