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# Chapter 6

## Tektronix 4014 Emulation

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## Chapter Overview

This chapter describes the scope of NCSA Telnet's Tektronix 4014 emulation capabilities, and explains how to conduct Tektronix graphics emulation sessions and operations in graphics windows.

## Tektronix Graphics Emulation

NCSA Telnet can emulate the Tektronix 4014 terminal. This emulation includes text modes, Tektronix 4014 text sizing, zoom, and pan. The use of Tektronix graphics with NCSA Telnet depends on host programs that can produce graphic images. When these programs run and produce Tektronix 4014 graphics commands, NCSA Telnet automatically switches into graphics mode, opens a graphics window, and does the drawing.

### Getting Started

To start the Tektronix graphics emulator, a host program generates the Tektronix clear screen character sequence (ESC, FF) over a currently open connection. When this command is received, a graphics window opens. All graphics output from this session is redirected into that window until the window is detached from the connection window or closed.

### Using TEK Page

The TEK Page command in the Session menu provides a quick way to create a Tektronix emulation window without requiring intervention from host software. Normally the emulation window appears automatically upon receiving the clear screen command sequence from the host. You can, however, select the TEK Page command to create the window immediately.

Moreover, just as you would use the Page key on a real Tektronix terminal to clear the window for the current session, you can select TEK Page to clear a graphics window.

## Graphics Window Operations

NCSA Telnet allows you to detach, delete, zoom, print, and copy graphics windows as described in the following sections.

### Detaching a Graphics Window

To detach a graphics window, click on the text window for that graphic's connection. To click on a window without detaching its corresponding graphics window, hold down the OPTION key while you click. When a window is detached its title no longer contains the (•) character that identifies it as the active output window.

The window may be detached under the control of host software, also. The CAN character (dec 24), when received, resets the terminal to the VT102 screen emulation.

### Deleting a Graphics Window

To remove a graphics window, click on its close box.

### Zooming/Unzooming a Graphics Window

To magnify a portion of the drawing in a graphics window, drag a selection rectangle around the area to be viewed more closely. When you release the mouse button, the selected section of the drawing is expanded to take up the entire window.

To return the magnification to zero (and thus see the entire drawing), double-click anywhere in the window. Figures 7.1 and 7.2 show pictures of the same drawing in windows at normal and zoomed magnification, respectively.

You can copy and print the contents of zoomed or unzoomed windows. (When you copy or print a zoomed window, only the visible portion of the window is copied or printed.)

Figure 6.1 Normal Tektronix Image

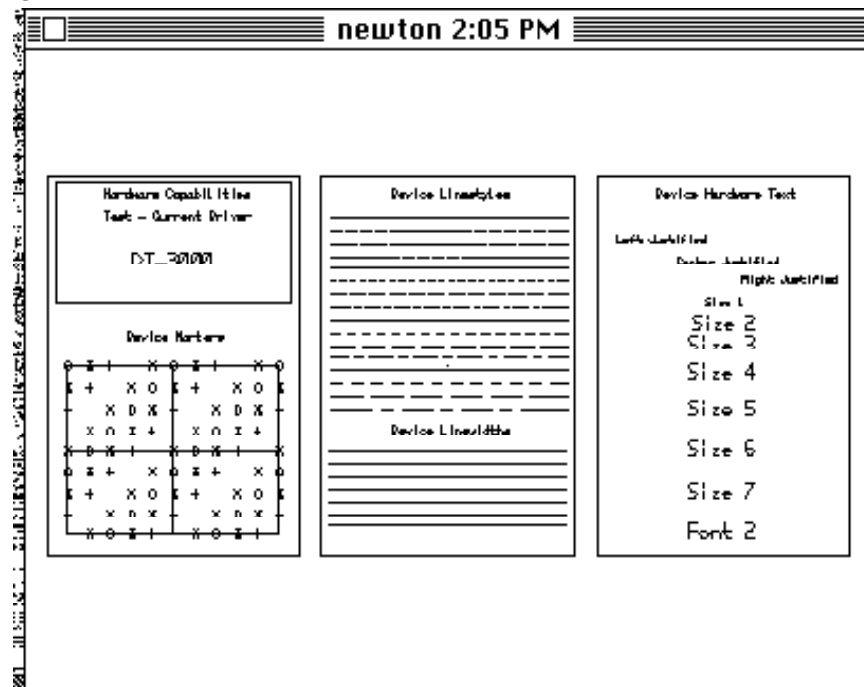
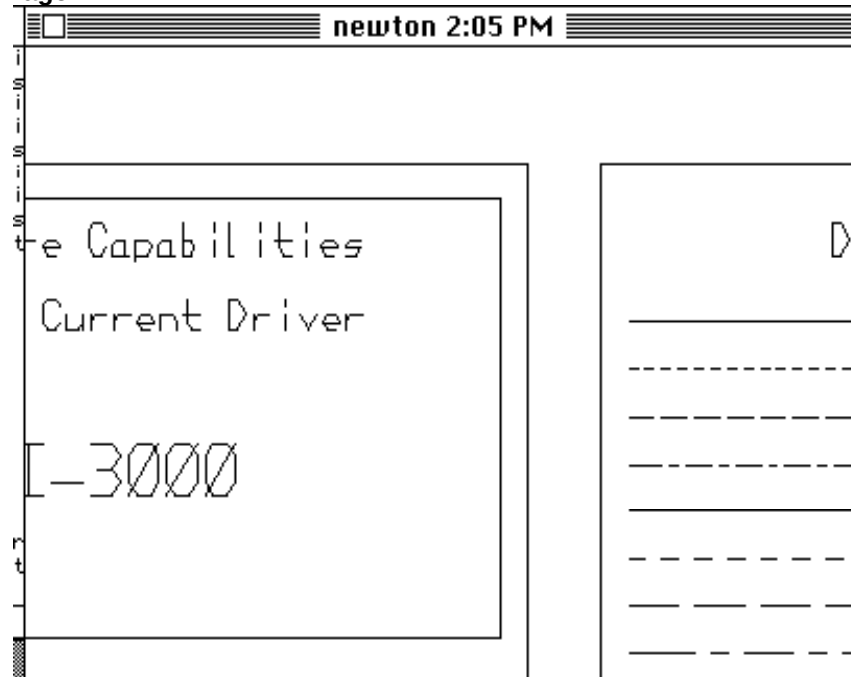


Figure 6.2 Zoomed Tektronix Image



### Copying a Graphics Window

To copy the contents of a graphics window onto the Macintosh Clipboard, activate the window by clicking on it and choose Copy from the Edit menu. Now you can paste the graphic into another Macintosh application.

### Printing a Graphics Window

To print the contents of a graphics window on a local printer or a printer on the AppleTalk network, activate the window by clicking on it and choose Print Selection from the File menu.

All graphics are scaled to fit the page and are centered. To achieve the greatest resolution on a LaserWriter, set the Reduce or Enlarge option in the Page Setup dialog box to 25 percent (see Figure 6.3). This does not change the size of the image, but makes the lines thinner. For more information about the Page Setup dialog box, refer to your Macintosh user's guide.

Figure 6.3 Page Setup Dialog Box

