

## *NOTES ON THE CORNELL MACINTOSH TN3270/.TN3270DRV/HYPERCARD INTERFACE*

Kevin Eric Saunders, [cqu@cornellc](mailto:cqu@cornellc), Network Systems Services, Cornell Information Technologies.  
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A new version of Cornell Macintosh TN3270 (1.3D1) is available along with a Macintosh driver which allows another Macintosh application running under MultiFinder to communicate with TN3270. A HyperCard stack is provided which uses the driver to connect with a host, check the state of TN3270, send data and commands, and put the screen into a HyperCard global.

This is a development version of this software, and both the HyperCard Interface and the driver interface are subject to change. Note that TN3270 must be launched before making calls.

### ***HyperCard global fields:***

TNID: Driver ID for XCMDs to use in subsequent calls.  
TNscreen: A HyperCard global which is set to point to the TN3270 screen array in memory.  
TNcursor: A HyperCard global which is set to point to the TN3270 cursor pointer in memory.  
TNfield: A HyperCard global which is set to point to the TN3270 current field pointer in memory.

### ***HyperCard XCMD calls:***

#### **Common Error Results placed in "the result":**

"Out of memory"  
"TN is not running"  
"TN not opened"  
"TNID is incorrect"  
"TN has no connection"  
"Can't set (interface global name)"  
"Unknown error"

**TNOpen "TNID" "TNscreen" "TNcursor" "TNfield":** Open the TN3270 Driver.

TNID: The quoted name of a global which will be set to the driver number.  
TNscreen: The quoted name of a global which will be set to the address of the TN3270 screen (an array of 1920 characters).  
TNcursor: The quoted name of a global which will be set to the address of the TN3270 cursor pointer (-> location of cursor in the TNscreen array).  
TNfield: The quoted name of a global which will be set to the address of the TN3270 current attribute pointer (-> the beginning of the current field in the TNscreen array).  
the result is empty implies success;  
"TN already open"  
"Can't open .TNdrv"

**TNConnect TNID hostname:** Open a 3270 Telnet session.

hostname: The name of a host to look up in the TN3270 host table or a dot-notation Internet address.  
the result is empty implies no immediate error;  
"TN already has a connection"  
"Name not in host table"  
"Invalid Internet Address"

**TNStatus TNID:** Get the status of the 3270 Telnet session; the "New Data" condition is reset after the call.

the result is empty implies no new data;  
"TN waiting for connection"  
"TN waiting on network"  
"New Data"  
"More..."  
"HOLDING"  
"Keyboard locked"  
"TNID is incorrect"

**TNClose TNID:** Close the current session.

the result is empty implies success.

**TNSendString TNID thestring:** Put a string into the 3270 screen at the cursor location.

thestring: The string.

the result is empty implies success.

**TNReceive TNscreen "aglobal":** Copies the contents of the TN3270 screen into a Hypercard global.

aglobal: A quoted HyperCard global name into which TN3270 will copy the screen.

the result is empty implies success.

**TNSendCmd TNID class entry:** Execute a TN3270 command.

class: A character which indicates to TN3270 how to interpret the commandentry; the classes are:

' ' is an ASCII character.

'A' is a local action key.

'P' is a program function key.

'M' is a cursor movement key.

'X' is a cursor movement to a horizontal x location.

'Y' is a cursor movement to a vertical y location.

entry: A character or string which completes a command.

the result is empty implies success;

"Invalid Command Class"

"Invalid Command Entry"

#### **List of Command Entries for TNSendCmd:**

*ASCII character class ' ':*

simply use ASCII characters.

*Local action class 'A':*

INSRT "I" (capital i)

DEL\_CHAR "D"

ERASE\_EOF "E"

INPUT\_ERASE "X"

BACKSP\_DEL "B"

RESET "R"

*Program function keys class 'P':*

PF1 "1"

PF2 "2"

PF3 "3"

... "

PF34 "34"

PF35 "35"

PF36 "36"

PA1 "a"

PA2 "b"

PA3 "c"

CLEAR "C"

ENTER "E"

*Cursor movement class 'M':*

LEFT\_ARROW "L"

DOWN\_ARROW "D"

UP\_ARROW "U"

RIGHT\_ARROW "R"

HOME "0" (zero)

TAB\_FWD ">"

BACK\_TAB "<"

NEW\_LINE "N"

*Move cursor to the beginning of line Y class 'Y':*

use a numeric string to designate the desired y location from "0".

*Move cursor to X location class 'X':*

use a numeric string to designate the desired x location from "0".

NB: When moving the cursor to a specific X,Y location, move to the beginning of line Y first, then move to the X location.