ND SOFTWARE LIBRARY DISKETTE

Containing :
COSMOS TELNET/FTP Client

Directory Name :
211154B05-XX-01D

User Name : FLOPPY-USER

No	File name	Type	T	Public	Friend	Own	Pages	Bytes
0	FTP-CLIENT-B05	PROG	I	R	R	R	106	372736
1	TELNET-CLIEN-B05	PROG	I	R	R	R	110	387072
2	TERMCAP	TDV	I	R	R	R	3	3559
3	AIP-HOSTS	SYMB	I	R	R	R	7	726
4	AIP-NETWORKS	SYMB	I	R	R	R	2	680
5	AIP-PROTOCOL	SYMB	I	R	R	R	2	785
6	AIP-SERVICES	SYMB	I	R	R	R	3	3350

7   files using 233   pages.   600 pages reserved out of 610 pages.

Product	Name COSMOS TELNET/FTP Client	ND-no. 211154B	Category STPR

Reason	X Change/Addition	
Documen-tation	Title COSMOS TELNET/FTP user guide	ND-no. 60.284.1 EN
Purpose	To allow terminal and file access between an ND-machine and remote systems running TCP/IP over Ethernet. These systems need not run SINTRAN, and could be from other vendors.	

Prerequi-sites	Computer Type Floating format Op. system Version ND-110 Satellite SIN III VSX >=J4000 mod. S5, S9, T9 and T17 ND-100 All SIN III VSX >=J4000 ND-500 All SIN III VSX >=J4000 ND-5000 All SIN III VSX K 406
	ND no Product Name 110063 Ethernet-II controller (1-board version) 211185 COSMOS TCP/IP gateway
	ND-no. Product name 10373K X-MESSAGE
	Minimum mass storage resources for installation User Userspace Number of files 0 pages on 0 files
	Minimum permanent mass storage resources User Userspace Number of files Any User 250 pages on 2 files
	Max/Min number of RT-descriptions: Max 0 Min 0 Max/Min number of segments: Max 0 Min 0 Space requirements on segment file(s) is 0 pages
Product consists of	MODULE-no. Name 211154 COSMOS TELNET/FTP clients	ND-no. for Source 250253B

File Name	Type	Containing
FTP-CLIENT-B<rev>	PROG	FTP client program
TELNET-CLIEN-B<rev>	PROG	TELNET client program
AIP-HOSTS	SYMB	Internet hosts file
AIP-SERVICES	SYMB	Internet services file
AIP-NETWORKS	SYMB	Internet networks file
AIP-PROTOCOL	SYMB	Internet protocols file

NOTE: <rev> and <lang> are to be replaced by the current revision and language of the DIRECTORY or FILE. The revision level and language is found on the preceding "ND SOFTWARE LIBRARY DISKETTE" pages.

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T A B L E   O F   C O N T E N T S

Product	Name COSMOS TELNET/FTP Client	ND-no. 211154B	Category STPR

1 GENERALITIES

1.1 New Features

- TELNET:
  - You now have the possibility to specify the host name after the name of the program:
    Example:
    @TELNET-CLIEN-B<rev> computerName
    and you are directly connected to the host named computerName.

  - the ESCAPE command allows a user to change the ESCAPE character. If you want to change it to another control character, type the character ^ and then the actual letter.
    Example:
    telnet> escape↲
    new escape character: ^Q
    Escape character is: "^Q"
    telnet>
        which means "<ctrl>+Q"

  - by typing this ESCAPE character during a session in TELNET CLIENT, you will go to the command mode. Type CR (carriage return) twice to return to your actual session.

  - automatic disconnect when logging out.

- FTP:
  - You are allowed to use FTP-CLIENT through a TELNET connection.

  - You now have the possibility to specify the host name after the name of the program:
    Example:
    @FTP-CLIEN-B<rev> computerName
    and you are directly connected to the host named computerName.

  - DELETE <file name> :Deletes the specified file at the server site.

  - LS <file name>, MPUT <file name>, MDELETE <file name>, MGET <file name> : the file name specified can contain wildcard characters. The matching syntax uses both SINTRAN and UNIX abbreviation syntax.

  - Sintran error messages are displayed when a Sintran error occurs.

1.2 Corrected Errors

- IN TELNET
  - The "$" prompt is displayed.
  - the "#" character is displayed.
  - the "Go-To" key in notis-wp works.
  - the UE log-in picture is displayed correctly.

- IN FTP
  - in FTP-client, if logging on to a user which has no space in default directory, the corresponding error message is displayed.

  - FTP does not hang when transferring empty files.

1.3 Restrictions

- The FTP server is not able to handle larger files than 16 megabytes.

Warning   Some file systems may have only <cr> as end-of-line. The SINTRAN file system has <cr><lf> as end-of-line in symbolic files. It may therefore occur differences in filesizes on transfering files between SINTRAN and some UNIX systems.

1.4 Know errors

In some special cases, the Telnet connection is not been released on the server site. This error is corrected in SINTRAN work mode 500.

2 HOW TO CHECK PREREQUISITES

2.1 User Space

To install TELNET-CLIENT and FTP-CLIENT software, you might create a special user or use an already existing user (example: UTILITY). This user needs 250 pages.

By using the command @USER-STATISTICS check that you have sufficient free pages on the disk before installing the software.

2.2 Computer Type and Patch File

The computer type and operating system version is checked by the SINTRAN command @LIST-TITLE.

Example

@LIST-TITLE

```
  SINTRAN III - VSX/500 K MYCOMPUTER
  STANDARD CONFIGURATION:       C
  BETA TEST (WORK MODE NO.):       312B
  REVISION (PATCH FILE NO.):  105000B
  CPU TYPE:      100
  CPU NUMBER:    6666
  GENERATED:    13.14.00      15 SEPTEMBER    1987
@
```

You should have the patch file number 5000.

2.3 TCP/IP Software

The presence of the COSMOS TCP/IP software is necessary to run the FTP-CLIENT and TELNET-CLIENT.

Check it by doing the LIST-NAMES command in the XMSG-COMMAND processor. If installed, the TCP/IP port names are present.

If you have the TCP/IP running on a machine other than where the FTP and TELNET clients will run, (or COSMOS file-access will be used), the COSMOS Basic module (10374) has to be installed.

Example with TCP/IP on the local computer

```
@XMSG-COMMAND


XMSG command program (210373K) of 86.04.03 16:09
Compiled for version 1986.04.03 (Release K)
XMSG kernel version 1986.04.03 (Release K)
Options:
    ND-100/CX only. XPIT. Trace.
    Inter-system:  Network gateway.
    (Type ? to get a list of the new commands.)

X-C(Adv):list-names↵
XROUT system? ↵
System    Port  Free SPs     Name
  7777     0                 YOURCOMPUTER
  6666     0                 MYCOMPUTER
  6666     2                 *TADADM.
  6666     3      1          *XFTRA.
  6666     4      2          *FA-FSA.
  6666     0                 *TCP.        => TCP port name

X-C(Adv):ex↵

@
```

Example with TCP/IP on a remote computer

```
@XMSG-COMMAND


XMSG command program (210373K) of 86.04.03 16:09
Compiled for version 1986.04.03 (Release K)
XMSG kernel version 1986.04.03 (Release K)
Options:
    ND-100/CX only. XPIT. Trace.
    Inter-system:  Network gateway.
    (Type ? to get a list of the new commands.)

X-C(Adv):list-names↵
XROUT system? ↵
System    Port  Free SPs     Name
  7777     0                 YOURCOMPUTER
  6666     0                 MYCOMPUTER
  6666     2                 *TADADM.
  6666     3      1          *XFTRA.
  6666     4      2          *FA-FSA.
  7777     0                 *TCPGATE     => TCP port name for remote
                                             clients.

X-C(Adv):ex↵

@
```

3 REMOVING TCP/IP VERSION A

If the A version is installed, remove it before installing the B version by performing the following commands:

```
@DELETE-REENTRANT TELNET-CLIENT
@DELETE-REENTRANT FTP-CLIENT
@DELETE-FILE (<UserName>)TELNET-CLIEN-A<rev>:prog
@DELETE-FILE (<UserName>)FTP-CLIENT-A<rev>:prog
```

rename the following file:

```
@RENAME-FILE AIP-HOSTS-A<rev>:SYMB AIP-HOSTS:SYMB
```

and delete these files :

```
@DELETE-FILE AIP-SERVICES-A<rev>:SYMB
@DELETE-FILE AIP-NETWORKS-A<rev>:SYMB
@DELETE-FILE AIP-PROTOCOL-A<rev>:SYMB
```

4 INSTALLATION

Insert the floppy and enter directory:

```
@ENTER-DIRECTORY 211154B<rev>-<lang>-01D
```

Copy the files FTP-CLIENT-B<rev>:PROG and TELNET-CLIEN-B<rev>:PROG to user of your choice with public read access, and dump them reentrant:

```
@DUMP-PROGRAM-REENTRANT TELNET-CLIEN-B<rev>
     (<USERNAME>)TELNET-CLIEN-B<rev>:PROG
@DUMP-PROGRAM-REENTRANT FTP-CLIENT-B<rev>
     (<USERNAME>)FTP-CLIENT-B<rev>:PROG
```

If TCP/IP is on a remote computer, please copy the files:

- AIP-HOSTS:SYMB
- AIP-SERVICES:SYMB
- AIP-NETWORKS:SYMB
- AIP-PROTOCOL:SYMB

to user SYSTEM with public read access.

Add your own internet-address to the AIP-HOSTS:SYMB file using a 7-bit editor.

5 STARTUP

Run the programs:

```
@TELNET-CLIEN-B<rev>↵
@FTP-CLIENT-B<rev>↵
```

6 USING UNIX SCREEN ORIENTED APPLICATION

In order to use screen based applications such as VI on a UNIX system, the UNIX system must be configured for the terminal capabilities of the Tandberg Terminals and/or OWS terminal emulator.

The system manager of the UNIX machine must insert the following lines, describing the emulators functionality, into the file /etc/termcap on BSD systems or /etc/terminfo on System V machines.

This can be done this way:

>>>>>>>> Installation on BSD systems (eg. SUN) <<<<<<<<

1) Transfer the file "termcap:tdv" from the floppy to "term.tdv" in your home directory (eg. /usr/admin) by using FTP,

2) Change directory to /etc and run:
   'cp termcap termcap.old'
   to make sure you have a backup copy of the original file.

3) Go back to your home directory and type:
   'cat term.tdv >> /etc/termcap'
   to add the new definitions in the file "termcap". The installation for the system is now complete.

4) If the user is using Tandberg terminals:
   - For each user that is going to use the Tandberg terminal towards the host, enter
     'set term=nd246' or
     'set term=nd1200' or
     'set term=nd320'
     according to the Tandberg terminal type, in ~/.profile (~ means home directory eg. /usr/epa for user epa) if they are using the C shell(/bin/csh).
     If they are using Bourne shell (/bin/sh), enter (note the capital letters) in the .profile.
     'TERM=nd246' or
     'TERM=nd1200' or
     'TERM=nd320'

5) If the user is using OWS terminal emulator:
   - For each user that is going to use the OWS terminal emulator towards the host, enter
     'set term=tdv2200'
     in ~/.profile (~ means home directory eg. /usr/epa for user epa) if they are using the C shell(/bin/csh).
     If they are using Bourne shell (/bin/sh), enter
     'TERM=tdv2200' (note the capital letters)
     in the .profile.

6) Users that will also use other terminals (like the VT 100), they can switch terminal type after having logged in with the commands:
   - unsetenv termcap
   - set term=tdv1200 # beware that no spaces should be inserted before 'nd246'.
   - printenv   # check the setting

For the Tandberg terminals, you have to change the Configuration Menu:

- Type twice "CTRL+HELP" to enter the configuration menu,

- Enter the "Function Switches Menu" and type "ENTER",

- To accept escape sequences, the field "Extended Control Mode" field should be "ON",

- Type the "ESC" key to exit the menu,
  type "ENTER" to make the switches permanent,
  type "ESC" to exit the configuration menu.