

# TN3270 Keymap Examples

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## Introduction

The TN3270 Example File is for use with the TN3270 on the Cisco terminal server.

If you have requests for additions, contact [tac@cisco.com](mailto:tac@cisco.com).

## Prerequisites

### Requirements

There are no specific requirements for this document.

### Components Used

This document is not restricted to specific software and hardware versions.

### Conventions

Refer to Cisco Technical Tips Conventions for more information on document conventions.

## Examples

This is an example of a ttycap for a Televideo 925. It is taken from a standard ttycap from BSD Unix.

```
ttycap televideo \  
v8|vi|tvi925|925|televideo model 925:\  
      :hs:am:bs:co#80:li#24:cm=\E=%+ %+ :cl=\E*:cd=\Ey:ce=\Et:\  
  
:al=\EE:dl=\ER:im=:ei=:ic=\EQ:dc=\EW:mr=\EG4:mk=\EG1:md=\EG4:me=\EG0:\  
:ho=^^:nd=^L:bt=\EI:pt:so=\EG4:se=\EG0:sg#1:us=\EG8:ue=\EG0:ug#1:\  
:up=^K:do=^V:kb=^H:ku=^K:kd=^V:kl=^H:kr=^L:kh=^^:ma=^V^J^L :\  
:k1=^A\r:k2=^AA\r:k3=^AB\r:k4=^AC\r:k5=^AD\r:k6=^AE\r:k7=^AF\r:\  
:k8=^AG\r:k9=^AH\r:k0=^AI\r:ko=ic,dc,al,dl,c1,ce,cd,bt:\  
:ts=\Ef:fs=\Eg:ds=\Eh:sr=\Ej:xn:ti=\EG0:to=\EG0:\  
:is=\E1\E" ^M\E3^M      \E1      \E1      \E1      \E1      \E1  
\E1      \E1      \E1      \E1      \E1^M
```

This is an example of a Keymap for a 925 that was borrowed from a MAP3270 of the BSD TN3270.

```
keymap televideo \  
      :hs:am:bs:co#80:li#24:cm=\E=%+ %+ :cl=\E*:cd=\Ey:ce=\Et:\
```



This is an example entry for a VAX Terminal that was borrowed from a MAP3270 of Columbia TN3270. Use the Application Keypad and the application cursor keys. The VT320 ttypcap will automatically set up this mode on logon. The numeric keypad is PFK1-9. PF1 adds ten to the PF keys. Escape adds twenty (PF1 + numeric 0 = PFK10; ESC plus numeric 4 = PFK24). ENTER is Clear. PA keys are given by ESC + PFn. CTRL-SPACE or ESC-SPACE is insert mode. Arrow keys are as advertised. "." on numeric keypad is home. TAB is tab, CTRL-B is back tab. DEL is newline. All other codes should be self-explanatory. Feel free to modify and experiment. Suggested modifications include using the normal cursor keys for cursor keys, or using the extensive VT2xx and VT 3xx key sets. Coltab, colbak, indent, and udent are created from using the compose key in conjunction with the arrow keys.

```

!
keymap vaxterminal \
vt100av|vt100|vt100nam|pt100|vt102|vt125{ \
  enter = '^m'; \
  clear = '^z' | '\EOM'; \
  nl = '^?'; \
  tab = '^i'; \
  btab = '^b'; \
  left = '^h' | '\EOD' | '\E[D' ; \
  right = '^l' | '\EOC' | '\E[C' ; \
  up = '^k' | '\EOA' | '\E[A' ; \
  down = '^j' | '\EOB' | '\E[B' ; \
  home = '\EOn'; \
  delete = '^d'; \
  eof = '^e' ; \
  einp = '^w'; \
  insrt = '^ ' | '\E ' ; \
  pfk1 = '\EOq' | '\E1'; pfk2 = '\EOr' | '\E2'; pfk3 = '\EOs' | '\E3'; \
  pfk4 = '\EOt' | '\E4'; pfk5 = '\EOu' | '\E5'; pfk6 = '\EOv' | '\E6'; \
  pfk7 = '\EOw' | '\E7'; pfk8 = '\EOx' | '\E8'; pfk9 = '\EOy' | '\E9'; \
  pfk10 = '\EOP\EOp' | '\EO'; pfk11 = '\EOP\EOq' | '\E-'; \
  pfk12 = '\EOP\EOr' | '\E='; pfk13 = '\EOP\EOs' | '^f13'; \
  pfk14 = '\EOP\EOt' | '^f14'; pfk15 = '\EOP\EOu' | '^f15'; \
  pfk16 = '\EOP\EOv' | '^f16'; pfk17 = '\EOP\EOw' | '^f17'; \
  pfk18 = '\EOP\EOx' | '^f18'; pfk19 = '\EOP\EOy' | '^f19'; \
  pfk20 = '\EOQ\EOp' | '^f20'; pfk21 = '\EOQ\EOq' | '^f21'; \
  pa1 = '\E\EOP' | '^p1'; \
  pa2 = '\E\EOQ' | '^p2'; \
  pa3 = '\E\EOR' | '^p3'; \
  centsign = '^x'; \
  reset = '^t'; \
  master_reset = '^g'; \
  flinp = '^x'; \
  reshow = '^r'; \
  settab = '\E'; \
  deltab = '\E\'; \
  clrtab = '\E:'; \
  setmrg = '\E,'; \
  sethom = '\E.'; \
  coltab = '\E\E[B'; \
  colbak = '\E\E[A'; \
  indent = '\E\E[C'; \
  udent = '\E\E[D'; \
}
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!

```

This is a Keymap to make TN3270 behave like an Async Connection to an IBM 7171. Refer to the IBM 7171 keyboard maps for more information.

```

!
keymap ibm7171 \
vt100av|vt100|vt100nam|pt100|vt102|vt125{ \
  enter = '^m'; \

```

```

erase = '^?'; reset = '^g'; clear = '^z' | '\EOM';\
nl = '^j'; tab = '^i'; btab = '^b';\
left = '\EOD'; right = '\EOC'; up = '\EOA'; down = '\EOB';\
home = '^h'; delete = '^d'; eof = '^e' | '\E^?'; einp = '^w'; insrt =
'\Eon';\
pfk1 = '\EOP' | '\E1'; pfk2 = '\EOQ' | '\E2'; pfk3 = '\EOR' | '\E3';\
pfk4 = '\EOW' | '\E4'; pfk5 = '\EOx' | '\E5'; pfk6 = '\EOy' | '\E6';\
pfk7 = '\Eot' | '\E7'; pfk8 = '\EOu' | '\E8'; pfk9 = '\EOv' | '\E9';\
pfk10 = '\EOq' | '\E0'; pfk11 = '\EOr' | '\E-';\
pfk12 = '\EOs' | '\E='; pfk13 = '\EOp\EOP' | '^f13';\
pfk14 = '\EOp\EOQ' | '^f14'; pfk15 = '\EOp\EOR' | '^f15';\
pfk16 = '\EOp\EOW' | '^f16'; pfk17 = '\EOp\EOx' | '^f17';\
pfk18 = '\EOp\EOy' | '^f18'; pfk19 = '\EOp\Eot' | '^f19';\
pfk20 = '\EOp\EOu' | '^f20'; pfk21 = '\EOp\EOv' | '^f21';\
pfk22 = '\EOp\EOq' | '^f22'; pfk23 = '\EOp\EOr' | '^f23';\
pfk24 = '\EOp\EOs' | '^f24';\
pa1 = '^p1' | '\EOS';\
pa2 = '^p2' | '\EOM';\
pa3 = '^p3' | '\EOL';\
}
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!

```

This is an example of an NCD X terminal.

```

keymap ncd \
xterm|ncd16{\
  enter = '^m';\
  clear = '^z';\
  nl = '^n' | '^^\';\
  tab = '^i';\
  btab = '^b';\
  left = '^h';\
  right = '^l';\
  up = '^k';\
  down = '^j';\
  home = '^@';\
  delete = '^d' | '^?';\
  eof = '^e';\
  einp = '^w';\
  insrt = '\E '; \
  dp = '^u';\
  fm = '^y';\
  pfk1 = '\E[11~'; pfk2 = '\E[12~'; pfk3 = '\E[13~'; pfk4 = '\E[14~';\
  pfk5 = '\E[15~'; pfk6 = '\E[17~'; pfk7 = '\E[18~'; pfk8 = '\E[19~';\
  pfk9 = '\E[20~'; pfk10 = '\E[21~'; pfk11 = '\E1';\
  pfk12 = '\E2';\
  pfk13 = '\E3'; pfk14 = '\E4'; pfk15 = '\E5';\
  pfk16 = '\E6';\
  pfk17 = '\E7'; pfk18 = '\E8'; pfk19 = '\E9';\
  pfk20 = '\E0';\
  pfk21 = '\E-'; pfk22 = '\E='; pfk23 = '\E\`'; pfk24 = '\Eq';\
  pa1 = '\EOP';\
  pa2 = '\EOQ';\
  pa3 = '\EOR';\
  cursel = '\E.';\
  reset = '^t';\
  master_reset = '^g';\
  flinp = '^x';\
  reshov = '^v';\
  escape = '^c';\
  settab = '\E';\
  clrtab = '\E+';\
  setmrg = '\E('; \
  sethom = '\E!';\
  coltab = '\Ei';\
  colbak = '\Eb';\
}

```

```

        indent = '\E1';\
        undent = '\Eh';\
    }
    !!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!

```

This is an IBM 3151 ttycap that has been modified from an example ttycaps.

```

ttycap ibm3151term \
I0|ibm3151|i3151|3151|ibm-3151:\
    :so=\E4A:us=\E4B:md=\E4H:\
    :ue=\E4@:me=\E4@:se=\E4@:\
    :ts=\E=:fs=\E=:ds=\E=\E=: \
    :cr=^M:nl=^J:bl=^G:\
    :is=\E 1^M          \E0          \E0          \E0          \E0          \E0
\E0          \E0          \E0          \E0:\
    :ta=^I:bt=\E2:\
    :li#24:co#80:al=\EN:mb=\E4D:mr=\E4H:\
    :am:bw:bs:cl=\EK:im=:ei=:cm=\EY%+ %+ :\
    :nd=\EC:up=\EA:le=\ED:do=\EB:cd=\EJ:ce=\EI:\
    :ho=\EH:d1=\EO:ic=\EP^H:dc=\EQ:sf=\E M:sr=\E!M:
!

```

The following IBM 3151 Keymap was prepared for Howard Univeristy.

```

!
keymap ibm3151 \
I0|ibm3151|i3151|3151|ibm-3151{\
    enter = '\E8^m'; clear = '\EL^m'; nl = '^m'; tab = '^i'; btabs = '^b';\
    left = '\ED'; right = '\EC'; up = '\EA'; down = '\EB';\
    home = '\EH'; delete = '\EQ'; erase = '^h'; eof = '\EI'; einp =
'\EK';\
    insrt = '\E^?'; dp = '^d'; fm = '^f';\
    pfk1 = '\Ea'; pfk2 = '\Eb'; pfk3 = '\Ec'; pfk4 = '\Ed';\
    pfk5 = '\Ee'; pfk6 = '\Ef'; pfk7 = '\Eg'; pfk8 = '\Eh';\
    pfk9 = '\Ei'; pfk10 = '\Ej'; pfk11 = '\Ek'; pfk12 = '\El';\
    pfk13 = '\E!a'; pfk14 = '\E!b'; pfk15 = '\E!c'; pfk16 = '\E!d';\
    pfk17 = '\E!e'; pfk18 = '\E!f'; pfk19 = '\E!g'; pfk20 = '\E!h';\
    pfk21 = '\E!i'; pfk22 = '\E!j'; pfk23 = '\E!k'; pfk24 = '\E!l';\
    pa1 = '\E!m'; pa2 = '\E!n'; pa3 = '\E!o';\
    cursel = '^k'; reset = '^r'; master_reset = '^c'; treq = '^t';\
}
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
!

```

These are VT320 in VT320 mode keymaps. The ttycap assures that the terminal is in the right mode. The Keymap recognizes the dec escape sequences.

```

!
ttycap mvshost \
vt320|vt420:\
    :do=^J:\
    :co#80:\
    :li#24:\
    :ho=\E[H:\
    :sf=5\E[ED:\
    :le=^H:\
    :bs:\
    :am:\
    :cl=50\E[;H\E[2J:\
    :cm=2\E[%i%d;%dH:\
    :nd=2\E[C:\
    :up=2\E[A:\
    :ce=3\E[K:\
    :cd=50\E[J:\
    :cs=\E[%i%d;%dr:\

```

```

:so=2\E[7m:\
:se=2\E[m:\
:us=2\E[4m:\
:ue=2\E[m:\
:md=2\E[1m:\
:mr=2\E[7m:\
:mb=2\E[5m:\
:me=2\E[m:\
:is=\E[1;24r\E[24;1H:\
:rs=\E>\E[?31\E[?41\E[?51\E[?7h\E[?8h:\
:te=\E>\nterminal has been reset:\
:ti=\E[63;1"p\E=\E[?1lterminal being setup...:\
:ks=\E[?1h\E=:\
:ke=\E[?1l\E>:\
:ku=\EOA:\
:kd=\EOB:\
:kr=\EOC:\
:kl=\EOD:\
:kb=^H:\
:k1=\EOP:\
:k2=\EOQ:\
:k3=\EOR:\
:k4=\EOS:\
:pt:\
:sr=5\EM:\
:vt#3:\
:xn:\
:sc=\E7:\
:rc=\E8:

```

!

This is the Keymap for the DEC VT320 in VT320 mode.

```

!
keymap decvt300 \
vt320|vt420{ \
  enter = '\EOM'; \
  clear = '\EOS'; \
  nl = '\r'; \
  tab = '^i'; \
  btabs = '\E[26~'; \
  left = '\E[D'; \
  right = '\E[C'; \
  up = '\E[A'; \
  down = '\E[B'; \
  home = '\EOn'; \
  delete = '^?'; \
  eof = '^e'; \
  einp = '^w'; \
  insrt = '\E[2~'; \
  pfk1 = '\EOq'; \
  pfk2 = '\EOr'; \
  pfk3 = '\EOs'; \
  pfk4 = '\EOt'; \
  pfk5 = '\EOu'; \
  pfk6 = '\EOv'; \
  pfk7 = '\EOw'; \
  pfk8 = '\EOx'; \
  pfk9 = '\EOy'; \
  pfk10 = '\EOp'; \
  pfk11 = '\Eom'; \
  pfk12 = '\Eol'; \
  pa1 = '\EOP'; \
  pa2 = '\EOQ'; \
  pa3 = '\EOR'; \
  centsign = '^x'; \

```

```

reset = '\E[3~'; \
master_reset = '^g'; \
flinp = '^x'; \
reshow = '^r'; \
settab = '\E'; \
deltab = '\E\'; \
clrtab = '\E: '; \
setmrg = '\E, '; \
sethom = '\E.'; \
coltab = '\E\E[B'; \
colbak = '\E\E[A'; \
indent = '\E\E[C'; \
undent = '\E\E[D'; \
}
!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
!
```

This is an IBM 3101 Keymaps/ttymax.

```

!
ttymax ibm3101term \
ibm3101|3101|ibm31alt|31alt|ibm3101alt:\
:ts=\E::fs=\E=:ds=\E=\E=\
:cr=^M:nl=^J:bl=^G:\
:is=\E 1^M          \E0          \E0          \E0          \E0          \E0
\E0          \E0          \E0          \E0^M:\
:ta=^I:bt=\E2:\
:li#24:co#80:al=\EN:mb=\E4D:mr=\E4H:\
:am:bw:bs:cl=\EK:im=:ei=:cm=\EY%+ %+ :\
:nd=\EC:up=\EA:le=\ED:do=\EB:cd=\EJ:ce=\EI:\
:ho=\EH:dl=\EO:ic=\EP^H:dc=\EQ:sf=\E M:sr=\E!M:
!
! ibm31alt makes Delete = 0x7F
!
keymap ibm31alt \
ibm31alt|ibm3101alt|31alt{\
  enter = '^m';\
  clear = '\EL';\
  nl = '^h';\
  tab = '^i';\
  btabs = '\E^i' | '\EJ^i';\
  left = '\ED';\
  right = '\EC';\
  up = '\EA';\
  down = '\EB';\
  home = '\EH';\
  delete = ' '; \
  eof = '\EI';\
  einp = '\EK';\
  insrt = '\E ' | '\EJ ';\
  dp = '^d';\
  fm = '^f';\
  pfk1 = '\E1' | '\EJ1';\
  pfk2 = '\E2' | '\EJ2';\
  pfk3 = '\E3' | '\EJ3';\
  pfk4 = '\E4' | '\EJ4';\
  pfk5 = '\E5' | '\EJ5';\
  pfk6 = '\E6' | '\EJ6';\
  pfk7 = '\E7' | '\EJ7';\
  pfk8 = '\E8' | '\EJ8';\
  pfk9 = '\E9' | '\EJ9';\
  pfk10 = '\E0' | '\EJ0';\
  pfk11 = '\E-' | '\EJ-';\
  pfk12 = '\E=' | '\EJ=';\
  pfk13 = '\E!' | '\EJ!';\
  pfk14 = '\E@' | '\EJ@';\

```

```

    pfk15 = '\E#' | '\EJ#';\
    pfk16 = '\E$' | '\EJ$';\
    pfk17 = '\E%' | '\EJ%';\
    pfk18 = '\E^^' | '\EJ^^';\
    pfk19 = '\E&' | '\EJ&';\
    pfk20 = '\E*' | '\EJ*';\
    pfk21 = '\E(' | '\EJ('; \
    pfk22 = '\E)' | '\EJ)';\
    pfk23 = '\E_' | '\EJ_';\
    pfk24 = '\E+' | '\EJ+';\
    pa1 = '\E,' | '\EJ,';\
    pa2 = '\E.' | '\EJ.';\
    pa3 = '\E/' | '\EJ/';\
    cursel = '^k';\
    reset = '^r';\
    master_reset = '^c';\
    treq = '^t';\
}
!
```

*!--- This keymap has DELETE as backspace.*

```

!
keymap ibm3101 \
ibm3101|3101{\
    nl = '^m';\
    clear = '\EL';\
    enter = '^h';\
    tab = '^i';\
    btab = '\E^i' | '\EJ^i';\
    left = '\ED';\
    right = '\EC';\
    up = '\EA';\
    down = '\EB';\
    home = '\EH';\
    delete = ' '; \
    eeof = '\EI';\
    einp = '\EK';\
    insrt = '\E ' | '\EJ ';\
    dp = '^d';\
    fm = '^f';\
    pfk1 = '\E1' | '\EJ1';\
    pfk2 = '\E2' | '\EJ2';\
    pfk3 = '\E3' | '\EJ3';\
    pfk4 = '\E4' | '\EJ4';\
    pfk5 = '\E5' | '\EJ5';\
    pfk6 = '\E6' | '\EJ6';\
    pfk7 = '\E7' | '\EJ7';\
    pfk8 = '\E8' | '\EJ8';\
    pfk9 = '\E9' | '\EJ9';\
    pfk10 = '\E0' | '\EJ0';\
    pfk11 = '\E-' | '\EJ-';\
    pfk12 = '\E=' | '\EJ=';\
    pfk13 = '\E!' | '\EJ!';\
    pfk14 = '\E@' | '\EJ@';\
    pfk15 = '\E#' | '\EJ#';\
    pfk16 = '\E$' | '\EJ$';\
    pfk17 = '\E%' | '\EJ%';\
    pfk18 = '\E^^' | '\EJ^^';\
    pfk19 = '\E&' | '\EJ&';\
    pfk20 = '\E*' | '\EJ*';\
    pfk21 = '\E(' | '\EJ('; \
    pfk22 = '\E)' | '\EJ)';\
    pfk23 = '\E_' | '\EJ_';\
    pfk24 = '\E+' | '\EJ+';\
    pa1 = '\E,' | '\EJ,';\

```

```
pa2 = '\E.' | '\EJ.';\
pa3 = '\E/' | '\EJ/';\
cursel = '^k';\
reset = '^r';\
master_reset = '^c';\
treq = '^t';\
}
```

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